United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 500
Main Post-West Area

NJDEP UST Registration No. 81533-75
DICAR No. 97-07-08-1439-02

June 2000

UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 500

MAIN POST-WEST AREA
NJDEP UST REGISTRATION NO. 81533-75
DICAR NO. 97-07-08-1439-02

JUNE 2000

PREPARED FOR:

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

PREPARED BY:

VERSAR
1900 FROST ROAD
SUITE 110
BRISTOL, PA 19007

PROJECT NO. 4435-018

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EXECUTIVE SUMMARY

UST Closure

On July 8, 1997, a steel underground storage tank (UST) was closed by removal in accordance with New Jersey Department of Environmental Protection (NJDEP) closure procedures at the Main Post-West area of the U S Army Fort Monmouth, Fort Monmouth, New Jersey The UST, NJDEP Registration No 0081533-75 (Fort Monmouth ID No 500), was located northeast of Building 500 UST No 0081533-75 was a 5,000 gallon #2 fuel oil UST

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 No holes were noted in the UST Stained soil was observed at the east end of the tank, adjacent to the fill port The NJDEP hotline was notified and the case was assigned DICAR No 97-07-08-1439-02 Approximately 48 cubic yards of potentially contaminated soil were removed from the excavated area and stored at the Fort Monmouth petroleum contaminated soil staging area Soil samples, which were collected after the removal of the potentially contaminated soil, contained TPHC concentrations ranging from non-detect to 975 96 mg/kg Groundwater was not encountered

All post excavation soil samples collected from the UST excavation at Building 500 contained TPHC concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N J.A C 7 26D and revisions dated February 3, 1994) Following receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with a combination of uncontaminated excavated soil and certified clean fill The excavation site was then restored to its original condition

In response to the observation of potentially contaminated soil and the potential of groundwater contamination, two (2) groundwater samples were collected at Building 500 On March 27, 2000, and April 29, 2000, Building 500 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 81533-75 at Building 500

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No 81533-75, was closed at Building 500 at the Main Post-West area of U S Army Fort Monmouth, Fort Monmouth, New Jersey on July 8, 1997. Refer to the site location map on Figure 1 This report presents the results of the Department of Public Works' (DPW) implementation of the UST Decommissioning/Closure Plan approved by the NJDEP The UST was a steel 5,000-gallon tank containing No. 2 fuel oil

Decommissioning activities for UST No 81533-75 complied with all applicable Federal, State, and Local laws and ordinances in effect at the date of decommissioning These laws included but were not limited to N J A C 7 14B-1 et seq , N J A C 5 23-1 et seq , and Occupational Safety and Health Administration (OSHA) 1910 146 & 1910.120 All permits including but not limited to the NJDEP approved Decommissioning/Closure Plan were posted onsite for inspection The decommissioning activities were conducted by DPW personnel who are registered and certified by the NJDEP for performing UST closure activities Closure of UST No 81533-75 proceeded under the approval of the NJDEP Bureau of Federal Case Management (NJDEP-BFCM) The Standard Reporting Form and signed Site Assessment Summary form for UST No 81533-75 are included in Appendices A and B, respectively

After removal of the potentially contaminated soil, the site was assessed Based on inspecting the UST, field screening of remaining subsurface soils, and reviewing analytical results of soil samples and groundwater samples, the DPW has concluded that no significant historical discharges are associated with the UST or associated piping

This UST Closure and Site Investigation Report has been prepared by Versar, to assist the U S Army DPW in complying with the NJDEP regulations The applicable NJDEP regulations at the date of closure were the *Interim Closure Requirements for Underground Storage Tank Systems* (N J A C 7 14B-1 et seq October 1990 and revisions dated November 1, 1991)

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

1.2 SITE DESCRIPTION

Building 500 is located in the Main Post-West area of the Fort Monmouth Army Base UST No 0081533-75 was located northeast of Building 500 and appurtenant copper piping ran approximately eleven (11) feet southeast from the excavation to Building 500. A remote fill ran approximately seventeen (17) feet northwest from the excavation A site map is provided on Figure 2

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 500 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 A geological map is provided on Figure 1A

Regional Geology

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

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

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

Local Geology

Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Main Post area The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile The upper member (Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish brown clayey, medium-to-coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski) The lower member (Sandy Hook) is a dark gray to black, medium-to-fine

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

Hydrogeology

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

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

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

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

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

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

Building 500 is located approximately 800 feet north of Husky Brook, the nearest water body Based on the Main Post topography, the groundwater flow in the area of Building 500 is anticipated to be to the south

1.3 HEALTH AND SAFETY

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

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

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

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping After removal of the associated piping, a manway was made in the UST to allow for proper cleaning The UST was completely emptied of all liquids prior to removal from the ground Approximately 340 gallons of liquid from the UST and its associated piping were transported by Lionetti Oil Recovery Company to Lionetti Oil Recovery Company, Inc facility, a NJDEP-approved petroleum recycling and disposal company located in Old Bridge, 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 No holes or punctures were noted in the UST during the inspection by the Sub-Surface Evaluator Soils surrounding the UST were screened visually and with an OVA for evidence of contamination Stained soil was observed at the east end of the tank, adjacent to the fill port Approximately 48 cubic yards of potentially contaminated soil were removed from the excavated area and transported to the Main Post petroleum contaminated soil holding area Soil screening was also performed along the piping associated with the UST No contamination was noted anywhere along the piping length Soil samples, which were collected after the removal of the potentially contaminated soil, contained TPHC concentrations ranging from non-detect to 975 96 mg/kg Groundwater was not encountered See Figure 3 for a cross-sectional view of the excavated area

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported in compliance with all applicable regulations and laws Please refer to Appendix D for the UST Disposal Certificate and Appendix G for photographs of the tank

The UST was labeled prior to transport with the following information

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and TPHC analysis results from the post-excavation soil samples, approximately 48 cubic yards of potentially contaminated soil were removed from the UST excavation All potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets Potentially contaminated soils were transported to the soil staging area Soils that did not exhibit signs of contamination were used as backfill following the removal of the UST Groundwater was not encountered

2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

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

The following Parties participated in Closure and Site Investigation Activities.

- Project Manager: Eugene Lesinski
  Employer. U S Army, Fort Monmouth
  Phone Number (732) 532-6224
  NJDEP Certification No 14537

- Analytical Laboratory. U.S Army Fort Monmouth Environmental laboratory
  Contact Person Daniel K Wright
  Phone Number (908) 532-4359
  NJDEP Company Certification No 13461

- Hazardous Waste Hauler Lorco Petroleum Services
  Contact Person Don Taguinot
  Phone Number (908) 721-0900

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP Certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material Approximately 48 cubic yards of potentially petroleum contaminated soil were removed from the excavated area and transported to the Fort Monmouth petroleum contaminated soil holding area Soils were removed from the excavation until no evidence of contamination remained Groundwater was not encountered

2.3 SOIL SAMPLING

On July 9 and 10, 1997, following the removal of the UST and associated piping, post-excavation soil samples A, B, C, D, E, F, G, H, I, J, K, L, and DUP C were collected from a total of twelve (12) locations of the UST excavation Excavation floor samples A, B, D, E, F, H, and K were collected at a depth of 9 0 feet bgs Piping samples C, I, L and DUP C were collected at a depth of 2 0 feet bgs All samples were analyzed for total petroleum hydrocarbons (TPHC) and total solids

DPW personnel in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual performed the site assessment A summary of sampling activities including parameters analyzed is provided in Table 1 The post-excavation soil samples were collected using NJDEP *Field Sampling Procedures Manual* (1992) standard sampling procedures Following soil sampling activities, the samples were chilled and delivered to U S Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis

2.4 GROUNDWATER SAMPLING

On March 27, 2000, and April 29, 2000, Building 500 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOC's) Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation* Refer to Appendix F for the field sampling documentation.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected on July 9 and 10, 1997 from a total of twelve (12) locations All samples were analyzed for TPHC and total solids The post-excavation sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N J A C 7 26D and revisions dated February 3, 1994) A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and the soil sampling locations are shown on Figure 4 The analytical data package is provided in Appendix E

All post-excavation soil samples collected on July 9 and 10, 1997, from the UST excavation and from below piping associated with the UST contained concentrations of TPHC below the NJDEP soil cleanup criteria Soil samples, which were collected after the removal of the potentially contaminated soil, contained TPHC concentrations ranging from non-detect to 975 96 mg/kg

3.2 GROUNDWATER SAMPLING RESULTS

No compounds were detected in the sample collected from Building 500 on March 27, 2000

The sample collected from Building 500 on April 29, 2000, contained chloroform at a concentration of 3 93 ug/l No other compounds were detected

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

Groundwater samples collected on March 27, 2000, and April 29, 2000, were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC)

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 500 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 500 on March 27, 2000, and April 29, 2000, groundwater quality at Building 500 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. 81533-75 at Building 500

TABLES

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 500, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
A	7/9/97	7/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
B	7/9/97	7/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
C	7/9/97	7/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
D	7/9/97	7/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
E	7/9/97	7/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
F	7/9/97	7/14/97	Soil	Post-excavation	TPHC	OQA-QAM-025
G	7/9/97	7/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
H	7/9/97	7/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
I	7/10/97	7/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
J	7/10/97	7/14/97	Soil	Post-excavation	TPHC	OQA-QAM-025
K	7/10/97	7/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
L	7/10/97	7/14/97	Soil	Post-excavation	TPHC	OQA-QAM-025
DUPC	7/10/97	7/14/97	Soil	Post-excavation	TPHC	OQA-QAM-025

Note
* TPHC Total Petroleum Hydrocarbons

TABLE 1

SUMMARY OF SAMPLING ACTIVITIES
BUILDING 500, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Sampling Method**
5285 03	3/27/00	4/4/00	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
5384 01	4/29/00	5/3/00	Aqueous	Groundwater	VOCs, SVOCs	PPNDP

Note
*VOCs Volatile Organic Compounds plus 15 tentatively identified compounds
*SVOCs Semivolatile organic compounds plus 15 tentatively identified compounds
**PPNDP Passively Placed Narrow Diameter Point

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 500, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Parameters	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
A/9 0'=	2787 01	7/9/97	7/14/97	Total Solid	--	--	83 08 %	--	--
				TPHC	187	yes	ND	10,000	No
B/9 0'=	2787 02	7/9/97	7/14/97	Total Solid	--	--	87 18 %	--	--
				TPHC	177	Yes	ND	10,000	No
C/2 0'=	2787 03	7/9/97	7/14/97	Total Solid	--	--	86 15 %	--	--
				TPHC	180	Yes	ND	10,000	No
D/9 0'=	2787 04	7/9/97	7/14/97	Total Solid	--	--	80 11 %	--	--
				TPHC	194	yes	ND	10,000	No
E/9 0'=	2787 05	7/9/97	7/14/97	Total Solid	--	--	81 36 %	--	--
				TPHC	186	yes	ND	10,000	No
F/9 0'=	2787 06	7/9/97	7/14/97	Total Solid	--	--	81 26 %	--	--
				TPHC	187	yes	ND	10,000	No
G/9 0'=	2787 07	7/9/97	7/14/97	Total Solid	--	--	80 07 %	--	--
				TPHC	193	yes	ND	10,000	No
H/9 0'=	2787 08	7/9/97	7/14/97	Total Solid	--	--	90 01 %	--	--
				TPHC	173	yes	ND	10,000	No

Note

* Total Solid results are expressed as a percentage

** NJDEP Residential Direct Contact soil cleanup criteria for total organics

ND Not detected above stated method detection limit

TPHC Total Petroleum Hydrocarbons

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 500, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Parameters	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
I/2 0'=	2787 09	7/10/97	7/14/97	Total Solid	--	--	82 51 %	--	--
				TPHC	189	yes	ND	10,000	No
J/2 0'=	2787 10	7/10/97	7/14/97	Total Solid	--	--	90 47 %	--	--
				TPHC	169	Yes	975 76	10,000	No
K/9 0'=	2787 11	7/10/97	7/14/97	Total Solid	--	--	78 24 %	--	--
				TPHC	190	Yes	ND	10,000	No
L/2 0'=	2787 12	7/10/97	7/14/97	Total Solid	--	--	84 13 %	--	--
				TPHC	179	yes	ND	10,000	No
DUPC/2 0'=	2787 13	7/10/97	7/14/97	Total Solid	--	--	86 03 %	--	--
				TPHC	175	Yes	415 35	10,000	No

Note

* Total Solid results are expressed as a percentage

** NJDEP Residential Direct Contact soil cleanup criteria for total organics

ND Not detected above stated method detection limit

TPHC Total Petroleum Hydrocarbons

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name FMETL NJDEP # 13461 Matrix (soil/water) WATER

Date Sampled 3/27/00 Location 500 Lab Sample ID 5285 03(500-1)

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 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name FMETL NJDEP # 13461 Matrix (soil/water) WATER

Date Sampled 3/27/00 Location 500 Lab Sample ID 5285 03(500-1)

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 3
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name FMETL NJDEP # 13461 Matrix (soil/water) WATER

Date Sampled 3/27/00 Location 500 Lab Sample ID 5285 03(500-1)

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 3
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name FMETL NJDEP # 13461 Matrix (soil/water) WATER

Date Sampled 3/27/00 Location 500 Lab Sample ID 5285 03(500-1)

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 3

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name FMETL NJDEP # 13461 Matrix (soil/water) WATER

Date Sampled 4/29/00 Location 500 Lab Sample ID 5384 01(500-1)

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	3 93 ug/L	--	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 3

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name FMETL NJDEP # 13461 Matrix (soil/water) WATER

Date Sampled 4/29/00 Location 500 Lab Sample ID 5384 01(500-1)

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 3
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name FMETL NJDEP # 13461 Matrix (soil/water) WATER

Date Sampled 4/29/00 Location 500 Lab Sample ID 5384 01(500-1)

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 3
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name FMETL NJDEP # 13461 Matrix (soil/water) WATER

Date Sampled 4/29/00 Location 500 Lab Sample ID 5384 01(500-1)

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

Mapped, edited and published by the Geological Survey

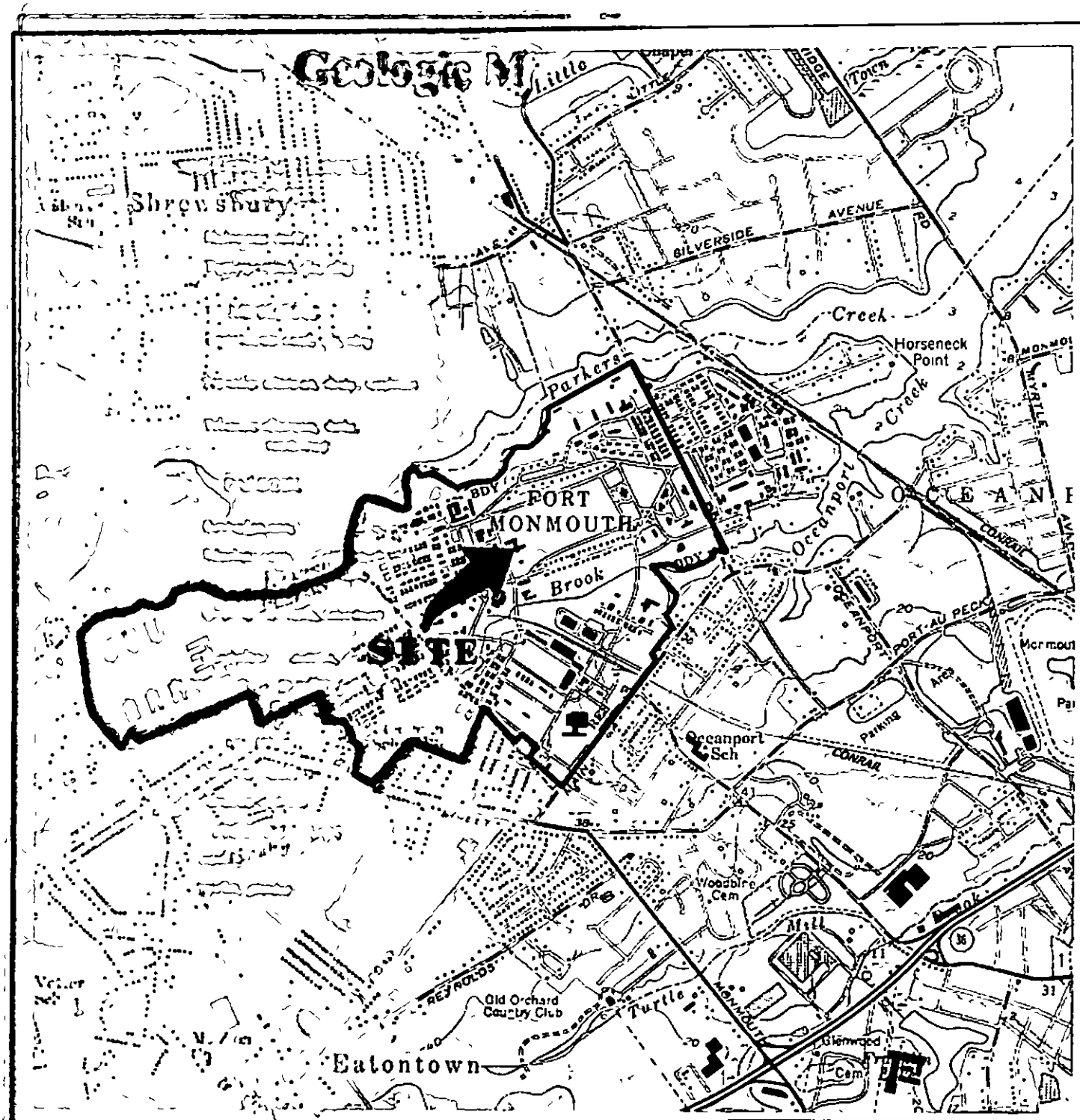


FIGURE 1

LOCATION MAP
Building 500
Main-Post West
Fort Monmouth Army Base
Monmouth County, NJ

VERSAR
Engineers, Managers, Scientists, & Planners
Bristol, PA

Scale 1" = 2000'	Date July 1997

Geologic Map of New Jersey

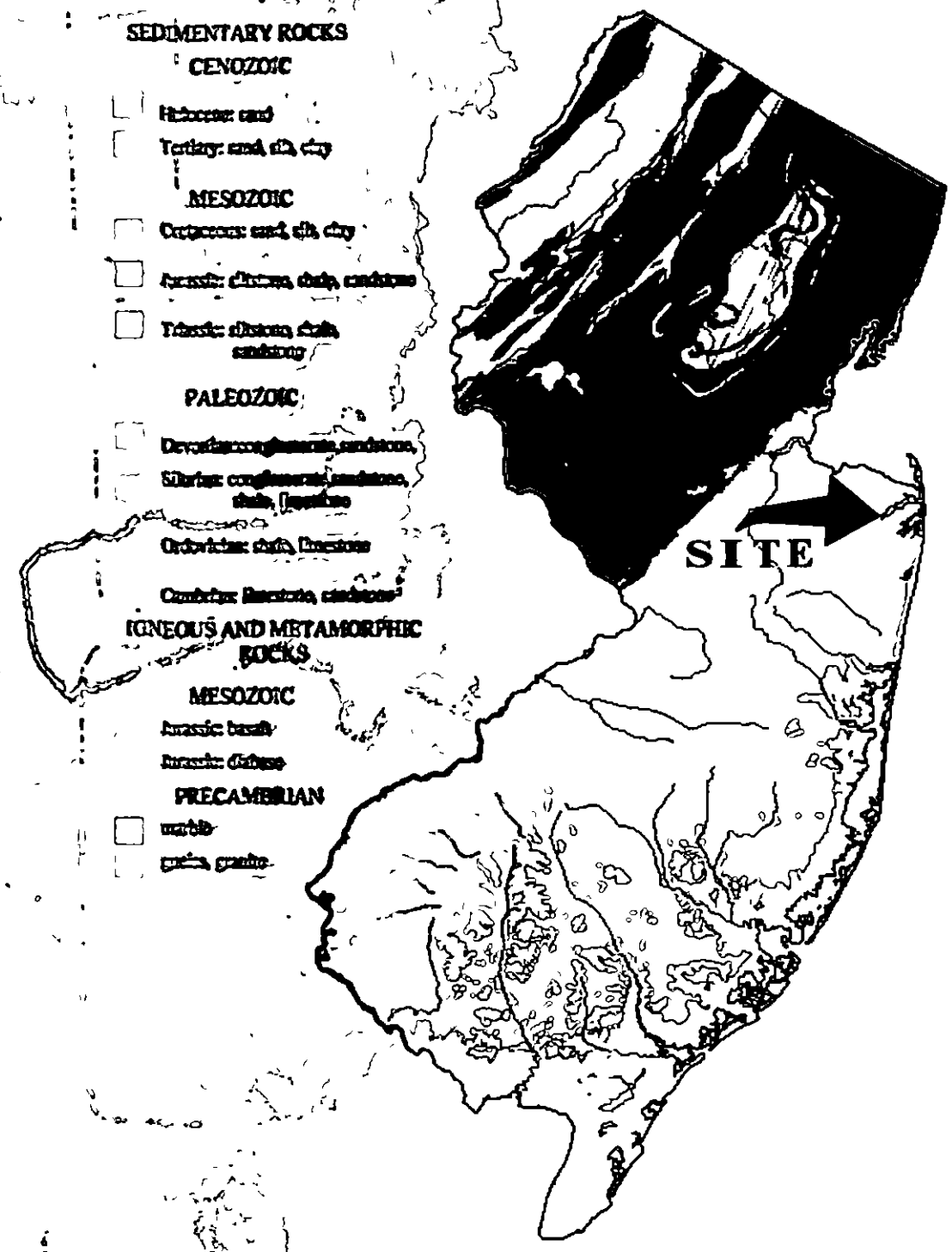


FIGURE 1A
GEOLOGICAL MAP
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
Engineers, Managers, Scientists & Planners
Bristol, Pennsylvania

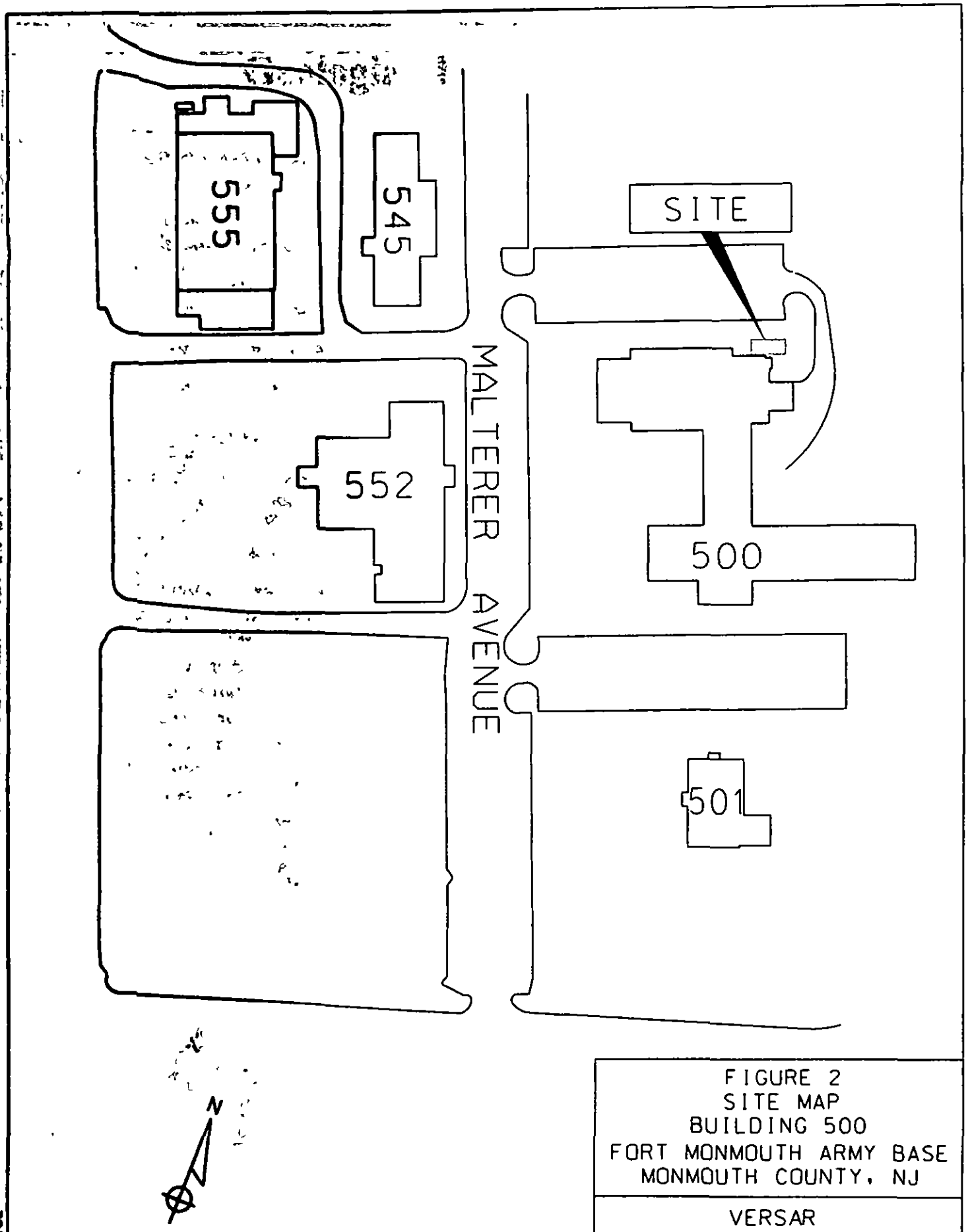


FIGURE 2
SITE MAP
BUILDING 500
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

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

SCALE: 1"=100'

DATE: JULY 1997

900 FIG2

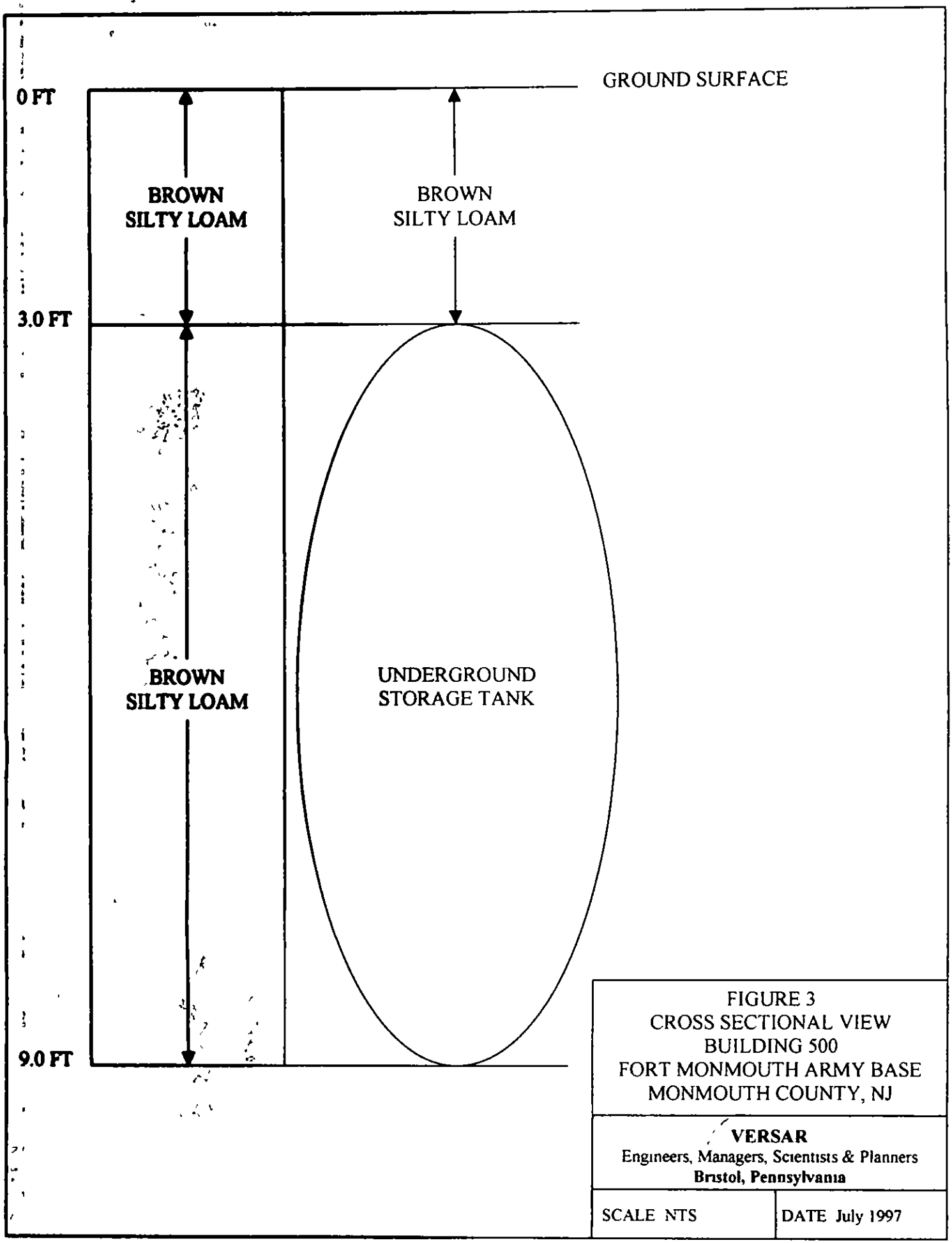


FIGURE 3
CROSS SECTIONAL VIEW
BUILDING 500
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
Engineers, Managers, Scientists & Planners
Bristol, Pennsylvania

SCALE NTS	DATE July 1997

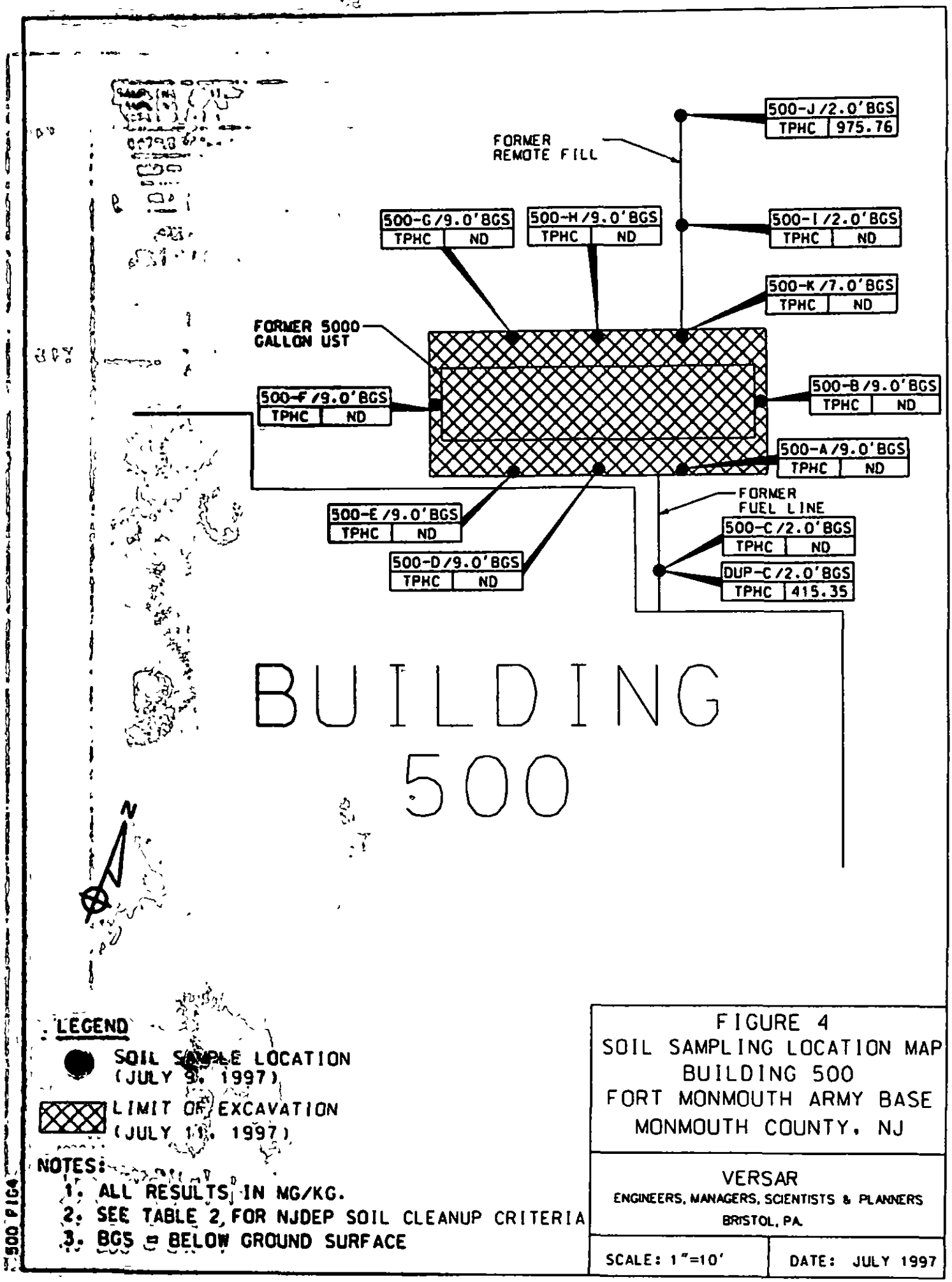


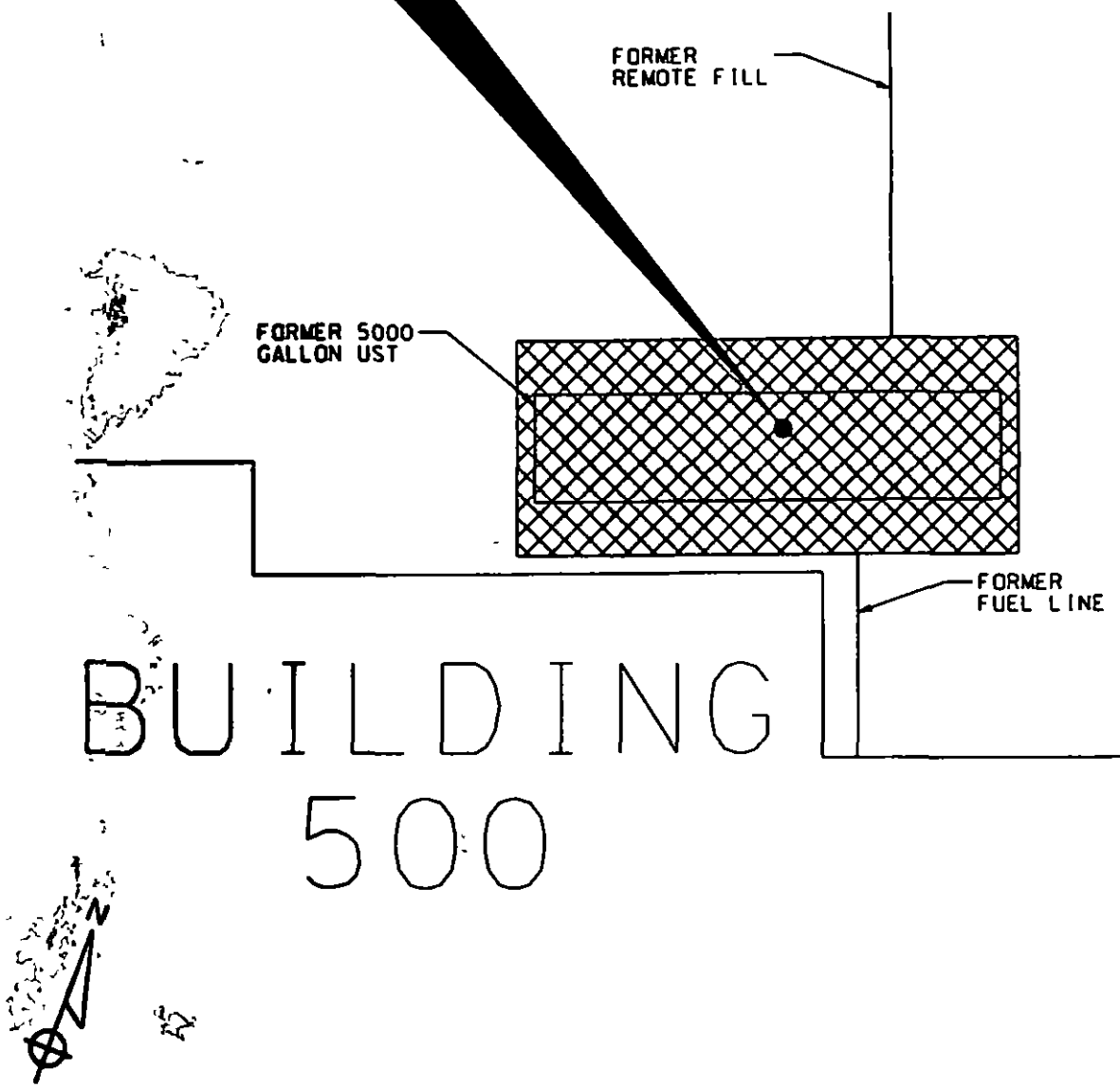
FIGURE 4
SOIL SAMPLING LOCATION MAP
BUILDING 500
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

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

SCALE: 1"=10'

DATE: JULY 1997

SAMPLING LOCATION: SAMPLING DEPTH: SAMPLING DATE:	HIGHER OF NJDEP GWQS AND PQL	BLDG 500 5.5-8' BGS 3/27/00	BLDG 500 5.5-8' BGS 4/29/00
VOLATILE ORGANIC COMPOUNDS:			
CHLOROFORM:	6 UG/L	ND	3.93 UG/L
SEMIVOLATILE ORGANIC COMPOUNDS:		ND	ND



LEGEND

- GROUNDWATER SAMPLE LOCATION (MARCH 27, 2000 AND APRIL 29, 2000)
- LIMIT OF EXCAVATION (JULY 11, 1997)

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 500
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

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

SCALE: 1"=10' | DATE: JULY 1997

500 FIGS.

Appendix A

APPENDIX A

NJDEP-STANDARD REPORTING FORM

State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
CN 028
Trenton NJ 08625-0029

ATTN UST Program
(609) 984-3156

For State Use Only

Date Rec'd _____
Auth. _____
Routing _____
UST NO _____

STANDARD REPORTING FORM
for reporting activities at an UST facility:

___ General Facility Information Changes
_X_ Closure (Abandonment or Removal)
___ Temporary Closure
___ Change in Service
___ Sale or Transfer
___ Substantial Modification
___ Financial Responsibility
___ Address Change Only

Check ONLY One Type of Activity – Complete Form For That Activity

(More than one tank can be listed per activity)

*** NOTE *** ALL NEW tank installations at existing registered facilities must submit a Registration Questionnaire for the new tanks.

Answer questions 1 through 5 and others as applicable

1. Company name and address (as it appears on registration questionnaire): U.S. ARMY – FORT MONMOUTH
DPW – BUILDING 173
FORT MONMOUTH NJ 07703
ATTN: EUGENE W. LESINSKI

2. Facility name and location (if different from above): _____

3. Contact person for this activity: GENE LESINSKI
Telephone Number: (908) 532-0989

4. The identification number of the affected tank as it appears in Question Number 12 on the Registration Questionnaire.
BLDG 504 — 75

5. Registration Number (if known): UST - 0081533

6. For GENERAL FACILITY INFORMATION changes (address, telephone, contact person, etc. – supply NEW information only)

a. Facility name: _____
b. Facility location: _____
c. Owner's mailing address: _____
_____
_____ NJ _____
_____
d. Block: _____ Lot: _____
e. Contact person (facility operator): _____
f. Contact telephone number: (_____) _____ – _____
g. Other (Specify): _____

(OVER)

a. ☐ Abandonment Date: ___/___/___ Case No: ___ ___

Attach the necessary implementation schedule (3 copies) and all documents needed for abandonment per N.J.A.C. 7:14B-9.1 (d)

b. ☒ Removal Date: 7/18/97 Case No. _____

Attach the necessary implementation schedule (3 copies)

8. For CHANGES IN HAZARDOUS SUBSTANCES STORED (check all that apply)

a. ☐ Temporary Closure (12 month maximum time – see N.J.A.C. 7:14B-9.1(b)) Remove all hazardous substances, leave tank in place

b. ☐ Change in service from a regulated substance to a non-regulated substance. Tank must be cleaned and site assessment performed per N.J.A.C. 7:14B-9.1(e).

c. ☐ Changes in service from one regulated hazardous substance to another regulated hazardous substance.

Tank No _____ Old _____ New _____

Tank No _____ Old _____ New _____

Tank No _____ Old _____ New _____

(Attach additional sheets if more space is needed)

9. For TRANSFER OF OWNERSHIP. Effective Date: ___/___/___

a. New Owner (operator) _____

b. New Facility Name _____

_____

_____ NJ _____

_____

County

c. Closing Attorney _____ Tele: (___) _____ – _____

10. For SUBSTANTIAL MODIFICATIONS (to include any retrofitted activity – e.g. the addition of spill/overfill protection, monitoring systems, cathodic protection, etc.):

a. Type of Modification _____ Date: ___/___/___

b. "NOTE" Substantial modifications require a permit under N.J.A.C. 7:14B-10.

11. For changes in FINANCIAL RESPONSIBILITY to (check appropriate changes and attach copies of new information):

a. Policy Type: ☐ d. Company/Carrier: ☐

b. Policy Number: ☐ e. Expiration Date: ☐

c. Other: ☐

_____

_____

_____

(Specify)

NOTE: ALL appropriate and applicable permits, licenses and certificates required by the above activity(ies) from all local, state and/or federal agencies must be obtained separately from this notification.

CERTIFICATION

"This registration form shall be signed by the highest ranking individual at the facility with overall responsibility for the facility (N.J.A.C. 7:14B-2.3 (a) 1)."

"I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate or incomplete information, including fines and/or imprisonment."

Signature: _____

Name (print or type): JAMES OTT

Title: DIRECTOR - DEPT OF PUBLIC WORKS Date: 7/24/97

BSS-UST

(INT/MOD-2/92)

Appendix B

APPENDIX B

SITE ASSESSMENT SUMMARY

(12/97) New Jersey Department of Environmental Protection

Site Remediation Program

UST Site/Remedial Investigation Report Certification Form

A. Facility Name U S Army Fort Monmouth New Jersey

Facility Street Address Directorate of Public Works Building 173

Municipality Oceanport County Monmouth

Block _____ Lot(s) _____ Telephone Number 732-532-6224

B. Owner (RP)'s Name _____

Street Address _____ City _____

State _____ Zip _____ Telephone Number _____

C. (Check as appropriate)

___ Site Investigation Report (SIR) $500 Fee

___ Remedial Investigation Report (RIR) $1000 Fee

_X_ NA – Federal Agreement

D. (Complete all that apply)

- Assigned Case Manager Ian Curtis, Federal Case Manager
- UST Registration Number 81533-75 (7 digits)
- Incident Report Number 97 – 07 – 08 – 1439 – 02 (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 Eugene Lesinski Signature See signed subsurface removal log UST Cert No 14537

Firm U S Army Fort Monmouth Firm's UST Cert Number NA-U S Army

Firm Address Directorate of Public Works Building 173 City Fort Monmouth

State 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 James Ott

Company Name U S Army Fort Monmouth Date 9/14/00

U^ ARMY, SELFM-PW-E\^

DAILY UST SUBSURFACE REMOVAL LOG

BLDG #: 506 REG.# 0085533 - 75 CLOSURE#. N/A
DATE: 7-8-97 TOA: 1400 TOD: 1445
GOV SSE LESINSKI NJDEP CERT.# 0014537
REMOVAL CONTRACTOR ~~SAI Inc~~ TVS
CLOSURE SUPERVISOR DeMARTINIS NJDEP CERT.# —
WEATHER SUNNY - 55°F

ACTIVITY	YES / NO
THE SUPERVISOR (CLOSURE CERT) WAS ON-SITE DURING ALL CLOSURE RELATED ACTIVITIES	Y
THE SSE WAS ON-SITE DURING UST REMOVAL AND SITE SCREENING AND SAMPLING ACTIVITIES	Y
ALL ON-SITE PERSONNEL HAD TRAINING IAW ALL SAFETY REQUIREMENTS (E G 29CFR)	Y
A CONFINED ENTRY PERMIT WAS COMPLETED AND POSTED ON-SITE BY THE CONTRACTOR	N/A
THE UST WAS PLACED ONTO PLASTIC, SCRAPED OFF, INSPECTED FOR HOLES AND PHOTOGRAPHED	Y
A DISCHARGE WAS REPORTED TO THE NJDEP (609-292-7172), CASE# 97-7-8-1439-02	Y
PHOTOS HAVE UST#, BLDG #, DATE, TIME, NAME OF SSE AND DESCR WRITTEN ON BACK	Y
GROUNDWATER WAS ENCOUNTERED AT ____ FEET BG, A SHEEN (WAS/WAS NOT) OBSERVED ON GW	N PER N/A
IF OVA/Hnu WAS USED WAS IT CAL AND FOUND TO BE OPERATIONAL (cal data on COC)	N/A
IF SAMPLES WERE TAKEN COC, SCALED SITE MAP (VERT SOIL HORIZONS AND PLOT PLAN)	N/A
ALL SAMPLE COLLECTION ACTIVITIES WERE AS DESCRIBED IN THE NJDEP FSPM, 1992	N/A
ALL SAMPLING WAS BIASED TOWARD HIGHEST OVA/FID RECORDED SITES IAW 7 26E-3 6 et seq.	N/A
ALL PETROL CONT SOILS WERE SECURED FROM THE WEATHER BY CLOSE OF BUSINESS TODAY	Y
THE SSE AUTHORIZED BACKFILLING THE EXCAVATION (STONE TO 1" ABOVE GROUNDWATER)	N/A
ADDITIONAL NOTES WERE TAKEN AND ARE RECORDED ON THE BACK OF THIS FORM	N
THE FOLLOWING DOCUMENTS WERE ADDED TO THE PROJECT FOLDER TODAY (CIRCLE EACH) SCRAP TICKET, CSE PERMIT, ACCIDENT REPORT, HAZ WASTE MANIFEST, DAILY UST CLOSURE LOG, SCALED SITE MAP (SAMPLING), SRF CLOSURE, CHAIN OF CUSTODY, SOIL ANALYTICAL RESULTS, CLEAN FILL TICKETS(IN YDS^3), PHOTOGRAPHS (UST, EXCAVATION, SAMPLING POINTS)	Y

CHECK ALL BOXES, LEAVE NO BLANKS

I certify under penalty of law that tank decommissioning activities were performed in compliance with N J A C 7.14B-9 2(b)3 and 7 26 et seq I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, ~~including~~ fines and/or imprisonment

SIGNATURE _____ DATE 7-8-97

ca\ms\ust\removal\sitessls doc

Appendix C

APPENDIX C

WASTE MANIFEST

LORCO PETROLEUM SERVICES
RD 1, BOX 5A - OLD BRIDGE, NJ 08857

NON-HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: NJ3210020597 | Manifest Document No: 05879 | 2 Page 1 of 1 | NHZ 005879

3 Generator's Name and Mailing Address: U.S. ARMY COMMUNICATIONS ELECTRONICS COMMAND
MAIL POST SLO JOS FALLON ATTN: SELFHAW-EV
FORT MONMOUTH NJ 07703

4 Generator's Phone: (908) 532-6223

5 Transporter 1 Company Name: LIONETTI OIL RECOVERY CO INC | 6 US EPA ID Number: N J D 0 8 4 0 4 4 0 6 4 | A Transporter's Phone: 908 721-0900

7 Transporter 2 Company Name | 8 US EPA ID Number | B Transporter's Phone

9 Designated Facility Name and Site Address: LIONETTI OIL RECOVERY CO INC DBA LORCO PETROLEUM SVCS
RUNYON&CHEESEQUAKE RDS
OLD BRIDGE, NJ 08857 | 10 US EPA ID Number: N J D 0 8 4 0 4 4 0 6 4 | C Facility's Phone: 908 721-0900

11 Waste Shipping Name and Description	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol
a. PETROLEUM OIL(PETROLEUM OIL) COMBUSTIBLEL LIQUID UN1270 PGIII	0 0 1	T	XXX 962	G
b.				
c.				
d.				

D Additional Descriptions for Materials Listed Above:
T.L PETROLEUM OIL 95%
WATER 5%

E Handling Codes for Wastes Listed Above:
T04 FILTRATION

15 Special Handling Instructions and Additional Information:
24 HR EMERGENCY RESPONSE#(908) 721-0900
DECAL#87084 ERG#128 DEXSIL TEST KIT RESULTS N/A PPM
MANIFEST USED FOR TRACKING PURPOSES ONLY

16 GENERATOR'S CERTIFICATION I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Printed/Typed Name: EUGENE W LESINSKI | Signature | Month Day Year: 08 07 97

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: JON TAGUINOT | Signature | Month Day Year: 08 07 97

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 waste materials covered by this manifest except as noted in Item 19

Printed/Typed Name: Eric L Bell | Signature | Month Day Year: 08 07 97

GENERATOR

TRANSPORTER

FACILITY

ORIGINAL - RETURN TO GENERATOR

Appendix D

APPENDIX D

UST DISPOSAL CERTIFICATE

THIS CHECK IS DELIVERED FOR PAYMENT ON THE FOLLOWING ACCOUNTS

DATE		AMOUNT	
TOTAL OF INVOICES			
LESS ___ % DISCOUNT			
LESS FREIGHT			
LESS			
TOTAL DEDUCTIONS			
AMOUNT OF CHECK			

MAZZA & SONS, INC.
RECYCLING DIVISION
3230 SHAFPO RD
TINTON FALLS, NJ 07753

1254

55-7233/2212

DATE 7/9/97

PAY TO THE ORDER OF Tecom Vinnell $ 221 90

Two Hundred Twenty One + 90/100 DOLLARS

Sovereign Bank

John K Lodge

⑈001254⑈ ⑆221272332⑆000 1091099286⑈

MAZZA & SONS, INC.

Metal Recyclers
3230 Shafto Rd
Tinton Falls, NJ
(908) 922-9292

NO. _____

DATE. 9 July 97

B.500
B.484

Customer's Name Tecom Vinnell

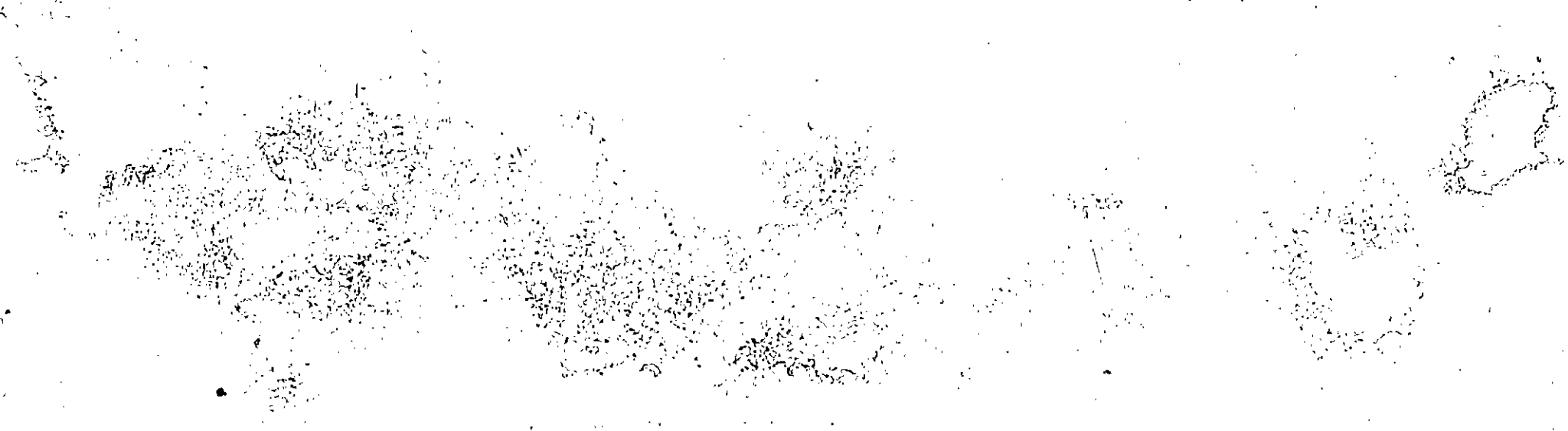
Address _____

	Weight	Price		Weight	Price
Cast Iron				Lt Copper	
Steel			30920 LB	Brass	
Truck		221.90			
Lt Iron			24580 LB	Alum Clean	
Copper #1				Lead	
Copper #2			6340	Stainless	
			Ck# 1754	Battery	
					221.90
				TOTAL AMOUNT:	

JUL - 9 1997

Weigher _____ Customer _____

Appendix E



APPENDIX E

SOIL ANALYTICAL DATA PACKAGE

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEPE # 13461

REPORT OF ANALYSIS

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

Project: Total Petroleum Hydrocarbons
96-1262
Bldg 500

Project # 2787
Date Rec 07/10/97
Date Compl 07/22/97
Released by

Daniel K Wright
Laboratory Director

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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

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

	No	Yes
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, & samples	__ NA __	
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)

Additional Comments

Laboratory Authentication Statement

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

Daniel K Wright
Laboratory Manager

Fort Monmouth Environmental Testing Laboratory

Bldg 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (908)532-4359 Fax (908)532-3484 EMail appleby@doim6 monmouth army mil
NJDEP Certification #13461

Chain of Custody Record

Customer: GENE LESINSKI - DPW
Phone #: 20989
( )DERA (X)OMA ( )Other _____
Project No 96-1262
Location B 500
Samplers Name / Company: GARY DiMARTINIS - TVS

Analysis Parameters: TPHC; % Solids; Mansell; OVA

Comments: * = SAMPLES KEPT BELOW 4°C.

Lab Sample I D	Sample Location	Date	Time	Sample Type	# bottles	OVA	Remarks / Preservation Method
27870 1	500-A	7/9/97	1139	SOIL	1	ND	EXCAV. FLOOR@10*
02	500-B		1255			ND	EXC. FLOOR@9.0'
03	500-C		1307			ND	Piping Run@2.0'
04	500-D		1322			10	EXC FLOOR@9.0'
05	500-E		1325			ND	
06	500-F		1341			ND	
07	500-G		1349			ND	
08	500-H		1411			ND	
09	500-I	7/10/97	0901			ND	Piping Run@2.0'
10	500-J		0905			ND	
11	500-K		1112			5	EXC. FLOOR@9.0'
12	500-L		1122			ND	Piping Run@2.0'
13	500-DUP	—	—			—	FIELD DUPLICATE

NOTE: OVA (FAS2IN) CALIBRATED W/95 PPM CH4 & ZERO(0) AIR AT 1100 HRS. ON 7/8/97 by G DiMARTINIS *

Relinquished by (signature)	Date/Time	Received by (signature)	Relinquished by (signature)	Date/Time	Received by (signature)
[signature]	7/10/97 1524	[signature]			
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
Turnaround time (X)Standard 4 wks, ( )Rush ___ Days (_)ASAP Verbal ___ Hrs

Remarks: DEDICATED SAMPLING TOOLS USED.
*OVA CALIBRATION CHECKED @ 0845 on 7/10/97.

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

Client	U S Army	**Lab ID #**	2787
	DPW SELFM PW-EV	**Date Rec'd**	10-Jul-97
	Bldg 173	**Analysis Start**	14-Jul-97
	Ft. Monmouth, NJ 07703	**Analysis Complete**	22-Jul 97
Analysis	OQA-QAM 025	**UST Reg #**	
Matrix	Soil	**Closure #**	
Analyst	P Skelton	**DICAR #**	
Ext. Meth	Shake	**Location #**	B 500

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
2787.01	500-A	1 00	15 10	83 08	187	ND
2787.02	500-B	1 00	15 27	87 18	177	ND
2787 03	500-C	1 00	15 13	86 15	180	ND
2787.04	500 D	1 00	15 11	80 11	194	ND
2787.05	500-E	1 00	15 55	81 36	186	ND
2787.06	500-F	1 00	15 43	81 26	187	ND
2787.07	500-G	1 00	15 18	80 07	193	ND
2787.08	500 H	1 00	15 12	90 01	173	ND
2787.09	500 I	1 00	15 10	82 51	189	ND
2787.10	500-J	1 00	15 38	90 47	169	975.76
2787.11	500 K	1 00	15 79	78 24	190	ND
2787.12	500 L	1 00	15 60	84 13	179	ND
2787 13	500-DUP	1 00	15 63	86 03	175	415.35
METHOD BLANK	14-Jul-97	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 5/22/09

Laboratory Certification #13461

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

Appendix F

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. 500

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
Trip Blank	5285 01	Aqueous	27-Mar-00	03/25/00
Field Blank	5285 02	Aqueous	27-Mar-00	03/25/00
500-1 5 5-8'	5285 03	Aqueous	27-Mar-00	03/25/00

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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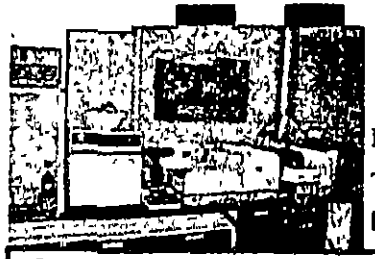
CHAIN OF CUSTODY



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

Customer: D DESAI
Phone #: X21475
( )DERA (X)OMA ( )Other:

Project No: 00-0004
Location BLDG. 500 (CHAREL)

Samplers Name / Company: MARK LAURA - TVS - PWS07

Lab Sample I D	Sample Location	Date	Time	Sample Type	# bottles	VOA + 15	KYLENE	BN + 15					Remarks / Preservation Method
5285-1	T.B.	3-25-00		AQ	2	X							HCL
2	F.B.	"	0855	"	3	X	X	X					<4°C/HCL
* 3	500-1 55-8'	"	0920	"	3	X	X	X					<4°C/HCL
4													

Comments:

Relinquished by (signature)	Date/Time	Received by (signature)	Relinquished by (signature)	Date/Time	Received by (signature)
	3 27 00 0730				
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, ( )EDD
Turnaround time (X)Standard 3 wks, ( )Rush ___ Days, ( )ASAP Verbal ___ Hrs

Remarks * CEMENT PAD @ 8' GW. ON TOP OF PAD IS @ 5.5'

print legibly

Coc xls3/16/00

METHODOLOGY SUMMARY

Methodology Summary

EPA Method 624
Gas Chromatographic Determination of Volatiles in Water

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

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

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

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID 5285 Site Bldg 500

	Date	Hold Time
Date Sampled	03/25/00	NA
Receipt/Refrigeration	03/25,27/00*	NA
Extractions		
1 Base Neutral	03/31/00	14 days
Analyses		
1 Volatile Organics	04/05/00	14 days
2 Base Neutral	04/04/00	40 days

- Samples collected and refrigerated on 03/25/00, Laboratory received the sample on Monday 03/27/00

CONFORMANCE NON-CONFORMANCE SUMMARY

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 — 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 — YES
(If not met, list those compounds, which fall outside the acceptable range)

a VOA Fraction _____

b B/N Fraction _____

c Acid Fraction N A

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 5-6-00

VOLATILES
ORGANICS

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

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

Data File	VC002807.D	Sample Name	Vblk66
Operator	Skelton	Field ID	Vblk66
Date Aquired	36621 05694	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID: **Vblk66**

Lab Name FMETL Project 000004

NJDEP# 13461 Case No 5285 Location 500 SDG No

Matrix (soil/water) WATER Lab Sample ID Vblk66

Sample wt/vol 5 0 (g/ml) ML Lab File ID VC002807 D

Level (low/med) LOW Date Received 3/27/00

% Moisture not dec Date Analyzed 4/5/00

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/L

Number TICs found 0

CAS NO	COMPOUND NAME	RT	EST CONC	Q

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

Data File	VC002808.D	Sample Name	5285.01
Operator	Skelton	Field ID	Trip Blank
Date Aquired	36621 09444	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID: TB

Lab Name FMETL Project 000004

NJDEP# 13461 Case No 5285 Location 500 SDG No

Matrix (soil/water) WATER Lab Sample ID 5285 01

Sample wt/vol 5 0 (g/ml) ML Lab File ID VC002808 D

Level (low/med) LOW Date Received 3/27/00

% Moisture not dec Date Analyzed 4/5/00

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/L

Number TICs found 0

CAS NO	COMPOUND NAME	RT	EST CONC	Q

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

Data File	VC002809.D	Sample Name	5285.02
Operator	Skelton	Field ID	Field Blank
Date Aquired	36621.12431	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID: FB

Lab Name FMETL Project 000004

NJDEP# 13461 Case No 5285 Location 500 SDG No

Matrix (soil/water) WATER Lab Sample ID 5285 02

Sample wt/vol 5 0 (g/ml) ML Lab File ID VC002809 D

Level (low/med) LOW Date Received 3/27/00

% Moisture not dec Date Analyzed 4/5/00

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/L

Number TICs found 0

CAS NO	COMPOUND NAME	RT	EST CONC	Q

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

Data File	VC002810.D	Sample Name	5285.03
Operator	Skelton	Field ID	500-1
Date Aquired	36621.15278	Mulupher	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID: 500-1

Lab Name FMETL Project 000004

NJDEP# 13461 Case No 5285 Location 500 SDG No

Matrix (soil/water) WATER Lab Sample ID 5285 03

Sample wt/vol 5 0 (g/ml) ML Lab File ID VC002810 D

Level (low/med) LOW Date Received 3/27/00

% Moisture not dec Date Analyzed 4/5/00

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/L

Number TICs found 0

CAS NO	COMPOUND NAME	RT	EST CONC	Q

BASE NEUTRAL

000036

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	BNA03820 D	Sample Name	Sblk360
Operator	Bhaskar	Misc Info	Sblk360
Date Acquired	4-Apr-00	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	BNA03820 D	Sample Name	Sblk360
Operator	Bhaskar	Misc Info	Sblk360
Date Acquired	4-Apr-00	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: **Sblk360**

Lab Name FMETL Lab Code 13461

Project 100004 Case No 5285 Location BI 500 SDG No

Matrix (soil/water) WATER Lab Sample ID Sblk360

Sample wt/vol 1000 (g/ml) ML Lab File ID BNA03820 D

Level (low/med) LOW Date Received 3/27/00

% Moisture decanted (Y/N) N Date Extracted 3/31/00

Concentrated Extract Volume 1000 (uL) Date Analyzed 4/4/00

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH 7

CONCENTRATION UNITS

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	unknown	7 01	9	J

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	BNA03822 D	Sample Name	5285 02
Operator	Bhaskar	Misc Info	Field Blank
Date Acquired	4-Apr-00	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	BNA03822.D	Sample Name	5285 02
Operator	Bhaskar	Misc Info	Field Blank
Date Acquired	4-Apr-00	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: **Field Blank**

Lab Name FMETL Lab Code 13461

Project 100004 Case No 5285 Location BI 500 SDG No

Matrix (soil/water) WATER Lab Sample ID 5285 02

Sample wt/vol 1000 (g/ml) ML Lab File ID BNA03822 D

Level (low/med) LOW Date Received 3/27/00

% Moisture decanted (Y/N) N Date Extracted 3/31/00

Concentrated Extract Volume 1000 (uL) Date Analyzed 4/4/00

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH 7

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	BNA03823 D	Sample Name	5285 03
Operator	Bhaskar	Misc Info	500-1
Date Acquired	4-Apr-00	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	BNA03823.D	Sample Name	5285 03
Operator	Bhaskar	Misc Info	500-1
Date Acquired	4-Apr-00	Sample Mulupher	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: 500-1

Lab Name FMETL Lab Code 13461

Project 100004 Case No 5285 Location BI 500 SDG No

Matrix (soil/water) WATER Lab Sample ID 5285 03

Sample wt/vol 1000 (g/ml) ML Lab File ID BNA03823 D

Level (low/med) LOW Date Received 3/27/00

% Moisture decanted (Y/N) N Date Extracted 3/31/00

Concentrated Extract Volume 1000 (uL) Date Analyzed 4/4/00

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH 7

Number TICs found 1 CONCENTRATION UNITS (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	000095-16-9	Benzothiazole	14 02	4	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	N/A
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 5/8/03

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. 500

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
500-1 5 5-8'	5384 01	Aqueous	29-Apr-00 09 25	05/01/00

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

ENCLOSURE
CHAIN OF CUSTODY
RESULTS

5/18-00
Daniel Wright/Date
Laboratory Director

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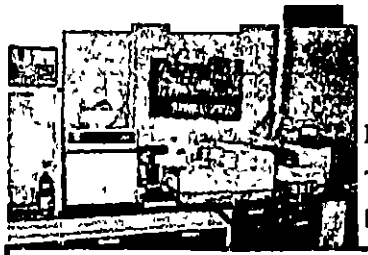
CHAIN OF CUSTODY



Fort Monmouth Environmental Testing Laboratory

Bldg 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail appleby@mail1 monmouth army mil
NJDEP Certification #13481

Chain of Custody Record

Customer: D. OCSAI
Phone #: X2145
( )DERA (X)OMA ( )Other:
Project No
Location BLDG 500
Sampler Name / Company: Mark Lauer - TVS - PWS 07

Lab Sample I D	Sample Location	Date	Time	Sample Type	# bottles	VOA + IS	XYLENE	BN + IS						Remarks / Preservation Method
5384. .01	500-1 5.5-8'	4-29-00	0925	AQ.	3	X	X	X						HCL, 4°C

Analysis Parameters

Comments:

Relinquished by (signature)	Date/Time	Received by (signature)	Relinquished by (signature)	Date/Time	Received by (signature)
	5-1-00 730				
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
Turnaround time (X)Standard 3 wks, ( )Rush ___ Days, ( )ASAP Verbal ___ Hrs

Remarks

print legibly

Coc.xls11/23/99

METHODOLOGY SUMMARY

Methodology Summary

EPA Method 624
Gas Chromatographic Determination of Volatiles in Water

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

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

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

CONFORMANCE NON-CONFORMANCE SUMMARY

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		Indicate Yes, No, N/A
1	Chromatograms 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_____	
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_____	
	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_____	

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

Indicate
Yes, No, N/A

10 Internal Standard Area/Retention Time Shift Meet Criteria — Yes
(If not met, list those compounds, which fall outside the acceptable range)

a VOA Fraction _____
b B/N Fraction _____
c Acid Fraction N/A

11 Extraction Holding Time Met — Yes

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

12 Analysis Holding Time Met — Yes

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

Additional Comments
_____
_____
_____

Laboratory Manager _____ Date 5-15-20

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 5384 **Site:** Bldg 500

	Date	Hold Time
Date Sampled	04/29/00	NA
Receipt/Refrigeration	05/01/00	NA
Extractions		
1 Base Neutral	05/03/00	14 days
Analyses		
1 Volatile Organics	05/03/00	14 days
2 Base Neutral	05/04/00	40 days

Samples collected and refrigerated on 04/29/00 Laboratory received the samples on Monday 01/05/00

VOLATILES

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

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

Data File	VB006720 D	Sample Name	Vblk205
Operator	Skelton	Field ID	Vblk205
Date Acquired	3 May 2000 12 23 pm	Sample Multiplier	1

CAS#	Compound Name	R.T	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifiers
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-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

000012

5/7/00 3 27 PM

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID: Vblk205

Lab Name FMETL Project UST

NJDEP# 13461 Case No 5384 Location 500 SDG No

Matrix (soil/water) WATER Lab Sample ID Vblk205

Sample wt/vol 5 0 (g/ml) ML Lab File ID VB006720 D

Level (low/med) LOW Date Received 5/1/00

% Moisture not dec Date Analyzed 5/3/00

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/L

Number TICs found 0

CAS NO	COMPOUND NAME	RT	EST CONC	Q

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

Data File	VB006736 D	Sample Name	5384.01
Operator	Skelton	Field ID	500-1
Date Acquired	3 May 2000 11 08 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifiers
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	16 47	155234	3 93 ug/L	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

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID: 500-1

Lab Name FMETL Project UST

NJDEP# 13461 Case No 5384 Location 500 SDG No

Matrix (soil/water) WATER Lab Sample ID 5384 01

Sample wt/vol 5 0 (g/ml) ML Lab File ID VB006736 D

Level (low/med) LOW Date Received 5/1/00

% Moisture not dec Date Analyzed 5/3/00

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/L

Number TICs found 0

CAS NO	COMPOUND NAME	RT	EST CONC	Q

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name FMETL Project UST

NJDEP# 13461 Case No 5384 Location 500 SDG No

Lab File ID VB006620 D BFB Injection Date 4/6/00

Instrument ID GCMS#2 BFB Injection Time 15 18

GC Column RTX502 2 ID 0 25 (mm) Heated Purge (Y/N) N

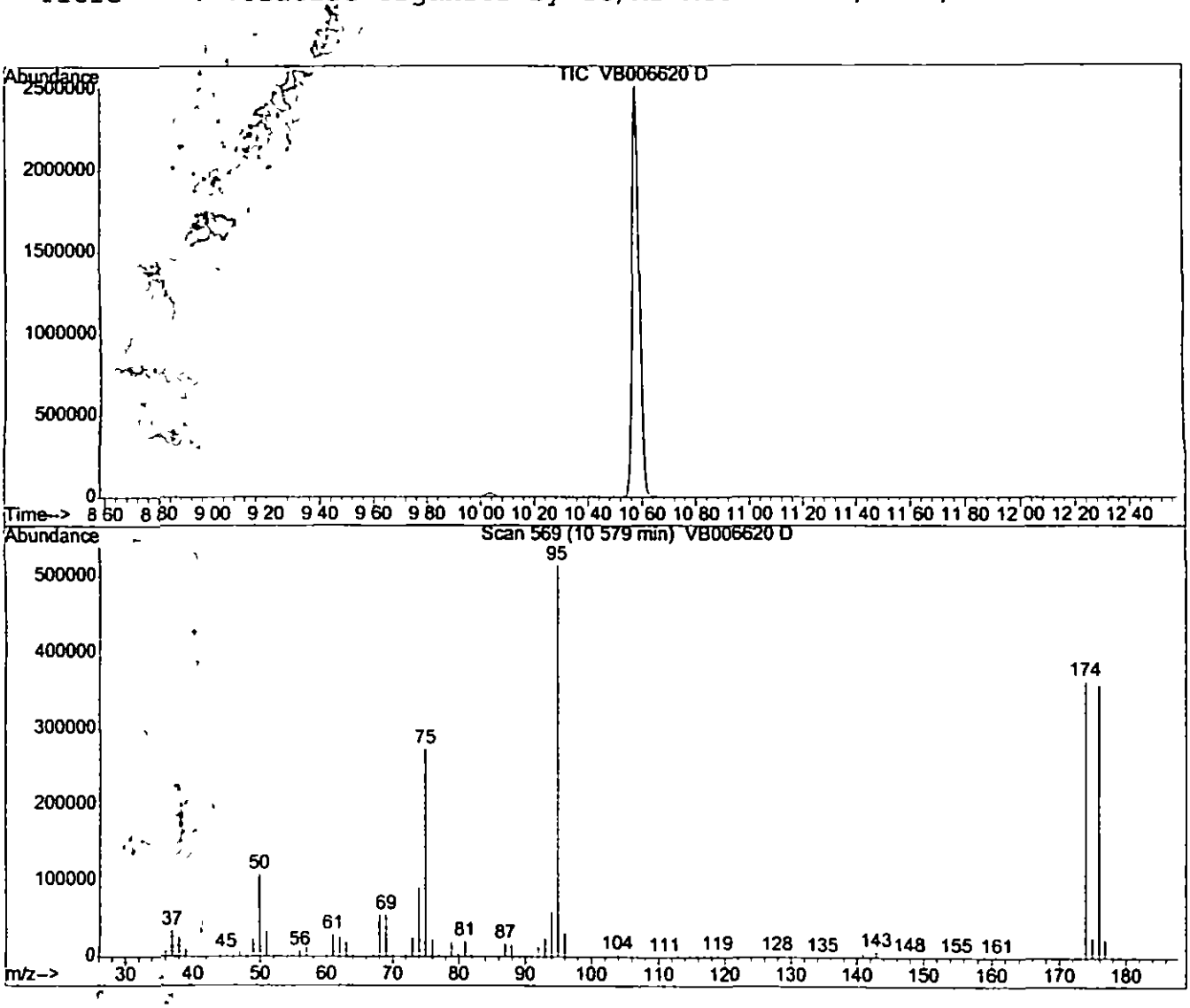
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8 0 - 40 0% of mass 95	20 9
75	30 0 - 66 0% of mass 95	53 0
95	Base peak, 100% relative abundance	100 0
96	5 0 - 9 0% of mass 95	6 4
173	Less than 2 0% of mass 174	0 0 (0 0)1
174	50 0 - 120 0% of mass 95	70 6
175	4 0 - 9 0% of mass 174	5 3 (7 5)1
176	93 0 - 101 0% of mass 174	69 6 (98 6)1
177	5 0 - 9 0% of mass 176	4 7 (6 8)2

1-Value is % mass 174 2-Value is % mass 176

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

	Lab ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	VB006621 D	4/6/00	15 47
02	VSTD050	VSTD050	VB006622 D	4/6/00	16 26
03	VSTD020	VSTD020	VB006623 D	4/6/00	17 06
04	VSTD010	VSTD010	VB006624 D	4/6/00	17 45
05	VSTD005	VSTD005	VB006625 D	4/6/00	18 25

Data File : C:\HPCHEM\1\DATA\APRIL2000\000406\VB006620.D Vial: 1
Acq On : 6 Apr 2000 3:18 pm Operator: Skelton
Sample : BFB Tune Inst : GC VOA 2
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\M262453.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 569

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.9	107680	PASS
75	95	30	60	53.0	272768	PASS
95	95	100	100	100 0	514176	PASS
96	95	5	9	6.4	33136	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70 6	362944	PASS
175	174	5	9	7 5	27240	PASS
176	174	95	101	98.6	357952	PASS
177	176	5	9	6.8	24360	PASS

BASE NEUTRAL

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	BNA03866 D	Sample Name	Sblk366
Operator	Bhaskar	Misc Info	Sblk366 A 000503
Date Acquired	4-May-00	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	BNA03866 D	Sample Name	Sblk366
Operator	Bhaskar	Misc Info	Sblk366 A 000503
Date Acquired	4-May-00	Sample Mulupher	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: **Sblk366**

Lab Name FMETL Lab Code 13461

Project 100004 Case No 5384 Location BI 500 SDG No

Matrix (soil/water) WATER Lab Sample ID Sblk366

Sample wt/vol 1000 (g/ml) ML Lab File ID BNA03866 D

Level (low/med) LOW Date Received 5/1/00

% Moisture decanted (Y/N) N Date Extracted 5/3/00

Concentrated Extract Volume 1000 (uL) Date Analyzed 5/4/00

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH 7

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	BNA03868 D	Sample Name	5384 01
Operator	Bhaskar	Misc Info	500-1
Date Acquired	4-May-00	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	BNA03868 D	Sample Name	5384 01
Operator	Bhaskar	Misc Info	500-1
Date Acquired	4-May-00	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: 500-1

Lab Name: FMETL Lab Code: 13461

Project: 100004 Case No: 5384 Location: BI 500 SDG No:

Matrix (soil/water): WATER Lab Sample ID: 5384 01

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA03868 D

Level (low/med): LOW Date Received: 5/1/00

% Moisture: decanted (Y/N): N Date Extracted: 5/3/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 5/4/00

Injection Volume: 1 0 (uL) Dilution Factor: 1 0

GPC Cleanup (Y/N): N pH: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

000039

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	NA
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 5/18/20

Laboratory Certification #13461

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

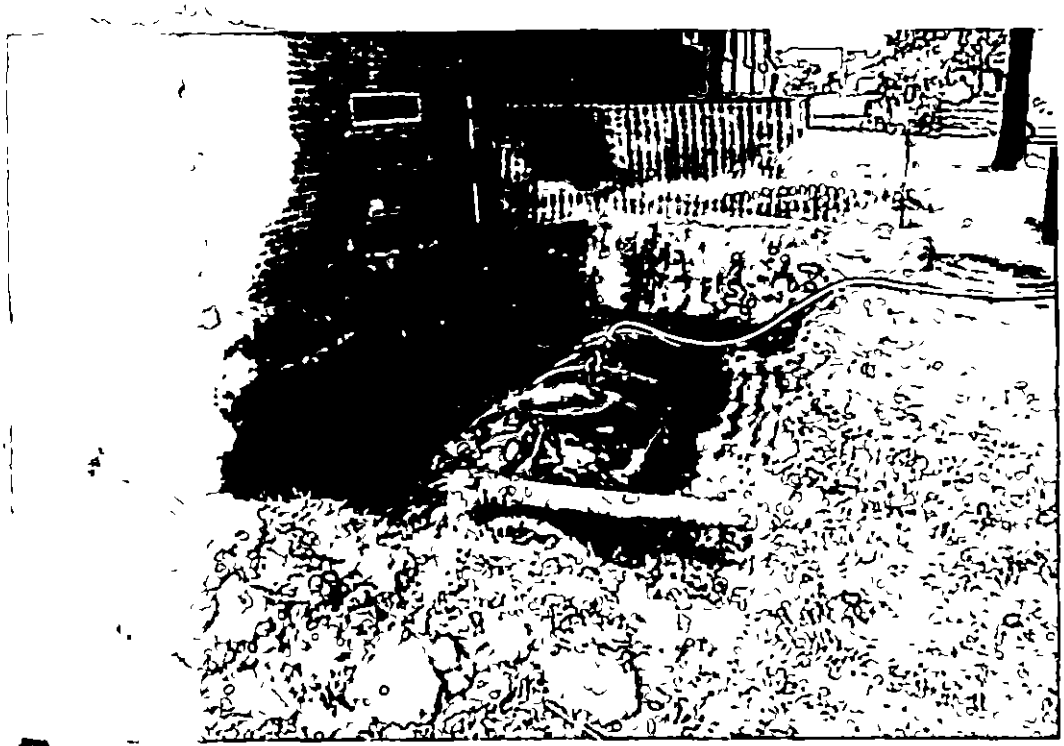
Laboratory Authentication Statement

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 G

PHOTOGRAPHS



JULY 8, 1997

PHOTOGRAPHIC LOG

UST NO. 81533-75

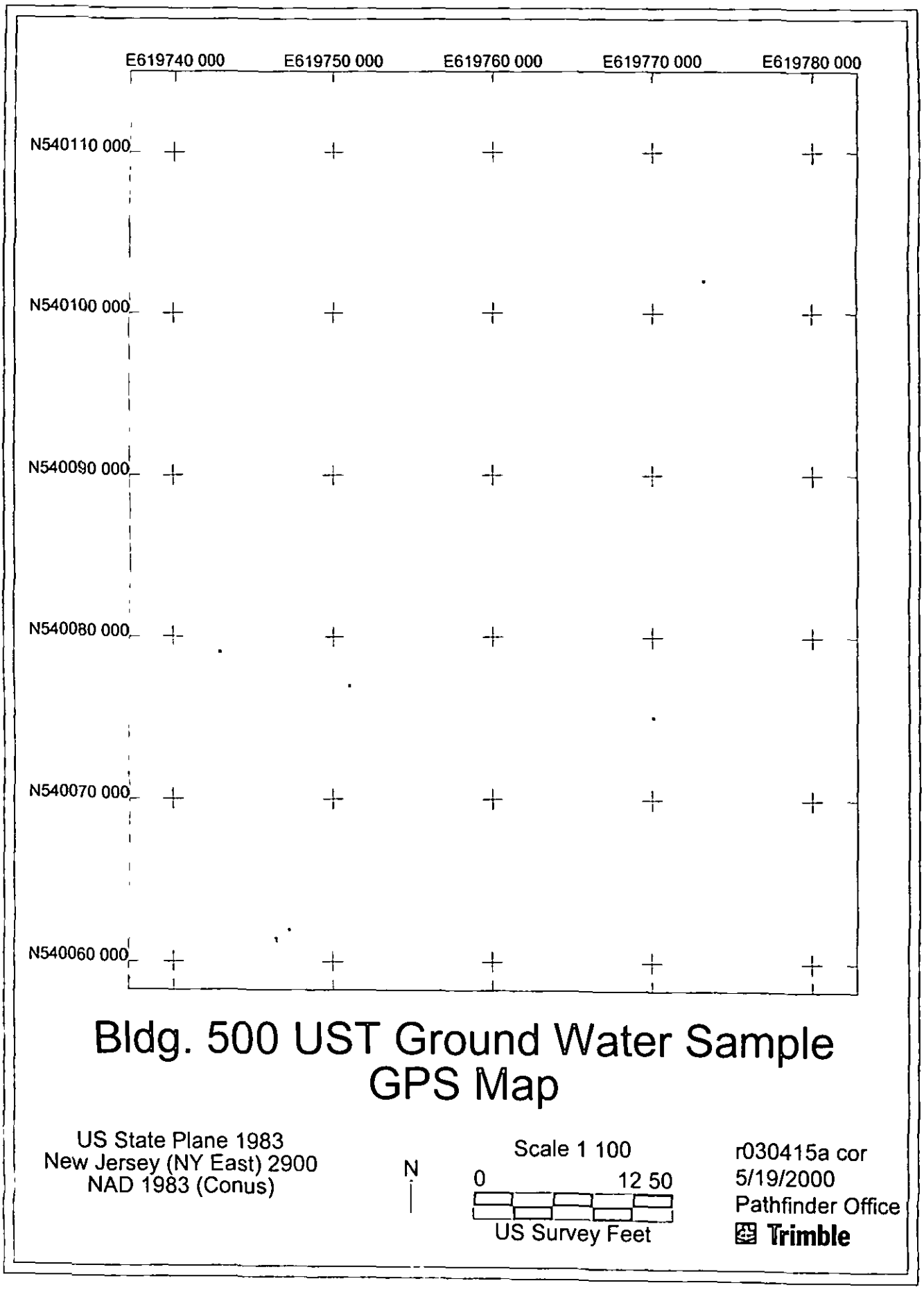
Building 500
Main Post-West
Fort Monmouth

VERSAR
Engineers, Managers, Scientists & Planners
Bristol, PA

Appendix H

APPENDIX H

ELECTRONIC DATA DELIVERABLES



Bldg. 500 UST Ground Water Sample GPS Map

US State Plane 1983
New Jersey (NY East) 2900
NAD 1983 (Conus)

N

Scale 1 100
0 12 50
US Survey Feet

r030415a cor
5/19/2000
Pathfinder Office
Trimble

BLDG 500 UST GROUND WATER SAMPLE GPS POSITION & COORDINATES

US STATE PLANE 1983 NJ (NY EAST) 2900 NAD 1983 (CONUS)

(IN US SURVEY FEET)

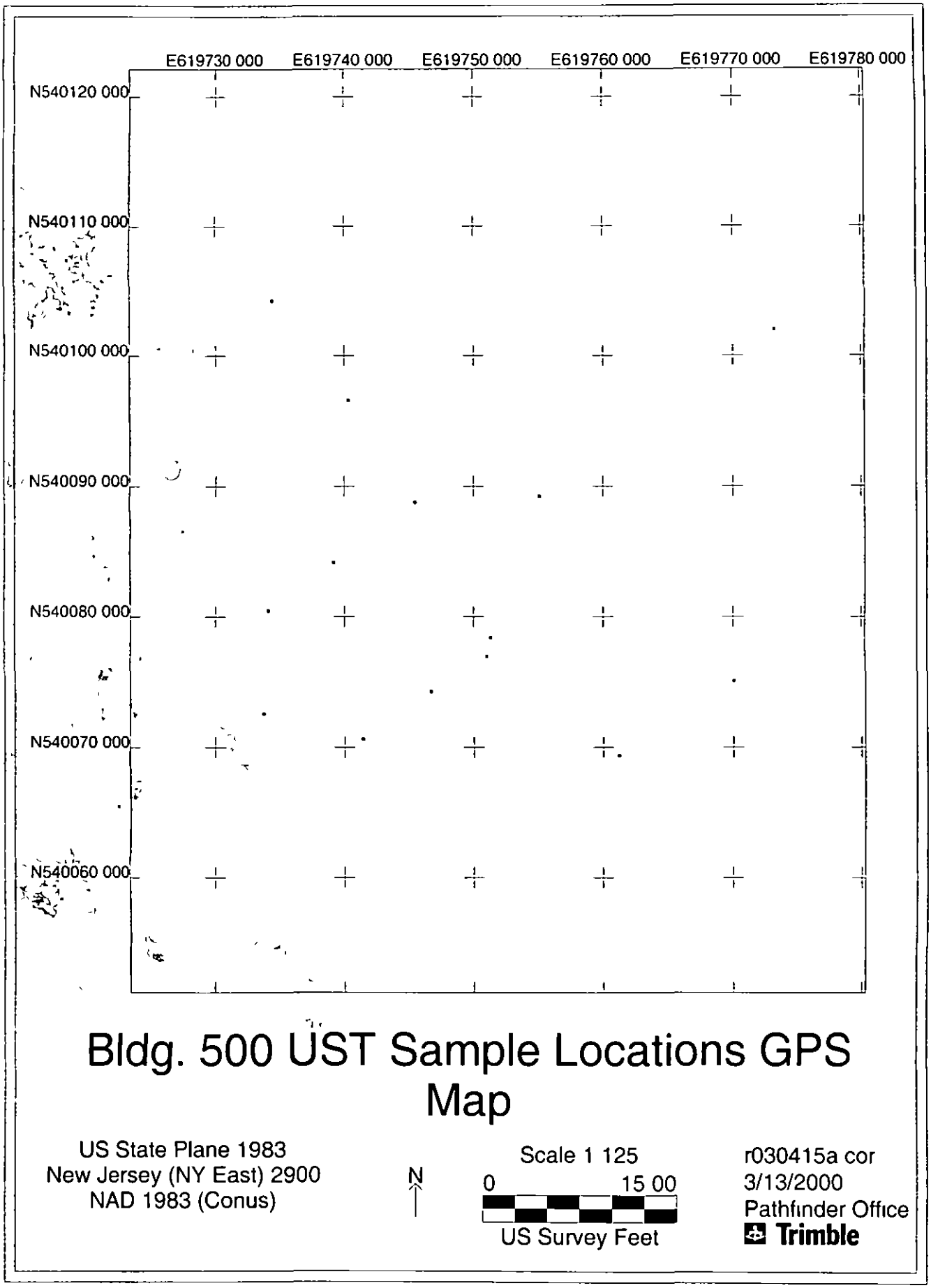
SAMPLE POINTS

POSTION / DESC	Y COORD (NORTHING)	X COORD. (EASTING)
500 GW	540079 082	619742 891

(GW denotes Ground Water)

REFERENCE POINTS

POSTION / DESC	Y COORD (NORTHING)	X COORD (EASTING)
BLDG CRNR	540077 012	619750 985
BLDG CRNR	540075 12	619769 995
STORM MANHOLE	540102 035	619773 161



Bldg. 500 UST Sample Locations GPS Map

US State Plane 1983
New Jersey (NY East) 2900
NAD 1983 (Conus)

N

Scale 1 125
0 15 00
US Survey Feet

r030415a cor
3/13/2000
Pathfinder Office
Trimble

BLDG 500 UST LOCATIONS GPS POSITION & COORDINATES

US STATE PLANE 1983 NJ (NY EAST) 2900 NAD 1983 (CONUS)

(IN US SURVEY FEET)

SAMPLE POINTS

POSITION / DESC	Y COORD (NORTHING)	X COORD (EASTING)
A	540078 428	619751 271
B	540089 279	619755 064
C	540069 397	619761 162
D	540074 293	619746 62
E	540070 664	619741 368
F	540072 634	619733 697
G	540080 505	619734 076
H	540084 185	619739 129
I	540096 605	619740 277
J	540104 287	619734 374
K	540088 815	619745 426

REFERENCE POINTS

POSITION / DESC	Y COORD (NORTHING)	X COORD (EASTING)
BLDG CRNR	540077 012	619750 985
BLDG CRNR	540075 12	619769 995
STORM MANHOLE	540102 035	619773 161