U.S. Army Garrison
Fort Monmouth, New Jersey

Underground Storage Tank Closure Report

Main Post – (former) Building 692
Sherrill Ave.

NJDEP UST Registration No. 81533-110

February 2008

UNDERGROUND STORAGE TANK REPORT

MAIN POST – (FORMER) BUILDING 692
NJDEP UST REGISTRATION NO. 81533-110

FEBRUARY 2008

PREPARED FOR:

U.S. ARMY GARRISON, FORT MONMOUTH, NJ
DIRECTORATE OF PUBLIC WORKS
BUILDING 167
FORT MONMOUTH, NJ 07703

PROJECT NO. 06-34950

PREPARED BY:

TECOM-VINNELL SERVICES, INC.
P.O. BOX 60
FT. MONMOUTH, NJ 07703

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EXECUTIVE SUMMARY

UST Closure

A single wall steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) guidelines on June 1, 1990. The UST was located on the southwest side of (former) Building 692 in the Main Post area of Fort Monmouth. UST No. 81533-110 was a 1,000-gallon tank containing No. 2 heating oil.

Site Assessment

This site assessment was performed by TVS personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual.*

During the time of UST removal, no closure soil samples were collected. Soil sampling was not required at the time. However, in order to confirm that the tank did not leak, this subsurface investigation was conducted. On January 27, 2006, a Geoprobe was utilized to collect soil samples 692-N, 692-C, 692-S and 692-C (groundwater) from a total of three (3) locations along the tank centerline bottom. All soil samples were analyzed for total petroleum hydrocarbons (TPH). Groundwater was encountered at approximately eight (8.0) feet below surface grade in the borings. A sample of it was collected and analyzed for volatile organic analysis (VOA) and semi-volatile organic analysis (SVOA).

Findings

The closure soil samples collected from the location associated with UST No. 81533-110, contained TPH concentrations below the NJDEP health based criterion of 10,000 milligrams per kilogram (mg/kg) for total organic contaminants (N.J.A.C. 7:26E and revisions dated February 3, 1994). All soil samples contained TPH concentrations of Not Detected.

Conclusions and Recommendations

Based on the closure soil sampling results, soils with TPH concentrations exceeding the NJDEP health based criterion of 10,000 mg/kg for total organic contaminants are not present in the location of the UST. A groundwater sample, analyzed for volatile organic analysis and semi-volatile organic analysis, did contain several compounds above the analytical method detection limits. Tetrachloroethene, generally not associated with No. 2 heating oil, was detected in the groundwater sample above the NJDEP Class II Ground Water Quality Criteria. Elevated background levels of this compound exist in several monitoring wells close to where the UST groundwater sample was collected. These elevated levels may be attributed to the near by landfill (M 8).

No Further Action is proposed in regard to the closure and site assessment of UST No. 81533-110 at Building 692.

1.0 UNDERGROUND STORAGE TANK CLOSURE SOIL SAMPLING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 81533-110, was closed at (former) Building 692 of the Main Post at the U.S. Army Garrison, Fort Monmouth, New Jersey. Refer to site location map on Figure 1. This report presents the results of soil and groundwater sampling analysis to confirm that the tank did not leak. The UST was a 1,000-gallon, single-wall steel tank containing No. 2 heating oil for residential use. The UST was installed in 1967 and the removal was done on June 1, 1990. An archived letter detailing the removal procedures, a copy of Site Assessment Compliance Statement and the NJDEP UST Site Investigation Report Form are included in Appendix A.

This UST Closure Report has been prepared by TVS to assist the U.S. Army Garrison DPW in complying with the NJDEP - Underground Storage Tanks regulations. The applicable NJDEP regulations at the date of closure were the *Closure of Underground Storage Tank Systems* (N.J.A.C. 7:14B-9 et seq. December, 1987 and revisions dated April 20, 2003).

This report was prepared using information required by the *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) (*Technical Requirements*). Section 1 of this UST Closure Report provides a summary of the UST site. Section 2 of this report describes the site investigation activities. Conclusions and recommendations, including the results of the soil sampling investigation, are presented in Section 3 of this report.

1.2 SITE DESCRIPTION

(Former) Building 692, Sherrill Ave., was located in the central portion (600 Area) of the Main Post of Fort Monmouth, as shown on Figure 1. UST No. 81533-110 was located on the southwest side of Building 692.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the 600 Area. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

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

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

Local Geology

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

Due to the fluvial nature of the overburden deposits (e.g., 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.

(Former) Building 692 was located approximately 250 feet south of Parker's Creek, the nearest water body, which flows into the Shrewsbury River. Based on the Main Post topography, the groundwater flow in the area of (former) Building 692 is anticipated to be to the north.

1.3 HEALTH AND SAFETY

Work site health and safety hazards were minimized during all site investigation activities. All areas which posed a vapor hazard were monitored by a qualified individual utilizing a calibrated photo-ionizer detector : Thermo Instruments Organic Vapor Monitor (OVM) – Model #580-B. The individual ascertained if the area was properly vented to render the area safe, as defined by OSHA. All work areas were properly vented to insure that there were no contaminants present in the breathing zone above permissible exposure limits (PEL's).

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 Fort Monmouth Environmental Testing Laboratory, a NJDEP-certified testing laboratory. All sampling was performed by a NJDEP Certified Subsurface Evaluator according to the methods described in the NJDEP Field Sampling Procedures Manual (1992). Sampling frequency and parameters analyzed complied with the NJDEP document *Technical Requirements for Site Remediation, 7:26E-3.9* (December 17, 2002 and revisions dated February 3, 2003) which was the applicable regulation at the date of the investigation. All records of the Site Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Site Assessment Activities.

- Ft. Monmouth Directorate of Public Works-Environmental Division
  Contact Person: Joseph Fallon
  Phone Number: (732) 532-6923

- Subsurface Evaluator: Frank Accorsi
  Employer: TECOM-Vinnell Services, Inc. (TVS)
  Phone Number: (732) 532-5241
  NJDEP License No.: 0010042
  TVS - NJDEP License No.: US252302

- Analytical Laboratory: Fort Monmouth Environmental Testing Laboratory
  Contact Person: Dan Wright
  Phone Number: (732) 532-4359
  NJDEP Laboratory Certification No.: 13461

2.2 FIELD SCREENING/MONITORING

Field screening of the soils was performed by a NJDEP certified Subsurface Evaluator using an OVM and visual observations to identify potentially contaminated material of which none were found.

2.3 SOIL SAMPLING

On January 26, 2006, closure soil samples 692-N, 692-C and 692-S were collected from a total of three (3) locations along the tank centerline bottom of the UST. Groundwater was encountered at approximately eight (8.0) feet below surface grade in the borings. All soil samples were analyzed for TPH. A soil sample location map is provided on Figure 2.

The site assessment was performed by TVS personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* and the NJDEP *Field Sampling Procedures Manual.* A summary of sampling activities including parameters analyzed is provided on Table 1. The soil samples were collected into laboratory prepared glassware using properly decontaminated stainless steel trowels. After collection, the samples were immediately placed on ice in a cooler and delivered to Fort Monmouth Environmental Testing Laboratory for analysis.

2.4 GROUNDWATER SAMPLING

On January 26, 2006, sample 692-C groundwater was collected from soil borehole 692-C to assess the groundwater quality in the location of the tank. A temporary piezometer was installed in the borehole for sample collection. The sample was collected into laboratory prepared glassware using a disposable teflon bailer. The sample was analyzed for volatile organic analysis (VOA) and semi-volatile organic analysis (SVOA).

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

Closure soil samples were collected from a total of three locations on January 26, 2006 to evaluate soil conditions in the location of the UST. All samples were analyzed for TPH. The closure soil sample results were compared to the NJDEP health based criterion of 10,000 mg/kg for total organic contaminants (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 on Table 2. The analytical data package, including associated quality control data, is provided in Appendix B.

Closure soil samples collected on January 26, 2006 from UST 81533-110 contained no concentrations of TPH above the method detection limits.

3.2 GROUNDWATER SAMPLING RESULTS

One groundwater sample was collected via temporary piezometer installed in soil borehole 692-C. There were several compounds detected above the method detection limits for the volatile organic analysis. The following compounds were detected above the method detection limits; tetrachloroethene at 3.58 ug/L, 1,3-dichlorobenzene at 0.45 ug/L, 1,4-dichlorobenzene at 0.53 ug/L and 1,2-dichlorobenzene at 0.72 ug/L. Tetrachloroethene was above the NJDEP Class II Ground Water Quality Criteria of 1.0 ug/L. There were no compounds detected above the method detection limits for the semi-volatile organic analysis.

3.3 CONCLUSIONS AND RECOMMENDATIONS

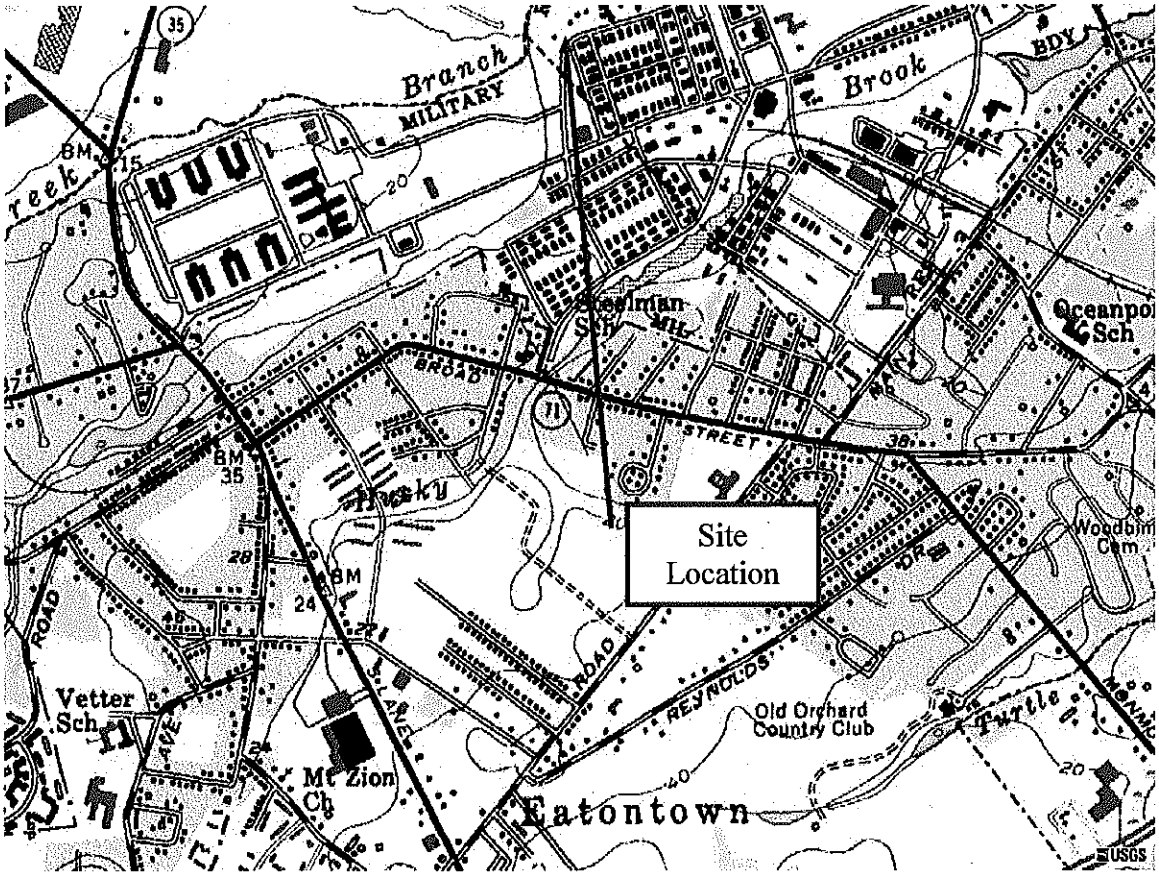
The analytical results for all soil samples collected from the UST closure assessment at UST No. 81533-110 were below the regulatory limits.

Based on the closure soil sampling results, soils with TPH concentrations exceeding the NJDEP health based criterion for total organic contaminants of 10,000 mg/kg are not present at the location of UST No. 81533-110.

Tetrachloroethene, along with the several other volatile organic compounds detected in the groundwater are generally not associated with No. 2 heating oil that was stored in the UST. The elevated levels of Tetrachloroethene may be attributed to the fact that groundwater sample was taken close to the edge of landfill M-8. Several existing monitoring wells in this vicinity exhibit elevated levels of this compound.

No Further Action is proposed in regard to the closure and site assessment of UST No. 81533-110 at (former) Building 692.

FIGURES



SCALE 1:24,000

1 0.5 0 1 MILE

1 0.5 0 1 KILOMETER

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

N

SOURCE: USGS 7½-MINUTE SERIES (TOPOGRAPHIC)
LONG BRANCH QUADRANGLE, NEW JERSEY, 1981.

FIGURE 1

SITE LOCATION MAP
BUILDING 692
UST NO. 81533-110
FT. MONMOUTH, NJ

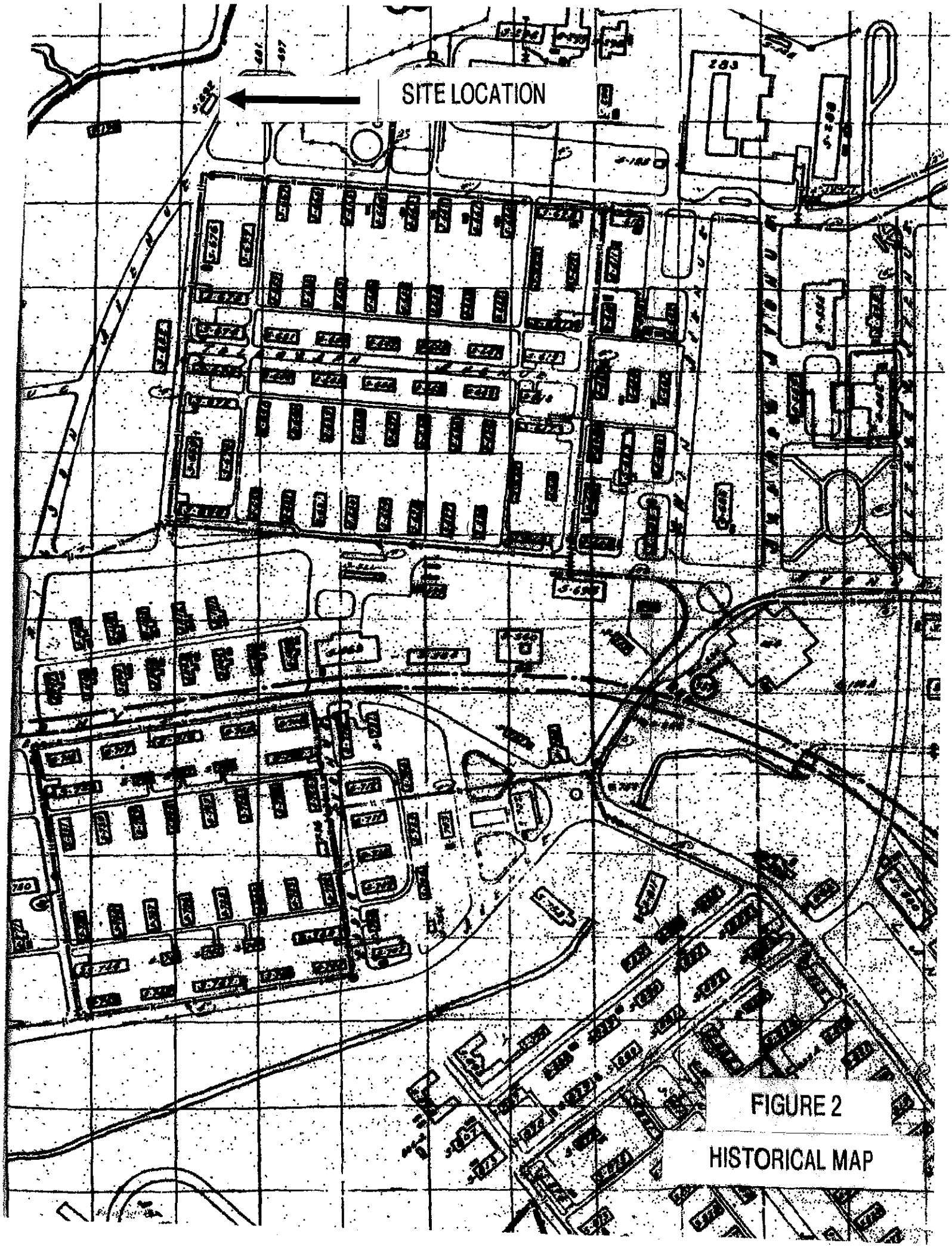


FIGURE 2

HISTORICAL MAP

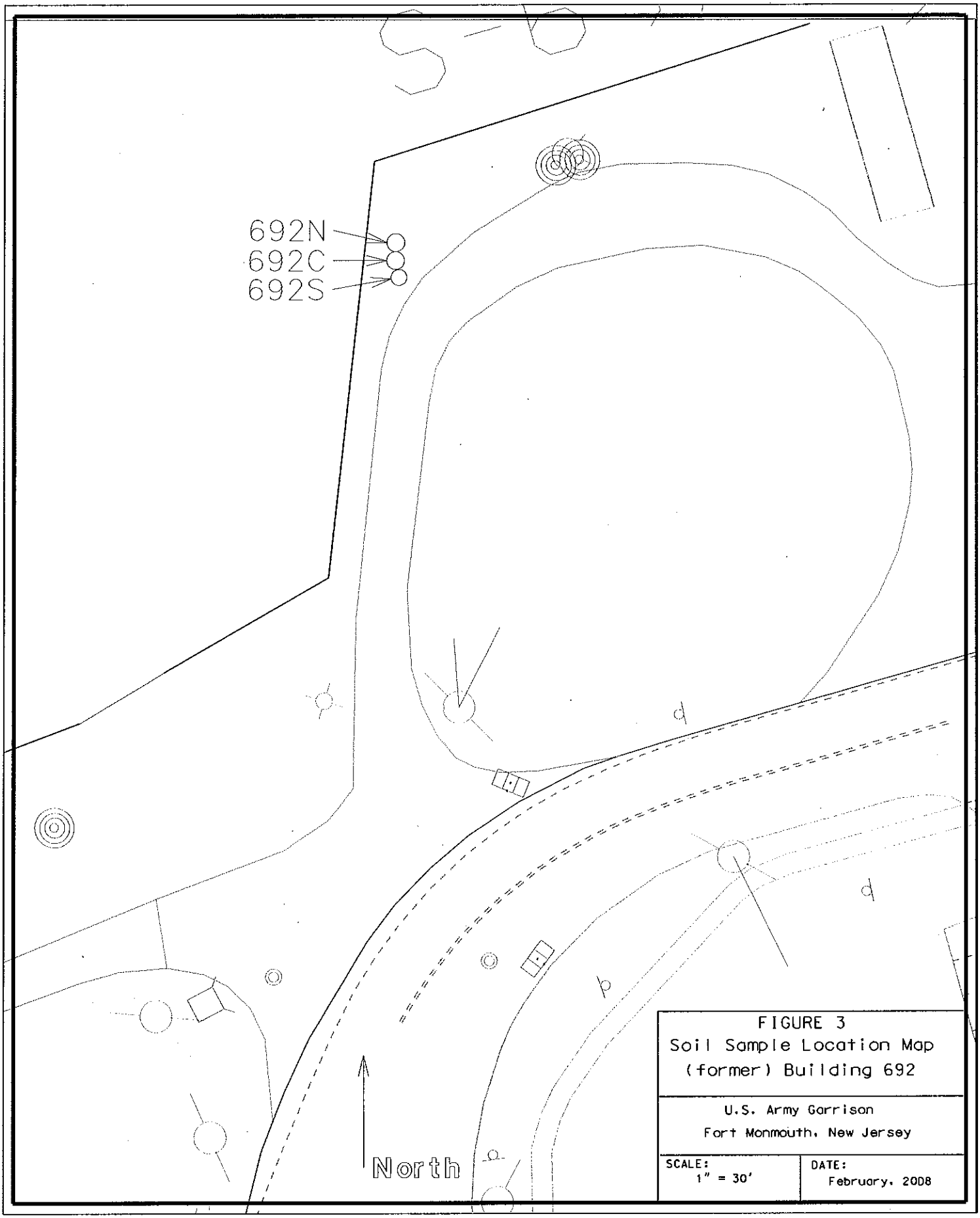


FIGURE 3
Soil Sample Location Map
(former) Building 692

U.S. Army Garrison
Fort Monmouth, New Jersey

SCALE: 1" = 30'

DATE: February, 2008

...\Projects\bim_MainPost.dgn 1/31/2008 2:42:40 PM

TABLES

TABLE 1

SUMMARY OF LABORATORY ANALYSIS

FT. MONMOUTH, (former) BUILDING 692, UST No. 81533-110
26 January 2006

SAMPLE ID	LABORATORY SAMPLE ID	SAMPLE DATE	SAMPLE MATRIX	ANALYTICAL PARAMETER	ANALYTICAL METHOD
692-N	6005601	26-Jan-06	SOIL	TPH	OQA-QAM-25
692-C	6005602	26-Jan-06	SOIL	TPH	OQA-QAM-25
692-S	6005604	26-Jan-06	SOIL	TPH	OQA-QAM-25
692-Duplic.	6005603	26-Jan-06	SOIL	TPH	OQA-QAM-25
692-C-Groundwater	6005605	26-Jan-06	AQUEOUS	VOA, SVOA	SW-846, EPA 625
Trip Blank	6005606	26-Jan-06	AQUEOUS	VOA	SW-846
Trip Blank	6005607	26-Jan-06	METHANOL	VOA	SW-846

ABBREVIATIONS:
TPH = Total Petroleum Hydrocarbons, Method NJDEP OQA-QAM-25
VOA = Volatile Organic Analysis, EPA SW-846 Method 8260
SVOA = Semi-Volatile Organic Analysis in Water, EPA Method 625

TABLE 2

SUMMARY OF LABORATORY ANALYTICAL RESULTS-SOIL

FT. MONMOUTH, (former) BUILDING 692, UST No. 81533-110
26 January 2006

TOTAL PETROLEUM HYDROCARBONS

SAMPLE ID	LABORATORY SAMPLE ID	SAMPLE LOCATION	SAMPLE DEPTH	MATRIX	TPH RESULTS
			(in feet)		mg/kg
692-N	6005601	NORTH END UST	7.5 – 8.0	Soil	ND
692-C	6005602	CENTER UST	7.5 – 8.0	Soil	ND
692-S	6005604	SOUTH END UST	7.5 – 8.0	Soil	ND
692-Duplic.	6005603	SOUTH END UST	7.5 – 8.0	Soil	ND

ABBREVIATIONS:
mg/kg = milligrams per kilogram = parts per million
ND = Compound Not Detected
NA = Compound Not Analyzed
*= Further Analyzed for Volatile Organic Compounds

Notes:
Gray shading indicates exceedance of NJDEP
health based criterion of 10,000 ppm total organic contaminants

TABLE 3

SUMMARY OF LABORATORY ANALYTICAL RESULTS-GROUNDWATER

FT. MONMOUTH, (former) BUILDING 692, UST No. 81533-110

26 January 2006

VOLATILE ORGANIC COMPOUNDS

SAMPLE ID	LAB SAMPLE ID	Tetrachloroethene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
UNITS		ug/L	ug/L	ug/L	ug/L
692-C Groundwater	6005605	3.58	0.45	0.53	0.72
NJDEP Criteria	Ground Water Quality Crireria	1.0	600	75	600

ABBREVIATIONS:
ug/L = Micrograms Per Liter = parts per billion
ND = Compound Not Detected
NA = Compound Not Analyzed
NLE = No Limit Established

Notes:
Gray shading indicates exceedance of NJDEP Class II Ground Water Quality Criteria

APPENDIX A

CERTIFICATIONS

STATE OF NEW JERSEY
DEPARTM[illegible] OF ENVIRONMENTAL PROTECT[illegible]
Bureau of Underground Storage Tanks
CN-029, Trenton, NJ 08625

For State Use Only
Date Rec'd
Auth
Routing
UST NO.

SITE ASSESSMENT COMPLIANCE STATEMENT

Supplement to the New Jersey Standard Reporting Form
(Complete for ALL regulated UST abandonments or removals)

Within ninety (90) days of completing the UST closure of any State or Federally-regulated tank, the owner or operator must submit this completed form to the NJDEP Bureau of Underground Storage Tanks. If the facility is located in one of the counties listed on the back, a copy of this form must also be sent to the Health Agency indicated.

The owner or operator of any Federally-regulated tank must also comply with the following:

40 CFR Part 280.72 Assessing the site at closure or change-in-service

"(a) Before permanent closure or a change-in-service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the method of closure, the nature of the stored substance, the type of backfill, the depth to ground water, and other factors appropriate for identifying the presence of a release."

FACILITY U.S. Army Fort Monmouth UST # 0081533 Tank No. 58, 88, 95, 104, 110, 113, 146, 148, 158, 163.

Check off the following items as appropriate for the site.

✓ The UST facility is only regulated by State law, therefore a site assessment is not mandatory.

____ The UST facility is regulated by Federal law and a site assessment was conducted.

The results of the site assessment indicate:

✓ There was NO release from the UST system.

____ There was a release from the UST system and it was reported to the DEP Environmental Hotline (609-292-7172).

NOTE: The results of the site assessment are not to be submitted to the DEP or Health Agency unless requested to do so. The results are to be available for inspection at the UST facility.

Questions can be directed to the Bureau at (609) 984-3156.

*** This registration form shall be signed by the highest ranking individual at the facility with overall responsibility for that facility (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.

SACS-2,1/89

[signature] Date 22 NOV 1991
(SIGNATURE)

JAMES OTT
Acting Director
(PRINT OR TYPE NAME)
Div, Engineering and Housing
(Title)

Site Remediation Program
UST Site Remedial Investigation Report

A. Facility Name: Building 692

Facility Street Address: 692 Sherrill Ave.

Municipality: Oceanport County: Monmouth

Block: NA Lot(s): NA Telephone Number: 732-532-6223

B. Owner (RP)'s Name: U.S. Army Garrison-Dept. of Public Works

Street Address: 167 Riverside Ave. City: Ft. Monmouth

State: NJ Zip: 07703 Telephone Number: 732-532-6223

C. (Check as appropriate)

☐ Site Investigation Report (SIR) $500 Fee

☐ Remedial Investigation Report (RIR) $1000 Fee

D. (Complete all that apply)

Assigned Case Manager: _____

UST Registration Number: 81533-110 (7 digits)

- Incident Report Number: _____ (10 or 12 digits)
- Tank Closure Number **C(N)9**____-____ C 9-____ **C9**____-_____(7 characters)

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: Frank Accorsi Signature: _____ UST Cert. No.: 0010042

Firm: Tecom-Vinnell Services, Inc. Firm's UST Cert. Number: US252302

Firm Address: P.O. Box 60 City: Ft. Monmouth

State: NJ Zip: 07724 Telephone Number: 732-532-5241

(NOTE: Certification numbers required only if work was conducted on **USTs** regulated per N.J.S.A. 5 8: **10A-2 1** 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): _____ Title: _____

Signature: _____

Company Name: _____ Date: _____

APPENDIX B

SOIL AND GROUNDWATER ANALYTICAL DATA PACKAGE

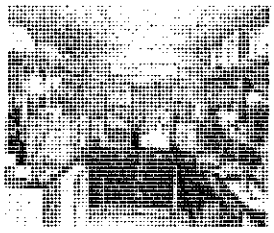
FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732) 532-4359 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: BLDG. 692

Bldg. 692

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
692N 7.5-8.0'	6005601	Soil	26-Jan-06 11:21	01/26/06
692C 7.5-8.0'	6005602	Soil	26-Jan-06 11:51	01/26/06
Duplicate	6005603	Soil	26-Jan-06 12:17	01/26/06
692S 7.5-8.0'	6005604	Soil	26-Jan-06 12:17	01/26/06
692C GW	6005605	Aqueous	26-Jan-06 12:28	01/26/06
Trip Blank	6005606	Aqueous	26-Jan-06	01/26/06
Trip Blank	6005607	Methanol	26-Jan-06	01/26/06

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

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

3-8-06
Daniel Wright/Date
Laboratory Director

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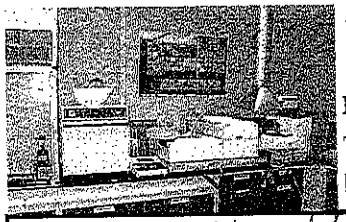
CHAIN OF CUSTODY



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: John McCarthy
Phone: x 26224
( )DERA ( )OMA ( )Other:_____

Project No: 06-34880
Location: 692 (Former UST)

Samplers Name / Company: /TVS

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	TPH	VO+10	BN+15						Comments: Remarks / Preservation Method
60052601	692N 7.5-8.0	1/26/06	1121	Soil	2	X								4459
02	692C 7.5-8.0		1151	Soil	2	X								4460
03	DUPE		1217	Soil	2	X								4461
04	692S 7.5-8.0		1217	Soil	2	X								4462
05	692C GW		1228	AQ	3		X	X						
06	TRIP		—	AQ	2		X							
07	TRIP		—	Meth	1									4458

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
George Boyer	1-26-06 1500				
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: VO+10 on 25% > 1000 PPM TPH

SAMPLE RECEIPT FORM

Date Received: 1-26-06 Work Order ID#: C600526

Site/Proj. Name: Bldg 692/UST Cooler Temp (°C): 4.0°C

Received By: J. Bergman Sign: J. Bergman
(Print name)

Check the appropriate box

1. Did the samples come in a cooler? ☑ yes ☐ no ☐ n/a
2. Were samples rec'd in good condition? ☑ yes ☐ no
3. Was the chain of custody filled out correctly and legibly? ☑ yes ☐ no
4. Was the chain of custody signed in the appropriate place? ☑ yes ☐ no
5. Did the labels agree with the chain of custody? ☑ yes ☐ no
6. Were the correct containers/preservatives used? ☑ yes ☐ no
7. Was a sufficient amount of sample supplied? ☑ yes ☐ no
8. Were air bubbles present in VOA vials? ☐ yes ☑ no ☐ n/a
9. Were samples received on ice? ☑ yes ☐ no
10. Were analyze-immediately tests perform within 15 minutes ☐ yes ☐ no ☑ n/a

Fill out the following table for each sample bottle

Lims ID	pH	Preservative	Sample ID	pH	Preservative
C600526-12		HCl			

Comments: _____

000003

Change of Chain of Custody

Lab Project ID#: 600057
Date Received: 12.6.06
Requested by: *(print)* Thomas
Turnaround Time: Std

Site/Project Name: Bldg 614 UST
Date of Change: 2/3/06
Sign: Thomas

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

Received by: *(print)* _____ Sign: _____

Sample ID#	New Analysis	Sample ID#	New Analysis
600570Z	VOA+15		
+			
600560Z	TB VOA+15		

Comments: _____

Former UST 692 Sample Location GPS Positions

US State Plane 1983 New Jersey (NY East) 2900
NAD 1983 (Conus)
Geoid 96 (Conus)

(In US Survey Feet)

Position	Northing (Y Coord.)	Easting (X Coord.)
692N	539970.021	617777.818
692C	539965.575	617777.761
692S	539961.407	617778.575

METHOD 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 SW-846 Method 8260
Gas Chromatographic Determination of Volatiles in Methanol

A 10-gram volume of soil is combined with 25-ml of Methanol and surrogates in the field. Internal standards are added and the sample is placed on a purge and trap concentrator. The sample as purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture and concentration.

EPA Method 625
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 is concentrated and internal standards are added. The sample is injected into a GC/MS system. Semi-volatiles are identified and quantitated.

NJDEP Method OQA-QAM-025 10/97
Gas Chromatographic Determination of Total Petroleum Hydrocarbons in Soil

Fifteen grams (15g) of soil is added to a 125-ml acid cleaned and solvent rinsed capped Erlenmeyer flask. 15g anhydrous Sodium Sulfate is added to dry the sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five ml of Methylene Chloride is added to the flask and it is secured on an orbital shaker table. The agitation rate is set to 400 rpm and the sample is shaken for 30 minutes. The flask is removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25-ml 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 1-ml auto-sampler 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 moisture, sample weight and concentration.

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 60056

Site: UST
Bldg. 692

	Date	Hold Time
Date Sampled	01/26/06	NA
Receipt/Refrigeration	01/26/06	NA
Extractions		
1. BN	01/27/06	7 days
2. TPHC	02/01/06	14 days
Analyses		
1. VOA	02/07,08/06	14 days
2. BN	01/30/06	40 days
3. TPHC	02/02/06	40 days

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: — yes
   a. VOA Fraction Acetone 3.55 ug/L
   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) — NO
   a. VOA Fraction various out see form
   b. B/N Fraction Benzidine rec. low
   c. Acid Fraction NA

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 NA

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: 3-8-06

TPHC CONFORMANCE/NON–CONFORMANCE SUMMARY REPORT

		Indicate Yes, No, N/A
1.	Method Detection Limits Provided	Yes
2.	Method Blank Contamination – If yes, list the sample and the corresponding concentrations in each blank	Yes
3.	Matrix Spike Results Summary Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	Yes
4.	Duplicate Results Summary Meet Criteria	Yes
5.	IR Spectra submitted for standards, blanks and samples	NA
6.	Chromatograms submitted for standards, blanks and samples if GC fingerprinting was conducted	Yes
7.	Analysis holding time met (If not met, list number of days exceeded for each sample)	Yes

Additional comments: _____

Laboratory Manager: _____ Date: 3-8-06

VOLATILE ORGANICS (AQUEOUS)

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

U: The compound was analyzed for but not detected.

B: Indicates that the compound was found in the associated method blank as well as in the sample.

J: Indicates an estimated value. This flag is used:
(1) When the mass spec and retention time data indicate the presence of a componnd however the result is less than the MDL but greater than zero.
(2) When estimating the concentration of a tentatively identified componnd (TIC), where a 1:1 response is assumed.

D: This flag is used to identify all compounds (target or TIC) that required a dilution.

E: Indicates the compound's concentration exceeds the calibration range of the instrument for that specific analysis.

N: This flag is only used for TICs. It indicates the presumptive evidence of a compound. For a generic characterization of a TIC, such as unknown hydrocarbon, the flag is not used.

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

Data File	VB021635.D	Sample Name	MB 07Feb2006
Operator	Skelton	Field ID	MB 07Feb2006
Date Acquired	7 Feb 2006 8:34 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.01 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	5	1.23 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	5.70 ug/L	10.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.21 ug/L	2.00 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.26 ug/L	2.00 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.20 ug/L	2.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.24 ug/L	2.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.23 ug/L	2.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.26 ug/L	2.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.29 ug/L	2.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.23 ug/L	2.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.19 ug/L	2.00 ug/L	
67-64-1	Acetone	11.94	45398	3.55 ug/L	6000	0.36 ug/L	2.00 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.24 ug/L	2.00 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.21 ug/L	2.00 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.24 ug/L	2.00 ug/L	
75-34-3	1,1-Dichloroethane			not detected	50	0.24 ug/L	2.00 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	2.00 ug/L	
78-93-3	2-Butanone			not detected	300	0.26 ug/L	2.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.20 ug/L	2.00 ug/L	
67-66-3	Chloroform			not detected	70	0.22 ug/L	2.00 ug/L	
71-55-6	1,1,1-Trichloroethane			not detected	30	0.20 ug/L	2.00 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.24 ug/L	2.00 ug/L	
71-43-2	Benzene			not detected	1	0.24 ug/L	2.00 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.23 ug/L	2.00 ug/L	
79-01-6	Trichloroethene			not detected	1	0.26 ug/L	2.00 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.24 ug/L	2.00 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.22 ug/L	2.00 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.23 ug/L	2.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.22 ug/L	2.00 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.35 ug/L	2.00 ug/L	
108-88-3	Toluene			not detected	1000	0.26 ug/L	2.00 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.25 ug/L	2.00 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.28 ug/L	2.00 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.20 ug/L	2.00 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.43 ug/L	2.00 ug/L	
124-48-1	Dibromochloromethane			not detected	1	0.22 ug/L	2.00 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.28 ug/L	2.00 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.27 ug/L	2.00 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.43 ug/L	4.00 ug/L	
95-47-6	o-Xylene			not detected	nle	0.21 ug/L	2.00 ug/L	
100-42-5	Styrene			not detected	100	0.21 ug/L	2.00 ug/L	
75-25-2	Bromoform			not detected	4	0.27 ug/L	2.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.45 ug/L	2.00 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.36 ug/L	2.00 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.35 ug/L	2.00 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.45 ug/L	2.00 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Interim Criteria as per N.J.A.C. 7:9C 07Nov2005

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
R.L. = Reporting Limit

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **MB 07Feb2006**

Lab Name: FMETL NJDEP#: 13461

Project: 06-34880 Case No.: 60056 Location: 692 SDG No.: UST

Matrix: (soil/water) WATER Lab Sample ID: MB 07Feb2006

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB021635.D

Level: (low/med) LOW Date Received: 1/26/2006

% Moisture: not dec. Date Analyzed: 2/7/2006

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: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000079-20-9	Acetic acid, methyl ester	12.44	21	JN

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

Data File	VB021641.D	Sample Name	6005606
Operator	Skelton	Field ID	Trip Blank
Date Acquired	8 Feb 2006 12:37 am	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.01 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	5	1.23 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	5.70 ug/L	10.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.21 ug/L	2.00 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.26 ug/L	2.00 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.20 ug/L	2.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.24 ug/L	2.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.23 ug/L	2.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.26 ug/L	2.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.29 ug/L	2.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.23 ug/L	2.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.19 ug/L	2.00 ug/L	
67-64-1	Acetone			not detected	6000	0.36 ug/L	2.00 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.24 ug/L	2.00 ug/L	
75-09-2	Methylene Chloride	11.66	49080	2.09 ug/L	3	0.21 ug/L	2.00 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.24 ug/L	2.00 ug/L	
75-34-3	1,1-Dichloroethane			not detected	50	0.24 ug/L	2.00 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	2.00 ug/L	
78-93-3	2-Butanone			not detected	300	0.26 ug/L	2.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.20 ug/L	2.00 ug/L	
67-66-3	Chloroform			not detected	70	0.22 ug/L	2.00 ug/L	
71-55-6	1,1,1-Trichloroethane			not detected	30	0.20 ug/L	2.00 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.24 ug/L	2.00 ug/L	
71-43-2	Benzene			not detected	1	0.24 ug/L	2.00 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.23 ug/L	2.00 ug/L	
79-01-6	Trichloroethene			not detected	1	0.26 ug/L	2.00 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.24 ug/L	2.00 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.22 ug/L	2.00 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.23 ug/L	2.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.22 ug/L	2.00 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.35 ug/L	2.00 ug/L	
108-88-3	Toluene			not detected	1000	0.26 ug/L	2.00 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.25 ug/L	2.00 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.28 ug/L	2.00 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.20 ug/L	2.00 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.43 ug/L	2.00 ug/L	
124-48-1	Dibromochloromethane			not detected	1	0.22 ug/L	2.00 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.28 ug/L	2.00 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.27 ug/L	2.00 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.43 ug/L	4.00 ug/L	
95-47-6	o-Xylene			not detected	nle	0.21 ug/L	2.00 ug/L	
100-42-5	Styrene			not detected	100	0.21 ug/L	2.00 ug/L	
75-25-2	Bromoform			not detected	4	0.27 ug/L	2.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.45 ug/L	2.00 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.36 ug/L	2.00 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.35 ug/L	2.00 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.45 ug/L	2.00 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Interim Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Valne from dilution
PQL = Practical Quantitation Limit

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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **Trip Blank**

Lab Name: FMETL NJDEP#: 13461

Project: 06-34880 Case No.: 60056 Location: 692 SDG No.: UST

Matrix: (soil/water) WATER Lab Sample ID: 6005606

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB021641.D

Level: (low/med) LOW Date Received: 1/26/2006

% Moisture: not dec. _____ Date Analyzed: 2/8/2006

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: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000079-20-9	Acetic acid, methyl ester	12.46	12	JN

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

Data File	VB021640.D	Sample Name	6005605
Operator	Skelton	Field ID	692C GW
Date Acquired	7 Feb 2006 11:57 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.01 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	5	1.23 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	5.70 ug/L	10.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.21 ug/L	2.00 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.26 ug/L	2.00 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.20 ug/L	2.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.24 ug/L	2.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.23 ug/L	2.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.26 ug/L	2.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.29 ug/L	2.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.23 ug/L	2.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.19 ug/L	2.00 ug/L	
67-64-1	Acetone			not detected	6000	0.36 ug/L	2.00 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.24 ug/L	2.00 ug/L	
75-09-2	Methylene Chloride	11.67	43328	1.81 ug/L	3	0.21 ug/L	2.00 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.24 ug/L	2.00 ug/L	
75-34-3	1,1-Dichloroethane			not detected	50	0.24 ug/L	2.00 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	2.00 ug/L	
78-93-3	2-Butanone			not detected	300	0.26 ug/L	2.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.20 ug/L	2.00 ug/L	
67-66-3	Chloroform			not detected	70	0.22 ug/L	2.00 ug/L	
71-55-6	1,1,1-Trichloroethane			not detected	30	0.20 ug/L	2.00 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.24 ug/L	2.00 ug/L	
71-43-2	Benzene			not detected	1	0.24 ug/L	2.00 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.23 ug/L	2.00 ug/L	
79-01-6	Trichloroethene			not detected	1	0.26 ug/L	2.00 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.24 ug/L	2.00 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.22 ug/L	2.00 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.23 ug/L	2.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.22 ug/L	2.00 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.35 ug/L	2.00 ug/L	
108-88-3	Toluene			not detected	1000	0.26 ug/L	2.00 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.25 ug/L	2.00 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.28 ug/L	2.00 ug/L	
127-18-4	Tetrachloroethene	23.47	127465	3.58 ug/L	1	0.20 ug/L	2.00 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.43 ug/L	2.00 ug/L	
124-48-1	Dibromochloromethane			not detected	1	0.22 ug/L	2.00 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.28 ug/L	2.00 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.27 ug/L	2.00 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.43 ug/L	4.00 ug/L	
95-47-6	o-Xylene			not detected	nle	0.21 ug/L	2.00 ug/L	
100-42-5	Styrene			not detected	100	0.21 ug/L	2.00 ug/L	
75-25-2	Bromoform			not detected	4	0.27 ug/L	2.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.45 ug/L	2.00 ug/L	
541-73-1	1,3-Dichlorobenzene	30.03	26148	0.45 ug/L	600	0.36 ug/L	2.00 ug/L	
106-46-7	1,4-Dichlorobenzene	30.20	32640	0.53 ug/L	75	0.35 ug/L	2.00 ug/L	
95-50-1	1,2-Dichlorobenzene	31.03	0	0.72 ug/L	600	0.45 ug/L	2.00 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Interim Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilutioo
PQL = Practical Quantitation Limit

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

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000021

2/28/2006 2:45 PM

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **692C GW**

Lab Name: FMETL NJDEP#: 13461

Project: 06-34880 Case No.: 60056 Location: 692 SDG No.: UST

Matrix: (soil/water) WATER Lab Sample ID: 6005605

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB021640.D

Level: (low/med) LOW Date Received: 1/26/2006

% Moisture: not dec. Date Analyzed: 2/7/2006

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: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000079-20-9	Acetic acid, methyl ester	12.45	21	JN

VOLATILE ORGANICS (SOIL)

1A

FIELD ID:

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 07Feb2006

Lab Name: FMETL NJDEP#: 13461

Project: 06-34880 Case No.: 60057 Location: 614 SDG No.: UST

Matrix: (soil/water) SOIL Lab Sample ID: MB 07Feb2006

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB021635.D

Level: (low/med) MED Date Received: 1/26/2006

% Moisture: not dec. 0 Date Analyzed: 2/7/2006

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	1000	U
107131	Acrylonitrile	1000	U
75650	tert-Butyl alcohol	1000	U
1634044	Methyl-tert-Butyl ether	100	U
108203	Di-isopropyl ether	100	U
75718	Dichlorodifluoromethane	100	U
74-87-3	Chloromethane	100	U
75-01-4	Vinyl Chloride	100	U
74-83-9	Bromomethane	100	U
75-00-3	Chloroethane	100	U
75-69-4	Trichlorofluoromethane	100	U
75-35-4	1,1-Dichloroethene	100	U
67-64-1	Acetone	360	
75-15-0	Carbon Disulfide	100	U
75-09-2	Methylene Chloride	100	U
156-60-5	trans-1,2-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	100	U
78-93-3	2-Butanone	100	U
156-59-2	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
71-43-2	Benzene	100	U
107-06-2	1,2-Dichloroethane	100	U
79-01-6	Trichloroethene	100	U
78-87-5	1,2-Dichloropropane	100	U
75-27-4	Bromodichloromethane	100	U
110-75-8	2-Chloroethyl vinyl ether	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
108-88-3	Toluene	100	U
10061-02-6	trans-1,3-Dichloropropene	100	U
79-00-5	1,1,2-Trichloroethane	100	U
127-18-4	Tetrachloroethene	100	U
591-78-6	2-Hexanone	100	U
124-48-1	Dibromochloromethane	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U

1A

FIELD ID:

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 07Feb2006

Lab Name: FMETL NJDEP#: 13461

Project: 06-34880 Case No.: 60057 Location: 614 SDG No.: UST

Matrix: (soil/water) SOIL Lab Sample ID: MB 07Feb2006

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB021635.D

Level: (low/med) MED Date Received: 1/26/2006

% Moisture: not dec. 0 Date Analyzed: 2/7/2006

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	200	U
95-47-6	o-Xylene	100	U
100-42-5	Styrene	100	U
75-25-2	Bromoform	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
541-73-1	1,3-Dichlorobenzene	100	U
106-46-7	1,4-Dichlorobenzene	100	U
95-50-1	1,2-Dichlorobenzene	100	U
91-20-3	Naphthalene	100	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **MB 07Feb2006**

Lab Name: FMETL NJDEP#: 13461

Project: 06-34880 Case No.: 60057 Location: 614 SDG No.: UST

Matrix: (soil/water) SOIL Lab Sample ID: MB 07Feb2006

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB021635.D

Level: (low/med) MED Date Received: 1/26/2006

% Moisture: not dec. 0 Date Analyzed: 2/7/2006

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000079-20-9	Acetic acid, methyl ester	12.44	2100	JN

1A

FIELD ID:

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP#: 13461

Project: 06-34880 Case No.: 60057 Location: 614 SDG No.: UST

Matrix: (soil/water) SOIL Lab Sample ID: 6005607

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB021636.D

Level: (low/med) MED Date Received: 1/26/2006

% Moisture: not dec. 0 Date Analyzed: 2/7/2006

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	1000	U
107131	Acrylonitrile	1000	U
75650	tert-Butyl alcohol	1000	U
1634044	Methyl-tert-Butyl ether	100	U
108203	Di-isopropyl ether	100	U
75718	Dichlorodifluoromethane	100	U
74-87-3	Chloromethane	100	U
75-01-4	Vinyl Chloride	100	U
74-83-9	Bromomethane	100	U
75-00-3	Chloroethane	100	U
75-69-4	Trichlorofluoromethane	100	U
75-35-4	1,1-Dichloroethene	100	U
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-09-2	Methylene Chloride	100	U
156-60-5	trans-1,2-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	100	U
78-93-3	2-Butanone	100	U
156-59-2	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
71-43-2	Benzene	100	U
107-06-2	1,2-Dichloroethane	100	U
79-01-6	Trichloroethene	100	U
78-87-5	1,2-Dichloropropane	100	U
75-27-4	Bromodichloromethane	100	U
110-75-8	2-Chloroethyl vinyl ether	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
108-88-3	Toluene	100	U
10061-02-6	trans-1,3-Dichloropropene	100	U
79-00-5	1,1,2-Trichloroethane	100	U
127-18-4	Tetrachloroethene	100	U
591-78-6	2-Hexanone	100	U
124-48-1	Dibromochloromethane	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U

1A

FIELD ID:

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP#: 13461

Project: 06-34880 Case No.: 60057 Location: 614 SDG No.: UST

Matrix: (soil/water) SOIL Lab Sample ID: 6005607

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB021636.D

Level: (low/med) MED Date Received: 1/26/2006

% Moisture: not dec. 0 Date Analyzed: 2/7/2006

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	200	U
95-47-6	o-Xylene	100	U
100-42-5	Styrene	100	U
75-25-2	Bromoform	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
541-73-1	1,3-Dichlorobenzene	100	U
106-46-7	1,4-Dichlorobenzene	100	U
95-50-1	1,2-Dichlorobenzene	100	U
91-20-3	Naphthalene	100	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **Trip Blank**

Lab Name: FMETL NJDEP#: 13461

Project: 06-34880 Case No.: 60057 Location: 614 SDG No.: UST

Matrix: (soil/water) SOIL Lab Sample ID: 6005607

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB021636.D

Level: (low/med) MED Date Received: 1/26/2006

% Moisture: not dec. 0 Date Analyzed: 2/7/2006

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

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

Number TICs found: 4

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	5.11	870	J
2. 000079-20-9	Acetic acid, methyl ester	12.43	12000	JN
3. 001112-39-6	Silane, dimethoxydimethyl-	17.38	1900	JN
4. 000554-12-1	Propanoic acid, methyl ester	17.83	370	JN

SEMI-VOLATILE ORGANICS

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA11471.D**	Sample Name	**MB-012706-01**
Operator	**BPatel**	Misc Info	**MB-012706-01**
Date Acquired	**30-Jan-06**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	RL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.13	10.00	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	0.8	0.60	10.00	ug/L	
62-53-3	Aniline			not detected	6	2.38	10.00	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	7	0.71	10.00	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.02	10.00	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.99	10.00	ug/L	
100-51-6	Benzyl alcohol			not detected	2000	0.66	10.00	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.96	10.00	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.88	10.00	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	10	0.76	10.00	ug/L	
67-72-1	Hexachloroethane			not detected	7	0.96	10.00	ug/L	
98-95-3	Nitrobenzene			not detected	6	0.86	10.00	ug/L	
78-59-1	Isophorone			not detected	40	0.76	10.00	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.79	10.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.89	10.00	ug/L	
91-20-3	Naphthalene			not detected	300	0.76	10.00	ug/L	
106-47-8	4-Chloroaniline			not detected	30	1.37	10.00	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.99	10.00	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.01	10.00	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	40	0.92	10.00	ug/L	
91-58-7	2-Chloronaphthalene			not detected	600	0.72	10.00	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.77	10.00	ug/L	
131-11-3	Dimethylphthalate			not detected	NLE	0.78	10.00	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.67	10.00	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	10	0.71	10.00	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.18	10.00	ug/L	
83-32-9	Acenaphthene			not detected	400	0.73	10.00	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.69	10.00	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.81	10.00	ug/L	
84-66-2	Diethylphthalate			not detected	6000	0.96	10.00	ug/L	
86-73-7	Fluorene			not detected	300	0.71	10.00	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.73	10.00	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.11	10.00	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	10	0.62	10.00	ug/L	
103-33-3	Azobenzene			not detected	NLE	0.72	10.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.92	10.00	ug/L	
118-74-1	Hexachlorobenzene			not detected	0.02	0.95	10.00	ug/L	
85-01-8	Phenanthrene			not detected	NLE	0.81	10.00	ug/L	
120-12-7	Anthracene			not detected	2000	0.76	10.00	ug/L	
84-74-2	Di-n-butylphthalate			not detected	700	0.92	10.00	ug/L	
206-44-0	Fluoranthene			not detected	300	0.82	10.00	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA11471.D**	Sample Name	**MB-012706-01**
Operator	**BPatel**	Misc Info	**MB-012706-01**
Date Acquired	**30-Jan-06**	Sample Multiplier	1

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	RL		Qualifiers
92-87-5	Benzidine			not detected	20	0.98	10.00	ug/L	
129-00-0	Pyrene			not detected	200	0.79	10.00	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	0.86	10.00	ug/L	
56-55-3	Benzo[a]anthracene			not detected	0.1	0.82	10.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	30	1.31	10.00	ug/L	
218-01-9	Chrysene			not detected	5	0.77	10.00	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	3	1.28	10.00	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.02	10.00	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	0.2	0.98	10.00	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	0.5	0.92	10.00	ug/L	
50-32-8	Benzo[a]pyrene			not detected	0.1	0.71	10.00	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	0.2	0.76	10.00	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	0.3	0.76	10.00	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.80	10.00	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
MDL= Method Detection Limit
NLE= No Limit Established
R.T.=Retention Time
RL= Reporting Limit. The values between the MDL and RL are considered estimated.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MB-012706-01

Lab Name: FMETL Lab Code 13461

Project: 06-34880 Case No.: 60056 Location: 692 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: MB-012706-01

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA11471.D

Level: (low/med) LOW Date Received: 1/26/2006

% Moisture: _____ decanted: (Y/N) N Date Extracted: 1/27/2006

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/30/2006

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA11481.D**	Sample Name	**6005605**
Operator	**BPatel**	Misc Info	**692C-GW**
Date Acquired	**30-Jan-06**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	RL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.13	10.00	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	0.8	0.60	10.00	ug/L	
62-53-3	Aniline			not detected	6	2.38	10.00	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	7	0.71	10.00	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.02	10.00	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.99	10.00	ug/L	
100-51-6	Benzyl alcohol			not detected	2000	0.66	10.00	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.96	10.00	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.88	10.00	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	10	0.76	10.00	ug/L	
67-72-1	Hexachloroethane			not detected	7	0.96	10.00	ug/L	
98-95-3	Nitrobenzene			not detected	6	0.86	10.00	ug/L	
78-59-1	Isophorone			not detected	40	0.76	10.00	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.79	10.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.89	10.00	ug/L	
91-20-3	Naphthalene			not detected	300	0.76	10.00	ug/L	
106-47-8	4-Chloroaniline			not detected	30	1.37	10.00	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.99	10.00	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.01	10.00	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	40	0.92	10.00	ug/L	
91-58-7	2-Chloronaphthalene			not detected	600	0.72	10.00	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.77	10.00	ug/L	
131-11-3	Dimethylphthalate			not detected	NLE	0.78	10.00	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.67	10.00	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	10	0.71	10.00	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.18	10.00	ug/L	
83-32-9	Acenaphthene			not detected	400	0.73	10.00	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.69	10.00	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.81	10.00	ug/L	
84-66-2	Diethylphthalate			not detected	6000	0.96	10.00	ug/L	
86-73-7	Fluorene			not detected	300	0.71	10.00	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.73	10.00	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.11	10.00	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	10	0.62	10.00	ug/L	
103-33-3	Azobenzene			not detected	NLE	0.72	10.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.92	10.00	ug/L	
118-74-1	Hexachlorobenzene			not detected	0.02	0.95	10.00	ug/L	
85-01-8	Phenanthrene			not detected	NLE	0.81	10.00	ug/L	
120-12-7	Anthracene			not detected	2000	0.76	10.00	ug/L	
84-74-2	Di-n-butylphthalate			not detected	700	0.92	10.00	ug/L	
206-44-0	Fluoranthene			not detected	300	0.82	10.00	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA11481.D**	Sample Name	**6005605**
Operator	**BPatel**	Misc Info	**692C-GW**
Date Acquired	**30-Jan-06**	Sample Multiplier	1

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	RL		Qualifiers
92-87-5	Benzidine			not detected	20	0.98	10.00	ug/L	
129-00-0	Pyrene			not detected	200	0.79	10.00	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	0.86	10.00	ug/L	
56-55-3	Benzo[a]anthracene			not detected	0.1	0.82	10.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	30	1.31	10.00	ug/L	
218-01-9	Chrysene			not detected	5	0.77	10.00	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	3	1.28	10.00	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.02	10.00	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	0.2	0.98	10.00	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	0.5	0.92	10.00	ug/L	
50-32-8	Benzo[a]pyrene			not detected	0.1	0.71	10.00	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	0.2	0.76	10.00	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	0.3	0.76	10.00	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.80	10.00	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
RL= Reporting Limit. The values between the MDL and RL are considered estimated.
MDL= Method Detection Limit
NLE= No Limit Established
R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

692C-GW

Lab Name: FMETL Lab Code 13461

Project: 06-34880 Case No.: 60056 Location: 692 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 6005605

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA11481.D

Level: (low/med) LOW Date Received: 1/26/2006

% Moisture: _____ decanted: (Y/N) N Date Extracted: 1/27/2006

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/30/2006

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TPHC

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

Client :	U.S. Army	**Project # :**	60056
	DPW. SELFM-PW-EV	**Location :**	692
	Bldg. 173	**UST Reg. # :**	06-34880
	Ft. Monmouth, NJ 07703		
Analysis :	OQA-QAM-025	**Date Received :**	26-Jan-06
Matrix :	Soil	**Date Extracted :**	01-Feb-06
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	02-Feb-06
Injection Volume :	1uL	**Analyst :**	B.Patel

Lab ID	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	RL	TPHC Result (mg/kg)
6005601	692N	1.00	15.10	94.32	68	351	ND
6005602	692C	1.00	15.40	95.00	66	342	ND
6005603	Dupe	1.00	15.15	93.32	68	354	ND
6005604	692S	1.00	15.38	93.44	67	348	ND
METHOD BLANK	MB-020106-01	1.00	15.00	100.00	64	333	ND

ND = Not Detected

MDL = Method Detection Limit

RL = Reporting Limits

Note : The TPHC result between the MDL and RL are considered an estimated value

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 data 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: 3/8/06

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