



DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
OCEANPORT, NEW JERSEY 07757

20 December 2017

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Bureau of Northern Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, NJ 07927-1112

**Subject: Request for Unrestricted Use, No Further Action Approval
USTs 701A, 701B, and 702
Fort Monmouth, Monmouth County, Oceanport, New Jersey
PI G000000032**

Dear Mr. Joshi:

The Fort Monmouth Team has reviewed existing file information for the subject USTs located in Parcel 54. Based on this information as summarized below, we request an Unrestricted Use, No Further Action Approval for USTs 701A, 701B, and 702.

UST 701A

UST 701A (Registration ID No. 81533-113) was a steel 1,000-gallon No. 2 fuel oil tank located just north of Alexander Avenue associated with former Building 701 (**Figure 1**). The tank was removed on 18 June 1990. At the time of closure, soil sampling was not required. A subsurface investigation was conducted in January 2006 to confirm there was no discharge. Three samples (701W, 701C, and 701E) were collected and analyzed for Total Petroleum Hydrocarbons (TPH). A groundwater sample (701C-GW) was collected from the borehole for sample 701C and analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). As shown on Table 2 and 3 of **Attachment A**, there were no detections of TPH in soil, and the only exceedances of the GWQC in groundwater was bis(2-ethylhexyl)phthalate, which is a known laboratory contaminant. The results of the investigations at former UST 701A indicate there has not been a release of fuel oil.

UST/AST 701B

UST 701B (Registration ID No. 81533-115) was a steel 1,000-gallon No.2 fuel oil tank located just north of Alexander Avenue associated with former Building 701 (**Figure 1**). As shown in **Attachment B**, there was no UST present at this location, and the registered tank was actually an aboveground storage tank (AST). The Army's 2016 Finding of Suitability to Transfer document also indicated that UST-701-115 (a name derived from the building number, and the last portion of the Registration ID) was an AST. No evidence of any leak has been observed at this location and the AST is no longer present.

UST 702

UST 702 (Registration ID No. 81533-114) was a steel 1,000-gallon No.2 fuel oil tank located just west of Building 702. The tank was removed on 11 May 1994. Six post-excavation samples (A-F)

were collected after removal of the tank. Samples A, B, C, and D were collected along the sidewalls of the UST excavation at a depth of 5.5 feet below ground surface (bgs). Post-excavation soil sample E was collected immediately below the former location of the piping. A concrete pad was located at the base of the excavation at a depth of 6.0 feet bgs. Sample F was collected from the base of the excavation immediately adjacent to and below the concrete pad. All samples were analyzed for TPH. The maximum concentration was 44.3 milligrams per kilogram (mg/kg) at Site D, which was below the then-current NJDEP soil clean up standard (10,000 mg/kg) and below the current extractable petroleum hydrocarbons (EPH) standard (5,100 mg/kg). The results of the soil investigations at former UST 702 indicate there has not been a release of fuel oil.

Thank you for reviewing this request; we look forward to your approval and/or comments. Our technical Point of Contact is Kent Friesen at (732) 383-7201; kent.friesen@parsons.com. I can be reached at (732) 380-7064; william.r.colvin18.civ@mail.mil.

Sincerely,



William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator

Figure 1: UST Removal Reference Map Grid B3; Main Post

Attachment A: Underground Storage Tank Closure Report NJDEP UST Registration No. 81533-113

Attachment B: Fort Monmouth UST Status Summary Report for 701B

Attachment C: Underground Storage Tank Closure Report NJDEP UST Registration No. 81533-114

Reference:

Army, 2016. *Final Finding of Suitability to Transfer (FOST), Fort Monmouth, New Jersey, Phase 2 Parcels*. August.

cc: Ashish Joshi, NJDEP (e-mail and 2 hard copies)
William Colvin, BEC (e-mail and 1 hard copy)
Joseph Pearson, Calibre (e-mail)
James Moore, USACE (e-mail)
Jim Kelly, USACE (e-mail)
Cris Grill, Parsons (e-mail)



New Jersey Department of Environmental Protection
Site Remediation Program

Report Certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites

These certifications are to be used for reports submitted for RCRA GPRA 2020, CERCLA, and Federal Facility Sites. The Department has developed guidance for report certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites under traditional oversight. The "Person Responsible for Conducting the Remediation Information and Certification" is required to be submitted with each report. For those sites that are required or opt to use a Licensed Site Remediation Professional (LSRP) the report must also be certified by the LSRP using the "Licensed Site Remediation Professional Information and Statement". For additional guidance regarding the requirement for LSRPs at RCRA GPRA 2020, CERCLA and Federal Facility Sites see http://www.nj.gov/dep/srp/srra/training/matrix/quick_ref/rcra_cercla_fed_facility_sites.pdf.

Document:

- "Request for Unrestricted Use, No Further Action Approval, USTs 701A, 701B and 702, Fort Monmouth, Monmouth County, Oceanport, New Jersey" (20 December 2017)

PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: William R. Colvin

Representative First Name: William

Representative Last Name: Colvin

Title: Fort Monmouth BRAC Environmental Coordinator (BEC)

Phone Number: (732) 380-7064

Ext: _____

Fax: _____

Mailing Address: P.O. Box 148

City/Town: Oceanport

State: NJ

Zip Code: 07757

Email Address: william.r.colvin18.civ@mail.mil

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, 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.

Signature: _____

William R. Colvin

Date: _____

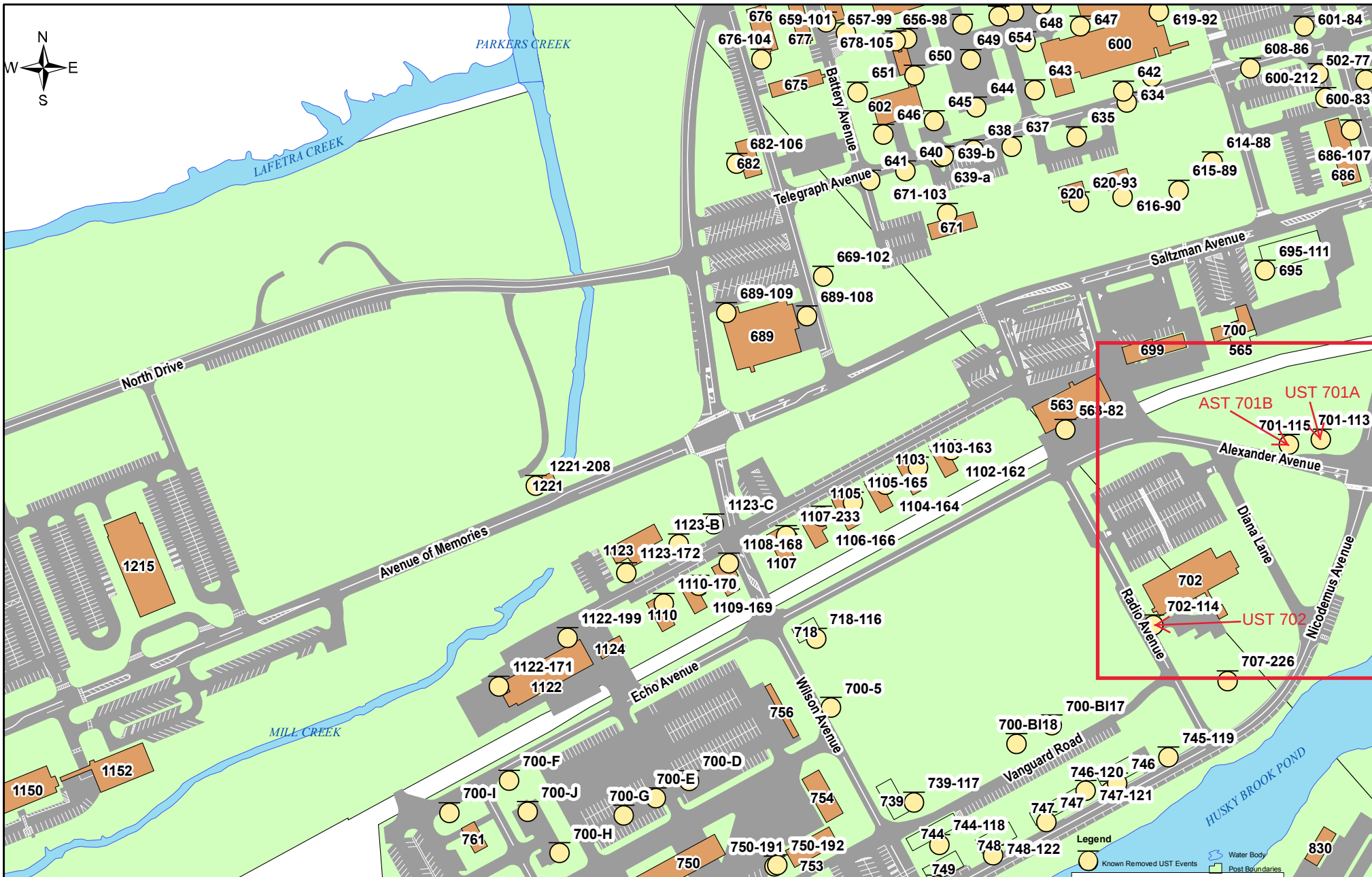
20 DEC 2017

Name/Title: William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator

Completed form should be sent to:

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Bureau of Northern Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, New Jersey 07927-1112

Figure 1: UST Removal Reference Map Grid B3; Main post



UST Removal Reference Map Grid B3; Main Post Fort Monmouth, New Jersey **FOUO**

Legend

- Known Removed UST Events
- Reference Map Links
- Demolished Building
- Existing Building
- Roadway & Parking
- Water Body
- Post Boundaries

Map Created by:
Fort Monmouth Installation GIO, Environmental Division
Fort Monmouth, New Jersey
Date: August 10, 2011
All drawings must be field verified.
New Jersey State Plane Feet, NAD83

August 10, 2011 11:05:05 AM C:\Users\JG\Documents\Fort Monmouth\Main Post\UST Reference.mxd

**Attachment A: Underground Storage Tank Closure Report NJDEP
UST Registration No. 81533-113**

U.S. Army Garrison
Fort Monmouth, New Jersey

**Underground Storage Tank
Closure Report**

***Main Post – (former) Building 701
Alexander Ave.***

NJDEP UST Registration No. 81533-113

February 2008

UNDERGROUND STORAGE TANK REPORT

**MAIN POST – (FORMER) BUILDING 701
NJDEP UST REGISTRATION NO. 81533-113**

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**

TABLE OF CONTENTS

EXECUTIVE SUMMARY	IV
1.0 UNDERGROUND STORAGE TANK SITE INVESTIGATION ACTIVITIES	1
1.1 Overview	1
1.2 Site Description	1
1.2.1 Geological/Hydrogeological Setting	1
1.3 Health and Safety	3
2.0 SITE INVESTIGATION ACTIVITIES	4
2.1 Overview	4
2.2 Field Screening/Monitoring	4
2.3 Soil Sampling	5
2.4 Groundwater Sampling	5
3.0 CONCLUSIONS AND RECOMMENDATIONS	6
3.1 Soil Sampling Results	6
3.2 Groundwater Sampling Results	6
3.3 Conclusions and Recommendations	6

TABLE OF CONTENTS (CONTINUED)

FIGURES

- Figure 1 Site Location Map**
- Figure 2 Historical Site Location Map**
- Figure 3 Sampling Location Map**

TABLES

- Table 1 Summary of Laboratory Analysis**
- Table 2 Summary of Laboratory Analytical Results-Soil-TPH**
- Table 3 Summary of Laboratory Analytical Results-Groundwater-SVOA**

APPENDICES

- Appendix A Certifications**
- Appendix B Soil and Groundwater Analytical Data Package**

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 18, 1990. The UST was located on the southwest side of (former) Building 701 in the Main Post area of Fort Monmouth. UST No. 81533-113 was a 1,000-gallon tank containing No. 2 heating oil.

Site Assessment

This site assessment was performed by TECOM-Vinnell Service (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 701W, 701C, 701E and 701C (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. 81533-113, 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 one compound above the analytical method detection limits. Detected was Bis(2-Ethylhexyl)phthalate was detected at 13.8 ug/L which is above the regulatory level of 3 ug/L. However, this compound is a common laboratory contaminant.

No Further Action is proposed in regard to the closure and site assessment of UST No. 81533-113 at (former) Building 701.

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. 81533-113, was closed at (former) Building 701 located on 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 1963 and the removal was done on June 18, 1990. An archived letter detailing the removal procedures, a copy of Site Assessment Compliance Statement, a historical photograph of (former) Building 701 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 701, Alexander Ave., was located in the central portion (600 Area) of the Main Post of Fort Monmouth, as shown on Figure 1. A historical map, Figure 2, was used to determine the location of (former) Building 701. UST No. 81533-113 was located on the southeast side of (former) Building 701.

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 (Zapeczka, 1989). These sediments, predominantly derived from deltaic, shallow marine, and continental shelf environments, date from Cretaceous through the Quaternary Periods. The mineralogy ranges from quartz to glauconite.

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. Over 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations, and the Cohansey Sand) while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown, and Navesink Formations). The individual 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 Zapeczka, 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 701 was located approximately 450 feet north of Husky Brook, the nearest water body, which flows into Oceanport Creek and then into the Shrewsbury River. Based on the Main Post topography, the groundwater flow in the area of (former) Building 701 is anticipated to be to the south.

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) 532-7013
- 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: Jacqueline Hamer
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 24, 2006, closure soil samples 701W, 701C and 701E 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 3.

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 24, 2006, groundwater sample 701C-GW was collected from soil borehole 701C 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 24, 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 24, 2006 from UST 81533-113 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 701C. There were no compounds detected above the method detection limits for the volatile organic analysis. There was one compound detected above the method detection limits for the semi-volatile organic analysis. Bis(2-Ethylhexyl)phthalate was detected at 13.8 ug/L which is above the regulatory level of 3 ug/L. However, this compound is a common laboratory contaminant.

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all soil samples collected from the UST closure assessment at UST No. 81533-113 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. 81533-113.

No Further Action is proposed in regard to the closure and site assessment of UST No. 81533-113 at (former) Building 701.

FIGURES

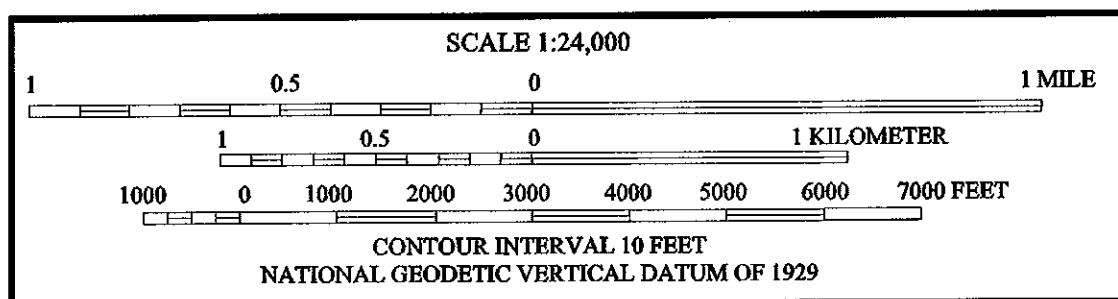
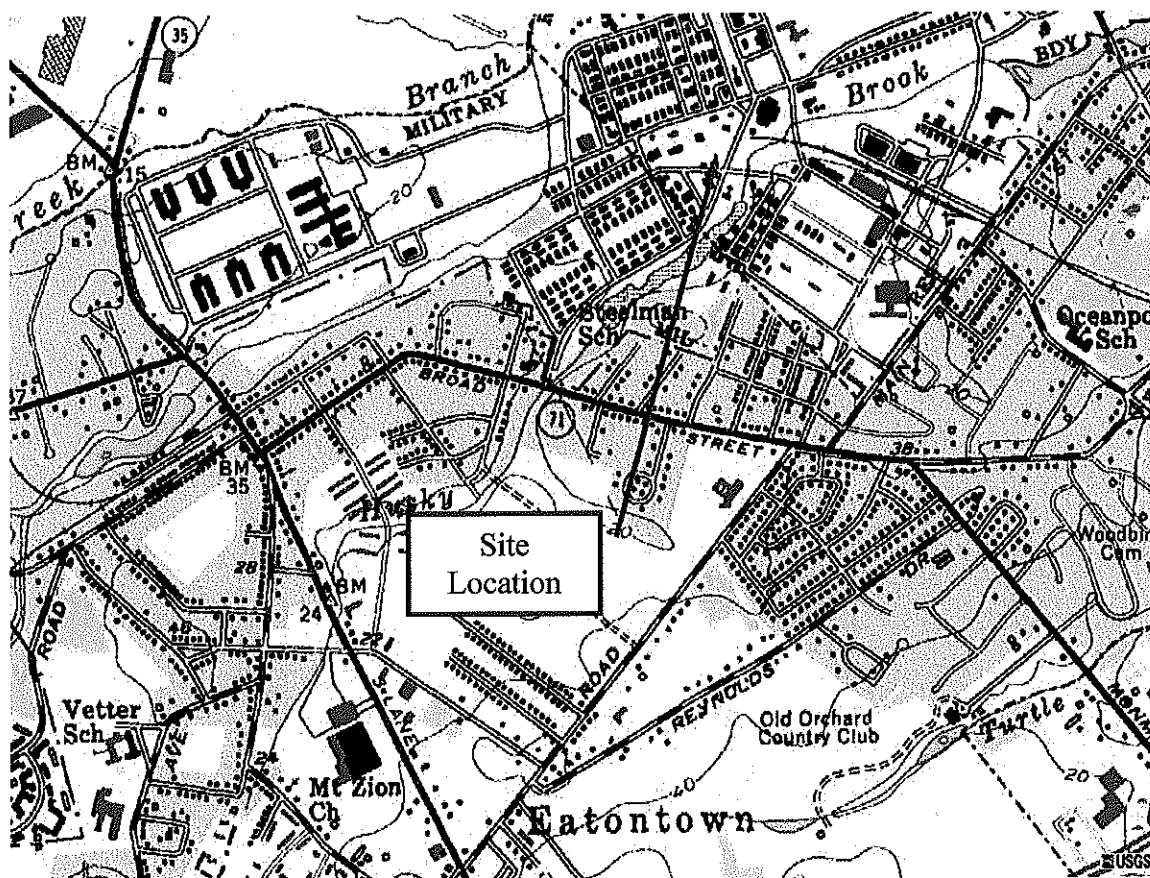
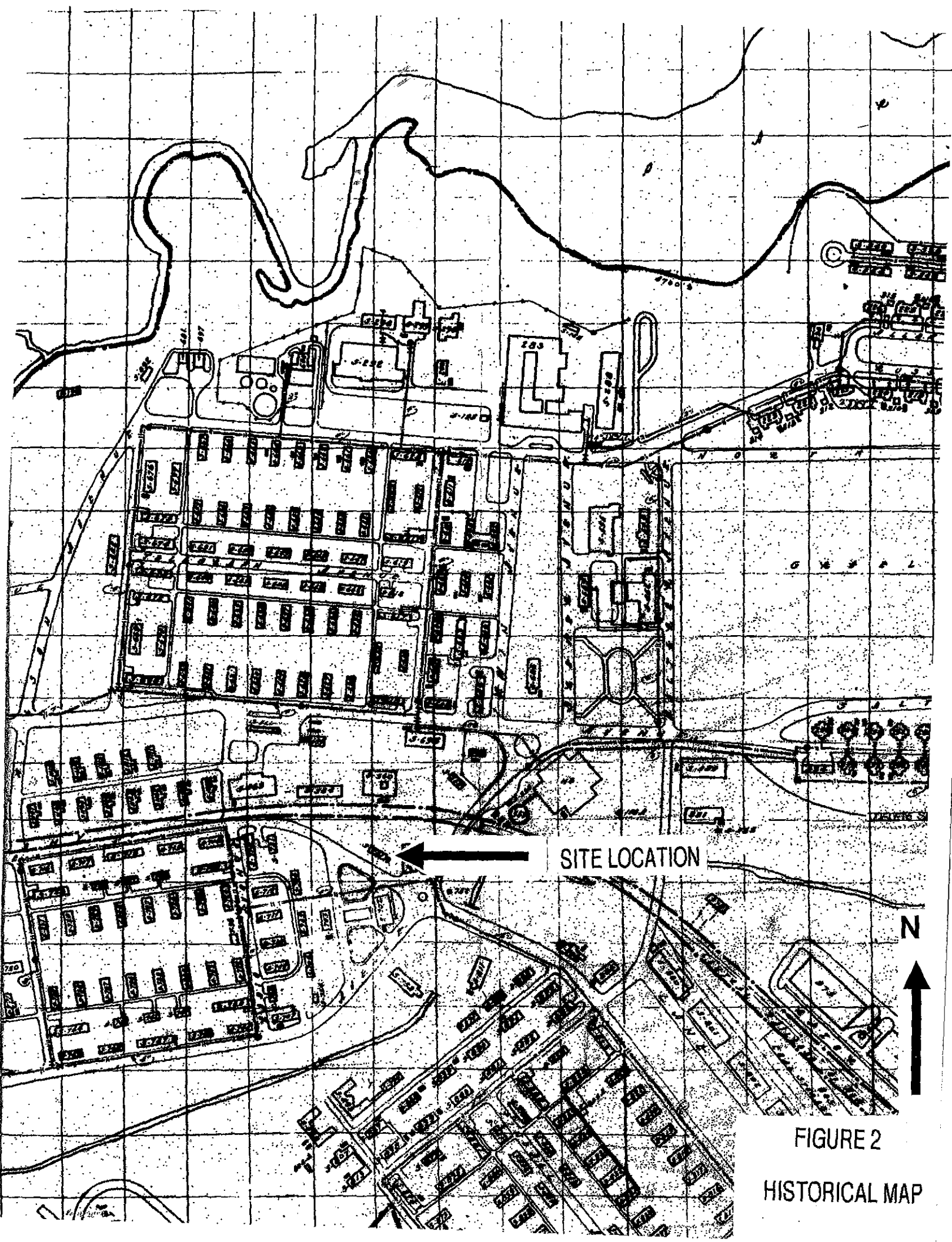


FIGURE 1

SITE LOCATION MAP
(FORMER) BUILDING 701A
UST NO. 81533-115
FT. MONMOUTH, NJ

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



701W
701C
701E

Alexander Ave.

North

FIGURE 3 Soil Sample Location Map (former) Building 701A	
U.S. Army Garrison Fort Monmouth, New Jersey	
SCALE: 1" = 30'	DATE: February, 2008

TABLES

TABLE 1

SUMMARY OF LABORATORY ANALYSIS

**FT. MONMOUTH, (former) BUILDING 701, UST No. 81533-113
24 January 2006**

SAMPLE ID	LABORATORY SAMPLE ID	SAMPLE DATE	SAMPLE MATRIX	ANALYTICAL PARAMETER	ANALYTICAL METHOD
701W	6004801	24-Jan-06	SOIL	TPH	OQA-QAM-25
701C	6004802	24-Jan-06	SOIL	TPH	OQA-QAM-25
701E	6004804	24-Jan-06	SOIL	TPH	OQA-QAM-25
701Duplic.	6004803	24-Jan-06	SOIL	TPH	OQA-QAM-25
701C-Groundwater	6004805	24-Jan-06	AQUEOUS	VOA, SVOA	SW-846, EPA 625
Trip Blank	6004806	24-Jan-06	AQUEOUS	VOA	SW-846
Trip Blank	6004807	24-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 701, UST No. 81533-113
24 January 2006

TOTAL PETROLEUM HYDROCARBONS

SAMPLE ID	LABORATORY SAMPLE ID	SAMPLE LOCATION	SAMPLE DEPTH	MATRIX	TPH RESULTS
			(in feet)		mg/kg
701W	6004801	WEST END UST	7.5 – 8.0	Soil	ND
701C	6004802	CENTER UST	7.5 – 8.0	Soil	ND
701E	6004804	EAST END UST	4.5 – 5.0	Soil	ND
701-Duplic.	6004803	CENTER 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 701, UST No. 81533-113

24 January 2006

SEMI-VOLATILE ORGANIC COMPOUNDS

SAMPLE ID	LAB SAMPLE ID	Bis(2-Ethylhexyl) phthalate
UNITS		ug/L
701C- Groundwater	6004805	13.83
NJDEP Criteria	Ground Water Quality Crireria	3.0

ABBREVIATIONS:

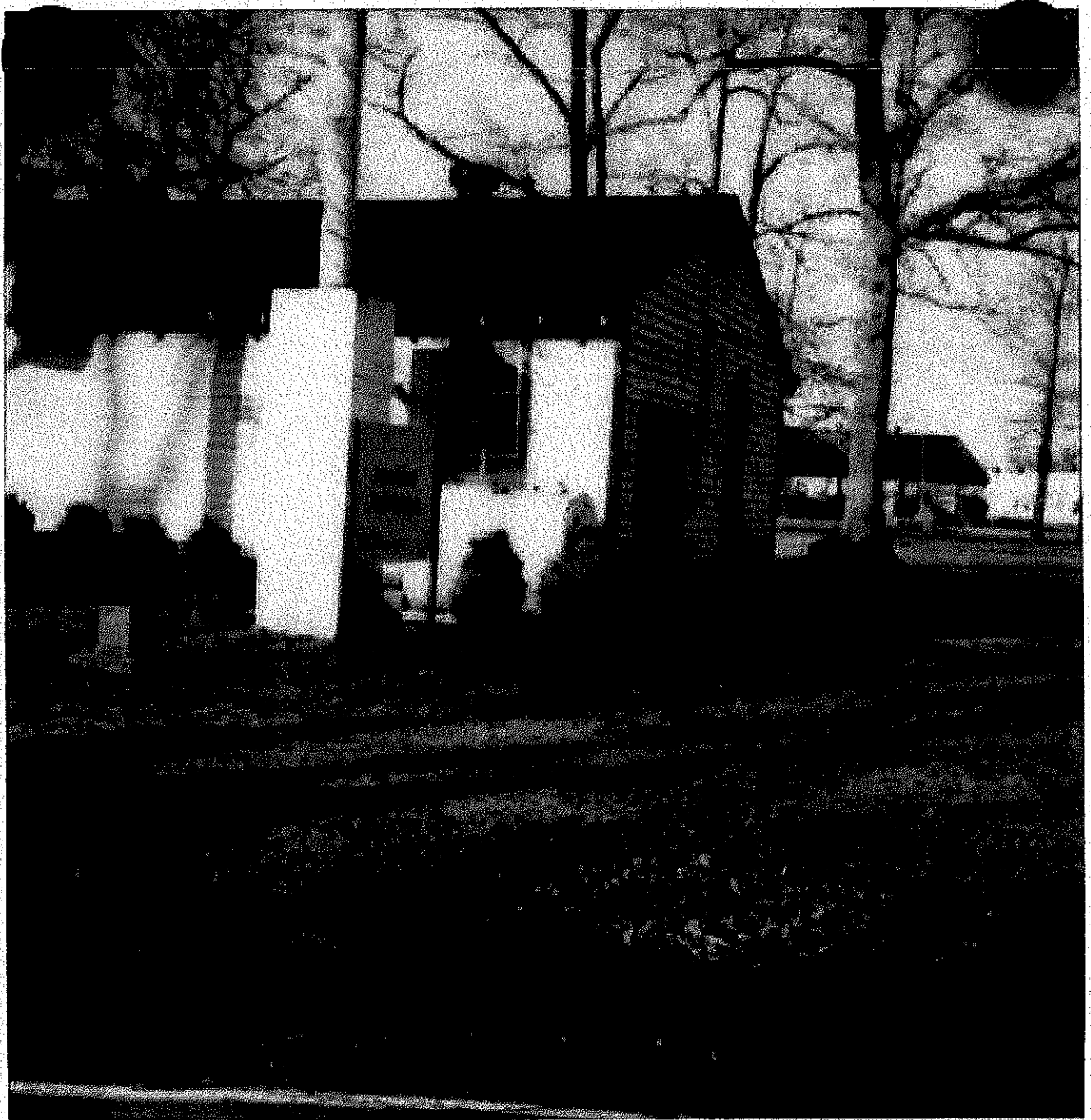
ug/L = Micrograms Per Liter = parts per billion
ND = Compound Not Detected
NA = Compound Not Analyzed
NLE = No Limit Established

Notes:

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

APPENDIX A

CERTIFICATIONS



701

1/4/92

1450

Rockhousey

81533-113

1000 gal

#2 Fuel Oil



Bldg 701A

For State Use Only

Date Rec'd. _____

Auth _____

Routing _____

UST NO. _____

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 020
TRENTON, NEW JERSEY 08625
ATTN: BUST Program
(609) 984-3156

STANDARD REPORTING FORM

for the:

Installation/Abandon/Remove/Sale-Transfer/Substantial Modification

Circle Only One — Use One Form Per Activity

(More than one tank can be listed per tank activity)

Answer questions 1 through 5 and others as applicable:

1. Company name and address: (as it appears on registration questionnaire)

U.S. Army

DEH Bldg. #167

Attn: SERFM-EH

Fort Monmouth, NJ 07703

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

U.S. Army Fort Monmouth

Main Post West

3. Contact person for this activity:

Mr. Joseph M. Fallon

Telephone Number: (908) 532-6223

4. The identification number of the affected tank as it appears in Question Number 12 on the Registration Questionnaire:

Tank Nos. 58, 88, 95, 104, 110, 113, 146, 148, 158, + 163

Bdgs. 283A, 614, 622, 676, 692, 701A, 906, 910, 1004, 1103

5. Registration Number (if known): UST -

0081533

(OVER)



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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. _____

Check off the following items as appropriate for the site.

58, 88, 95,

☒ The UST facility is only regulated by State law, therefore a site assessment is not mandatory. 104, 110, 113,

146, 148, 158,

☐ The UST facility is regulated by Federal law and a site assessment was conducted. 163.

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

James Ott

JAMES OTT

Acting Director
Div, Engineering and Housing

22 NOV 1991

Date / /

(Title)



DEPARTMENT OF THE ARMY
Headquarters, U.S. Army Garrison Fort Monmouth
Fort Monmouth, New Jersey 07703-5000



REPLY TO
ATTENTION OF

Directorate of Engineering
and Housing

22 NOV 1991

SUBJECT: Removal Procedure:

U.S. Army Fort Monmouth
Main Post West
Site Registration #0081533
Tank #58, 88, 95, 104, 110, 113, 146, 148, 158, 163
POC: Joseph M. Fallon (908) 532-6223

The remaining product inside each tank was removed for disposal by Lionetti Oil Recovery Co., Inc. Lionetti is a licensed hazardous waste transporter and treatment, storage, and disposal facility (USEPA ID #NJD084044064).

The top of each tank was excavated and cut open across the entire length of the tank. In addition, the inside of each tank was hand cleaned and thoroughly wiped down. The soil from the top of each excavation was visually inspected and analyzed using a HNU Model PI-101 photoionizer. No contamination was detected.

After each tank was cleaned, a visual inspection was made inside the tanks for signs of leakage. No corrosion was found inside the tanks.

Each tank was then removed from the ground and disposed of through a metal recycler. No contamination was discovered at the sites upon removing the tanks.

Each site was then backfilled with the excavated soil to close out the project.

Site Remediation Program
UST Site Remedial Investigation Report

A. Facility Name: Building 701
Facility Street Address: 701 Nicodemus 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: 81533-115 (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. 701

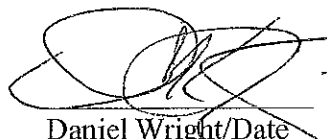
Bldg. 701

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
701W 7.5-8.0'	6004801	Soil	24-Jan-06 09:25	01/24/06
701C 7.5-8.0'	6004802	Soil	24-Jan-06 09:52	01/24/06
Duplicate	6004803	Soil	24-Jan-06 09:52	01/24/06
701E 4.5-5.0'	6004804	Soil	24-Jan-06 10:33	01/24/06
701C GW	6004805	Aqueous	24-Jan-06 11:08	01/24/06
Trip Blank	6004806	Aqueous	24-Jan-06	01/24/06
Trip Blank	6004807	Methanol	24-Jan-06	01/24/06

ANALYSIS:

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

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS


3-6-06
Daniel Wright/Date
Laboratory Director

The enclosed report relates only to the items tested. The report may not be reproduced, except in full, without written approval of the U.S. Army Fort Monmouth Directorate of Public Works.

**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 compound however the result is less than the MDL but greater than zero.
 - (2) When estimating the concentration of a tentatively identified compound (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 VB021618.D
Operator Skelton
Date Acquired 3 Feb 2006 4:05 pm

Sample Name MB 03Feb2006
Field ID MB 03Feb2006
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			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

000016

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

MB 03Feb2006

Lab Name: FMETL NJDEP#: 13461
Project: 06-34880 Case No.: 60048 Location: 701 SDG No.: UST
Matrix: (soil/water) WATER Lab Sample ID: MB 03Feb2006
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB021618.D
Level: (low/med) LOW Date Received: 1/23/2006
% Moisture: not dec. _____ Date Analyzed: 2/3/2006
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/LNumber TICs found: 4

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	12.51	34	J
2.	unknown	20.58	4	J
3.	unknown	24.39	15	J
4.	unknown	25.77	5	J

Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File VB021623.D
 Operator Skelton
 Date Acquired 3 Feb 2006 7:24 pm

Sample Name 6004806
 Field ID Trip Blank
 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			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
 B = 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

000018

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

Trip Blank

Lab Name: FMETL NJDEP#: 13461
Project: 06-34880 Case No.: 60048 Location: 701 SDG No.: UST
Matrix: (soil/water) WATER Lab Sample ID: 6004806
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB021623.D
Level: (low/med) LOW Date Received: 1/23/2006
% Moisture: not dec. _____ Date Analyzed: 2/3/2006
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: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File VB021626.D
 Operator Skelton
 Date Acquired 3 Feb 2006 9:27 pm

Sample Name 6004805
 Field ID 701C-GW
 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			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	1,1,1,2,2-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

000020

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

701C-GW

Lab Name: FMETL NJDEP#: 13461
Project: 06-34880 Case No.: 60048 Location: 701 SDG No.: UST
Matrix: (soil/water) WATER Lab Sample ID: 6004805
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB021626.D
Level: (low/med) LOW Date Received: 1/23/2006
% Moisture: not dec. _____ Date Analyzed: 2/3/2006
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

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

Data File Name **BNA11471.D**
 Operator **BPatel**
 Date Acquired **30-Jan-06**

Sample Name **MB-012706-01**
 Misc Info **MB-012706-01**
 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
 Operator BPatel
 Date Acquired 30-Jan-06

Sample Name MB-012706-01
 Misc Info MB-012706-01
 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

Page 2 of 2

000037

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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.: 60048 Location: 701 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: 1/24/2006
% 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:

CONCENTRATION UNITS:

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

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

Data File Name **BNA11478.D**
 Operator **BPatel**
 Date Acquired **30-Jan-06**

Sample Name **6004805**
 Misc Info **701C-GW**
 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 BNA11478.D
 Operator BPatel
 Date Acquired 30-Jan-06

Sample Name 6004805
 Misc Info 701C-GW
 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	27.68	624296	13.83 ug/L	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.

701C-GW

Lab Name: FMETL Lab Code 13461
Project: 06-34880 Case No.: 60048 Location: 701 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 6004805
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA11478.D
Level: (low/med) LOW Date Received: 1/24/2006
% 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:

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Attachment B: Fort Monmouth UST Status Summary Report for 701B

Fort Monmouth UST Status Summary Report

UST REGISTRATION INFORMATION SUMMARY

LOCATION: 701 B **NJDEP REG ID:** 81533 - 115
RESIDENTIAL? NO

UST CONSTRUCTION INFORMATION SUMMARY

SIZE (GALLONS): 1000 **CONSTRUCTION:** STEEL
PRODUCT: #2 FUEL OIL **YEAR INSTALLED:** 1963

UST REMOVAL/INVESTIGATION SUMMARY

REMOVAL DATE: **REMOVAL CONTRACTOR:**
SRF SEND DATE: DEP RCVD **TMS:** REMOVED 6-8-90?
DICAR NO. **LEAK DETECT:**

REMEDICATION COMMENTS: No UST present at this location; registered tank is an aboveground tank.

REGISTRATION COMMENTS: Needs delisting; UST removed as per Command. Needs Site Assessment.

SAS DONE: NO **CONSULTANT:**

MWs NEEDED: **MONITORING WELLS:** 0

SUB-SURFACE EVALUATOR:

CURRENT UST STATUS

UST STATUS: OTHER **CASE STATUS:** Case Closed
SUBMITTAL DATE: **APPROVAL DATE:**
FINALIZED: No

**Attachment C: Underground Storage Tank Closure Report NJDEP
UST Registration No. 81533-114**

United States Army

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

***Building 702
Main Post Area***

NJDEP UST Registration No. 081533-114

NJDEP Closure Approval No. C-93-3890

February 1996

SMITH
ENVIRONMENTAL TECHNOLOGIES CORPORATION

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

BUILDING 702

**MAIN POST AREA
NJDEP UST REGISTRATION NO. 081533-114
NJDEP CLOSURE APPROVAL NO. C-93-3890**

FEBRUARY 1996

**PROJECT NO.: 09-5004-01
CONTRACT NO.: DACA51-94-D-0014**

PREPARED FOR:

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

PREPARED BY:

**SMITH ENVIRONMENTAL TECHNOLOGIES CORPORATION
BROMLEY CORPORATE CENTER
THREE TERRI LANE
BURLINGTON, NEW JERSEY 08016**

702.DOC





TABLE OF CONTENTS

EXECUTIVE SUMMARY	iv
1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES	1
1.1 OVERVIEW	1
1.2 SITE DESCRIPTION	2
1.2.1 Geological/Hydrogeological Setting	2
1.3 HEALTH AND SAFETY	3
1.4 REMOVAL OF UNDERGROUND STORAGE TANKS	4
1.4.1 General Procedures	4
1.4.2 Underground Storage Tank Excavation and Cleaning	4
1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL	5
1.6 MANAGEMENT OF EXCAVATED SOILS	5
2.0 SITE INVESTIGATION ACTIVITIES	6
2.1 OVERVIEW	6
2.2 FIELD SCREENING/MONITORING	6
2.3 SOIL SAMPLING	7
3.0 CONCLUSIONS AND RECOMMENDATIONS	8
3.1 SOIL SAMPLING RESULTS	8
3.2 CONCLUSIONS AND RECOMMENDATIONS	8

Following Page No.

TABLES

Table 1	Summary of Post-Excavation Sampling Activities	7
Table 2	Post-Excavation Soil Sampling Results	8



TABLE OF CONTENTS (CONTINUED)

Following Page No.

FIGURES

Figure 1	Site Location Map	1
Figure 2	Site Map	2
Figure 3	Soil Sampling Results	7

APPENDICES

Appendix A	NJDEP-BUST Closure Approval
Appendix B	Certifications
Appendix C	Waste Manifest
Appendix D	UST Disposal Certificate
Appendix E	Soil Analytical Data Package

EXECUTIVE SUMMARY

UST Closure

On May 11, 1994, a steel underground storage tank (UST) was closed by removal in accordance with Closure Approval No. C-93-3890 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-114, was located immediately adjacent to Building 702 in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-114 was a 1,000-gallon No. 2 diesel oil UST. The UST fill port was located directly above the tank. The tank closure was performed by Cleaning Up The Environment Inc. (CUTE).

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). Soils surrounding the tank were screened visually and with air monitoring instruments for evidence of contamination. Following removal, the UST was inspected for holes. No holes were noted in the UST and no evidence of potentially contaminated soils was observed surrounding the tank.

On May 11, 1994, following removal of the UST, post-excavation soil samples A, B, C, and D, were collected from a total of four (4) locations along the sidewalls of the excavation at a depth of 5.5 feet below ground surface (bgs). A concrete pad was located at the base of the excavation at a depth of 6.0 feet bgs. Sample F was collected from the base of the excavation immediately adjacent to and below the concrete pad. Sample E was collected from the piping portion of the excavation, which was approximately 20 feet in length. The piping sample was collected at a depth of 6.0 inches bgs. All samples were analyzed for total petroleum hydrocarbons (TPHC).

Findings

All post-excavation soil samples collected from the UST excavation and from below piping associated with the former UST at Building 702 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). Samples A, B, C, D, E, and F, contained levels of TPHC ranging in concentration from 9.72 mg/kg to 44.3 mg/kg.

Site Restoration

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.



Site Assessment Quality Assurance

The sampling and laboratory analysis conducted during the site assessment were performed in accordance with Section 7:26E-2.1 of the *Technical Requirements*.

Conclusions and Recommendations

Based on the post-excavation soil sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria for total organic contaminants of 10,000 mg/kg do not exist in the former location of the UST or associated piping.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-114 at Building 702.



1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-114, was closed at Building 702 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on May 11, 1994. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on August 5, 1993. The plan was approved on September 7, 1993 and assigned TMS No. C-93-3890. The UST was a steel 1,000-gallon tank containing No. 2 diesel oil.

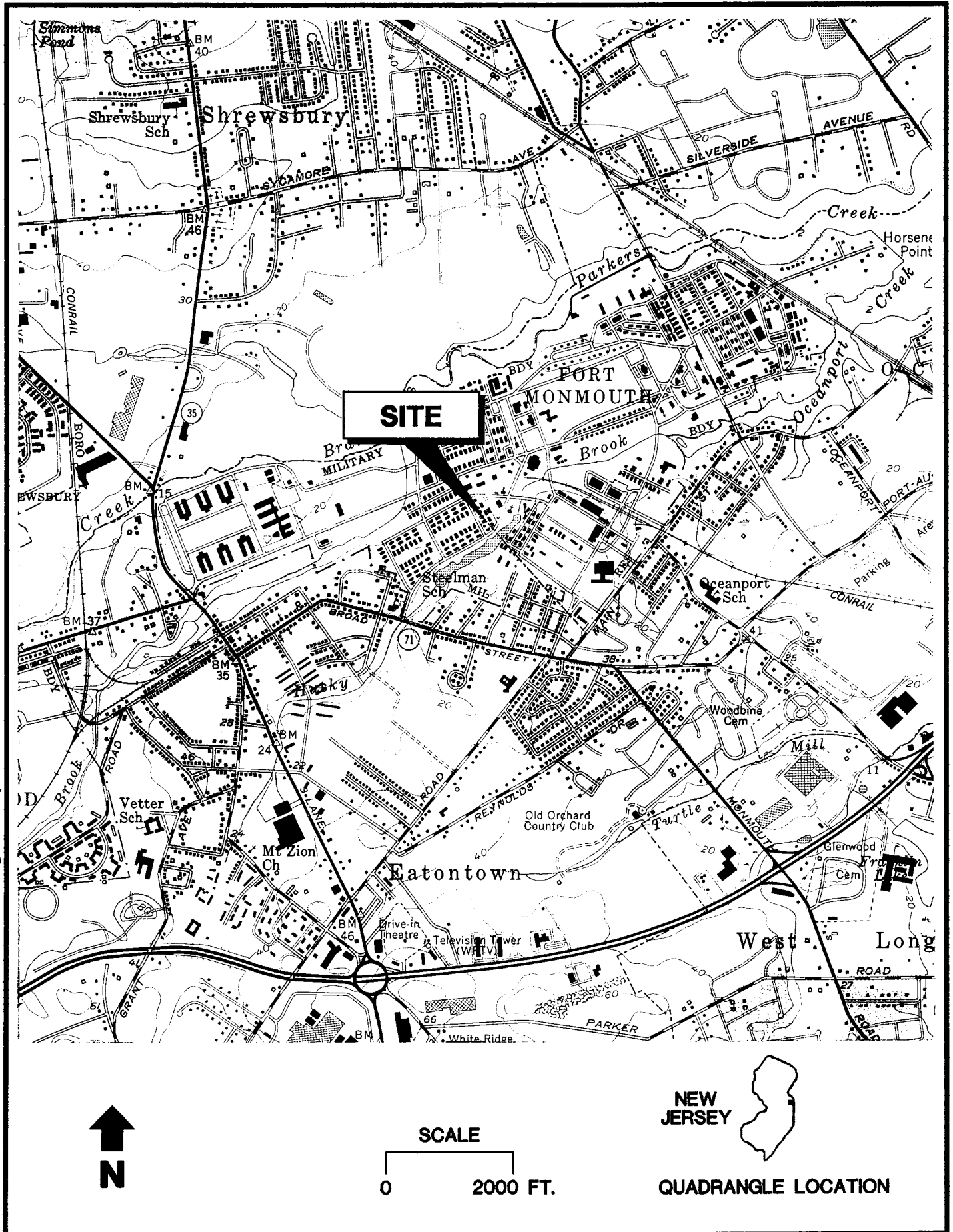
Decommissioning activities for UST No. 081533-114 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. CUTE Inc., the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 081533-114 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and signed certifications for UST No. 081533-114 are included in Appendices A and B, respectively.

Based on an inspection of the UST, field screening of subsurface soils and analytical results of collected soil samples, the DPW has concluded that no significant historical discharges are associated with the UST or associated piping.

This UST Closure and Site Investigation Report has been prepared by Smith Environmental Technologies Corporation, to assist the United States Army Directorate of Public Works (DPW) in complying with the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST) regulations. The applicable NJDEP-BUST regulations at the date of closure were the *Interim Closure Requirements for Underground Storage Tank Systems* (N.J.A.C. 7:14B-1 et seq. September 1990 and revisions dated November 1, 1991).

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

Source: BCM/Smith Environmental Technologies Corporation (028)



1.2 SITE DESCRIPTION

Building 702 is located in the southwestern portion of the Main Post area of Fort Monmouth as shown on Figure 1. UST No. 081533-114 was located southwest of Building 702 and appurtenant piping ran approximately 20 feet east from the excavation to Building 702. The fill port was located directly above the UST. 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 702. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

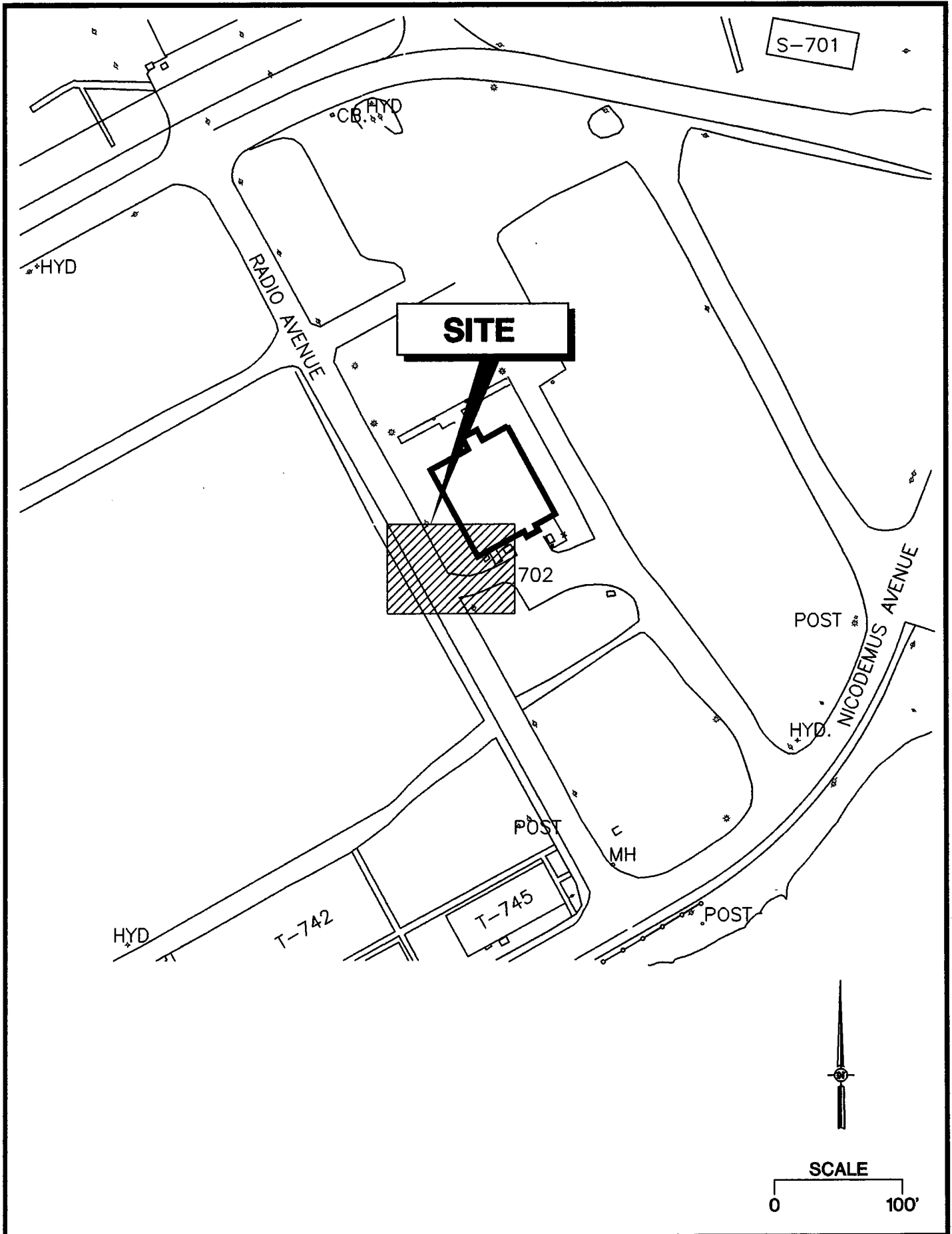
In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka,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

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. Over 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations, and the Cohansey Sand) while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown, and Navesink Formations). The individual 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 Zapeczka, 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,

Source: BCM/Smith Environmental Technologies Corporation (070)



Project No. 09-5004-06

Figure 2
**Building 702
Site Map**

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.

1.3 HEALTH AND SAFETY

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

1.4 REMOVAL OF UNDERGROUND STORAGE TANKS

1.4.1 General Procedures

- All underground obstructions (utilities, etc.) were marked out by the contractor performing the closure prior to excavation activities.
- All activities were carried out with the greatest regard to safety and health and the safeguarding of the environment.
- All excavated soils were visually examined and screened with an OVA for evidence of contamination. Potentially contaminated soils were identified and logged during closure activities.
- Surface materials (i.e., asphalt, concrete, etc.) were excavated and staged separately from all soil and recycled in accordance with all applicable regulations and laws.
- A Sub-Surface Evaluator from the DPW was present during all closure 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 532 gallons of liquid were transported by Freehold Cartage Inc. to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal facility located in Old Bridge, New Jersey. Refer to Appendix C for waste manifest (No. NJA-1603245).

The UST was cleaned prior to removal from the excavation in accordance with NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. No holes or punctures were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. No evidence of contamination was noted.

Soil screening was also performed along the piping associated with the UST. No contamination was noted anywhere along the piping length.



1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported by CUTE Inc., to Mazza and Sons for disposal in compliance with all applicable regulations and laws. See Appendix D for UST Disposal Certificate.

The Subsurface Evaluator labeled the UST prior to transport with the following information:

- site of origin
- contact person
- NJDEP UST Facility ID number
- name of transporter/contact person
- destination site/contact person

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and TPHC analysis results from the post-excavation soil samples, no soils exhibited signs of contamination. Therefore, the excavated soils were used as backfill following removal of the UST.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

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

The following Parties participated in Closure and Site Investigation Activities:

- Closure Contractor: Cleaning Up The Environment Inc., (CUTE)
Contact Person: Nancy Williams
Phone Number: (201) 427-2881
NJDEP Company Certification No.: 0200128
- Subsurface Evaluator: Dinkerrai M. Desai
Employer: U.S. Army, Fort Monmouth
Phone Number: (908) 532-1475
NJDEP Certification No.: E0002266
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Brian K. McKee
Phone Number: (908) 532-4359
NJDEP Company Certification No.: 13461
- Hazardous Waste Hauler: Freehold Cartage Inc.
Contact Person: Barry Olsen
Phone Number: (908) 462-1001
NJDEP Hazardous Waste Hauler No.: 2265

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Soil excavated from around the tank and appurtenant piping, as well as the UST excavation sidewalls and bottom did not exhibit any evidence of potential contamination.

2.3 SOIL SAMPLING

On May 11, 1994, post-excavation soil samples A, B, C, and D, were collected from a total of four (4) locations along the sidewalls of the UST excavation at a depth of 5.5 feet below ground surface (bgs). A concrete pad was located at the base of the excavation at a depth of 6.0 feet bgs. Sample F was collected from the base of the excavation immediately adjacent to and below the concrete pad. Post-excavation soil sample E was collected immediately below the former location of piping, which was approximately 20 feet in length. Sample E was collected at a depth of 6.0 inches bgs. Refer to soil sampling location map on Figure 3. All samples were analyzed for total petroleum hydrocarbons (TPHC). Because none of the post-excavation soil samples exhibited a TPHC concentration exceeding 1,000 milligrams per kilogram (mg/kg), none were analyzed for volatile organic compounds with a forward library search for 10 tentatively identified compounds (VOCs).

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements* and the NJDEP *Field Sampling Procedures Manual*. A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using polystyrene scoops. Actual soil TPHC values may be higher than reported, due to sample utensil absorbency. If absorbency resulted in reducing the actual soil TPHC concentration by 50%, the highest soil contaminant would have been 88.6 mg/kg, still below the applicable NJDEP soil cleanup standard for total organic contaminants of 10,000 mg/kg. Following soil sampling activities, the samples were chilled and delivered to U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis.

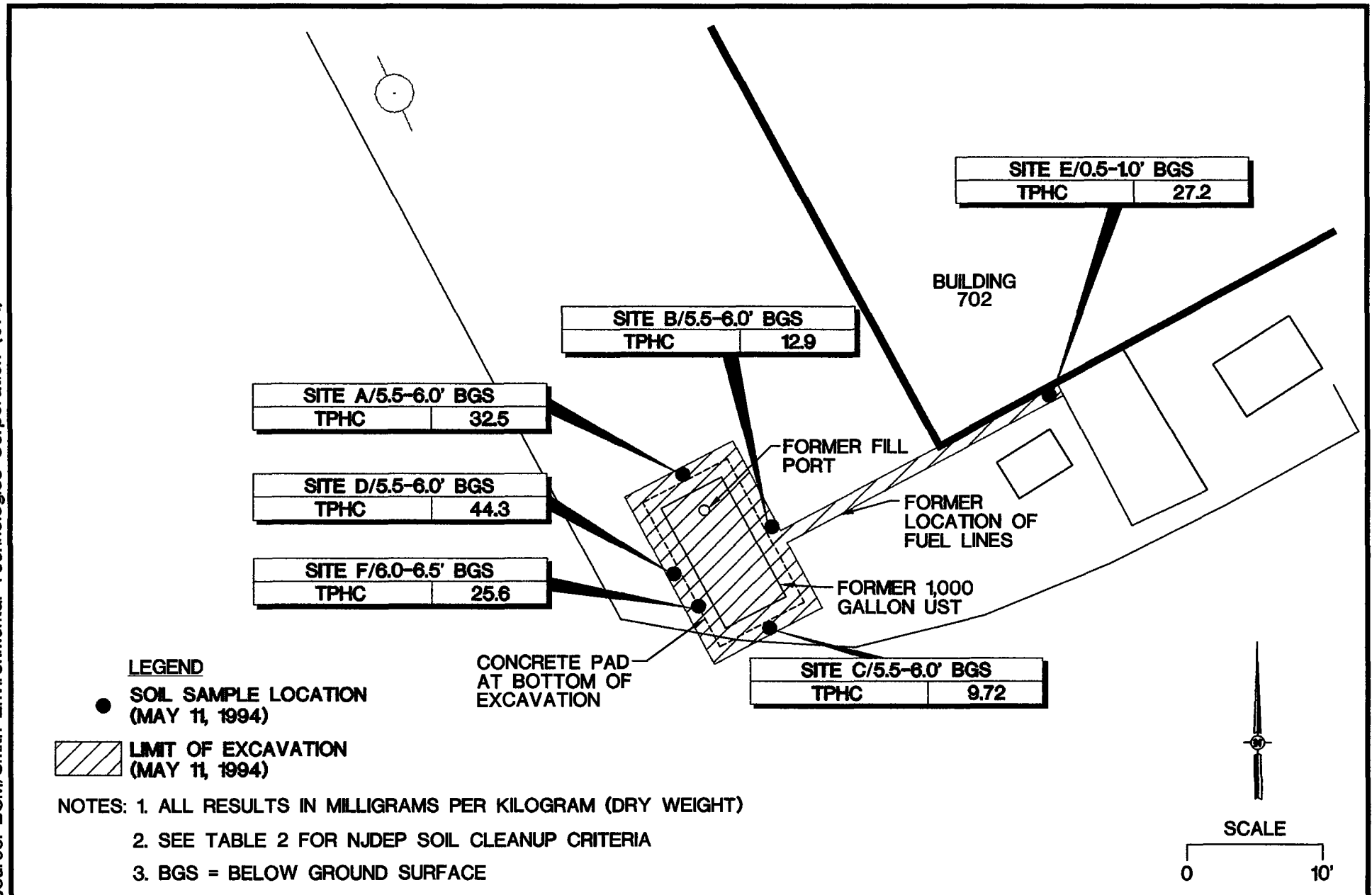


TABLE 1

SUMMARY OF SAMPLING ACTIVITIES
BUILDING 702, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	05-11-94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
B	05-11-94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
C	05-11-94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D	05-11-94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
E	05-11-94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
F	05-11-94	Soil	Post-Excavation	TPHC	Polystyrene Scoop

*Note: TPHC Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected from a total of six (6) locations on May 11, 1994. All samples were analyzed for TPHC. The post-excavation soil sample results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and the soil sampling results are shown on Figure 3. The soil analytical data package is provided in Appendix E.

All post-excavation soil samples collected on May 11, 1994, from the UST excavation and from below piping associated with the UST contained either non-detectable concentrations of TPHC or concentrations below the NJDEP soil cleanup criteria. Samples A, B, C, D, E, and F contained levels of TPHC ranging in concentration from 9.72 mg/kg to 44.3 mg/kg.

3.2 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 702 were below the NJDEP soil cleanup criteria for total organic contaminants.

Based on the post-excavation soil sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria of 10,000 mg/kg do not exist in the former location of the UST or associated piping.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-114 at Building 702.

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 702
 FT. MONMOUTH, NEW JERSEY

PAGE 1 OF 1

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
A/5.5-6.0'	1489.1	5/11/94	5/12/94	Total Solid	--	--	90 %	--	--
				TPHC	6.6	yes	32.5	10,000	--
B/5.5-6.0'	1489.2	5/11/94	5/12/94	Total Solid	--	--	82 %	--	--
				TPHC	6.6	yes	12.9	10,000	--
C/5.5-6.0'	1489.3	5/11/94	5/12/94	Total Solid	--	--	82 %	--	--
				TPHC	6.6	yes	9.72	10,000	--
D/5.5-6.0'	1489.4	5/11/94	5/12/94	Total Solid	--	--	90 %	--	--
				TPHC	6.6	yes	44.3	10,000	--
E/1.0-1.5'	1489.5	5/11/94	5/12/94	Total Solid	--	--	88 %	--	--
				TPHC	6.6	yes	27.2	10,000	--
F/6.0-6.5'	1489.6	5/11/94	5/12/94	Total Solid	--	--	83 %	--	--
				TPHC	6.6	yes	25.6	10,000	--

Notes:

* Cleanup criteria for total organics

-- Not applicable / does not exceed criteria

TPHC Total Petroleum Hydrocarbons

Smith Environmental Technologies Corporation (Project No. 09-5004-06)

soil702.doc

SMITH

APPENDIX A

NJDEP BUST CLOSURE APPROVAL

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL
PROTECTION AND ENERGY

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

TMS #

UST #

C-93-3890

0081533

US Army
BLDG. 702
Ft. Monmouth, NJ

Monmouth

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

Removal of: one 1,000 gallon #2 diesel UST(s) and appurtenant
piping.

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

ON-SITE MANAGER: C. Appleby

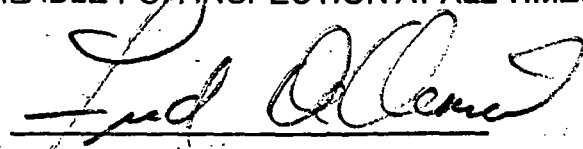
TELEPHONE: 908-532-1475

OWNER:

TELEPHONE:

EFFECTIVE DATE: SEP 07 1993

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



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

SMITH

APPENDIX B
CERTIFICATIONS



UST# _____
Date Rec'd _____
TMS# _____
Staff _____

State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation

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

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

**UNDERGROUND STORAGE TANK
SITE ASSESSMENT SUMMARY**

*Under the provisions of the Underground Storage
of Hazardous Substances Act
in accordance with N.J.A.C. 7:14B*

This Summary form shall be used by all owners and operators of Underground Storage Tank Systems (USTS) who have either reported a release and are subject to the site assessment requirements of N.J.A.C. 7:14B-8.2 or who have closed USTS pursuant to N.J.A.C. 7:14B-9.1 et seq. and are subject to the site assessment requirements of N.J.A.C. 7:14B-9.2 and 9.3.

INSTRUCTIONS:

- Please print legibly or type.
- Fill in all applicable blanks. This form will require various attachments in order to complete the Summary. The technical guidance document, Interim Closure Requirements for UST's, explains the regulatory (and technical) requirements for closure and the Scope of Work, Investigation and Corrective Action Requirements for Discharges from Underground Storage Tanks and Piping Systems explains the regulatory (and technical) requirements for corrective action.
- Return one original of the form and all required attachments to the above address.
- Attach a sealed site diagram of the subject facility which shows the information specified in Item IV B of this form.
- Explain any "No" or "N/A" response on a separate sheet.

Date of Submission _____

Bldg. 702

081533-114

FACILITY REGISTRATION #

I. FACILITY NAME AND ADDRESS

U.S. Army, Fort Monmouth, New Jersey
Directorate of Engineering and Housing Building 167
Fort Monmouth, New Jersey 07703 County Monmouth
Telephone No. (908) 532-6224

OWNER'S NAME AND ADDRESS, if different from above

Telephone No. _____

II. DISCHARGE REPORTING REQUIREMENTS

- A. Was contamination found? ☐ Yes ☒ No If Yes, Case No. _____
(Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)
- B. The substance(s) discharged was(were) N/A
- C. Have any vapor hazards been mitigated? ☐ Yes ☐ No ☒ N/A

III. DECOMMISSIONING OF TANK SYSTEMS

Closure Approval No. C-93-3890

The site assessment requirements associated with tank decommissioning are explained in the Technical Guidance Document, Interim Closure Requirements for UST's, Section V. A-D. Attach complete documentation of the methods used and the results obtained for each of the steps of tank decommissioning used. Please include a site map which shows the locations of all samples and borings, the location of all tanks and piping runs at the facility at the beginning of the tank closure operation and annotated to differentiate the status of all tanks and piping (e.g., removed, abandoned, temporarily closed, etc.). The same site map can be used to document other parts of the site assessment requirements, if it is properly and legibly annotated.

IV. SITE ASSESSMENT REQUIREMENTS

A. Excavated Soil

Any evidence of contamination in excavated soil will require that the soil be classified as either Hazardous Waste or Non-Hazardous Waste. Please include all required documentation of compliance with the requirements for handling contaminated excavated soil (if any was present) as explained in the technical guidance documents for closure and corrective action. Describe amount of soil removed, its classification, and disposal location.

B. Scaled Site Diagrams

1. Scaled site diagrams must be attached which include the following information:

- North arrow and scale
- The locations of the ground water monitoring wells
- Location and depth of each soil sample and boring
- All major surface and sub-surface structures and utilities
- Approximate property boundaries
- All existing or closed underground storage tank systems, including appurtenant piping
- A cross-sectional view indicating depth of tank, stratigraphy and location of water table
- Locations of surface water bodies

C. Soil samples and borings (check appropriate answer)

- Were soil samples taken from the excavation as prescribed? ☒ Yes ☐ No ☐ N/A
- Were soil borings taken at the tank system closure site as prescribed? ☐ Yes ☐ No ☒ N/A
- Attach the analytical results in tabular form and include the following information about each sample:
 - Customer sample number (keyed to the site map)
 - The depth of the soil sample
 - Soil boring logs
 - Method detection limit of the method used
 - QA/QC Information as required

D. Ground Water Monitoring

1. Number of ground water monitoring wells installed 0
2. Attach the analytical results of the ground water samples in tabular form. Include the following information for each sample from each well:
 - a. Site diagram number for each well installed
 - b. Depth of ground water surface
 - c. Depth of screened interval
 - d. Method detection limit of the method used
 - e. Well logs
 - f. Well permit numbers
 - g. QA/QC information as required

V. SOIL CONTAMINATION

- A. Was soil contamination found? Yes ☒ No ☒
If "Yes", please answer Question B-E
If "No", please answer Question B

- B. The highest soil contamination still remaining in the ground has been determined to be:
1. N/A ppb total BTEX, N/A ppb total non-targeted VOC
 2. N/A ppb total B/N, N/A ppb total non-targeted B/N
 3. 44.3 ppm TPHC
 4. N/A ppb (for non-petroleum substance)

C. Remediation of free product contaminated soils

1. All free product contaminated soil on the property boundaries and above the water table are believed to have been removed from the subsurface Yes ☒ No ☒
2. Free product contaminated soils are suspected to exist below the water table Yes ☒ No ☒
3. Free product contaminated soils are suspected to exist off the property boundaries. Yes ☒ No ☒

D. Was the vertical and horizontal extent of contamination determined? Yes ☒ No ☒ N/A ☒

E. Does soil contamination intersect ground water? Yes ☒ No ☒ N/A ☒

VI. GROUND WATER CONTAMINATION N/A

- A. Was ground water contamination found? Yes ☒ No ☒
If "Yes", please answer Questions B-G.
If "No", please answer only Question B.

- B. The highest ground water contamination at any 1 sampling location and at any 1 sampling event to date has been determined to be:

1. _____ ppb total BTEX, _____ ppb total non-targeted VOC
2. _____ ppb total B/N, _____ ppb total non-targeted B/N
3. _____ ppb total MTBE, _____ ppb total TBA
4. _____ ppb (for non-petroleum substance)
5. greatest thickness of separate phase product found _____
6. separate phase product has been delineated Yes ☒ No ☒ N/A ☒

C. Result(s) of well search

1. A well search (including a review of manual well records) indicates that private, municipal or commercial wells do exist within the distances specified in the Scope of Work. Yes ☒ No ☒ N/A ☒
2. The number of these wells identified is _____.

D. Proximity of wells and contaminant plume

1. The shallowest depth of any well noted in the well search which may be in the horizontal or vertical potential path(s) of the contaminant plume(s) is _____ feet below grade (consideration has been given for the effects of pumping, subsurface structures, etc. on the direction(s) of contaminant migration). This well is _____ feet from the source and its screening begins at a depth of _____ feet.
2. The shallowest depth to the top of the well screen for any well in the potential path of the plume(s) (as described in D1 above) is _____ feet below grade. This well is located _____ feet from the source.
3. The closest horizontal distance of a private, commercial or municipal well in the potential path of the plume (as determined in D1) is _____ feet from the source. This well is _____ feet deep and screening begins at a depth of _____ feet.

E. A plan for separate phase product recovery has been included. ☐ Yes ☐ No ☐ N/AF. A ground water contour map has been submitted which includes the ground water elevations for each well.
☐ Yes ☐ No ☐ N/A

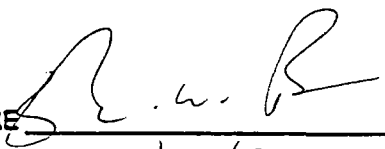
G. Delineation of contamination

1. The ground water contaminants have been delineated to MCLs or lower values at the property boundaries. ☐ Yes ☐ No
2. The plume is suspected to continue off the property at concentrations greater than MCLs.
☐ Yes ☐ No
3. Off property access (circle one): ☐ is being sought ☐ has been approved ☐ has been denied

VII. SITE ASSESSMENT CERTIFICATION [preparer of site assessment plan - N.J.A.C. 7:14B-6.3(b) & 9.5(a)3]

The person signing this certification as the "Qualified Ground Water Consultant" (as defined in N.J.A.C. 7:14B-1.6) responsible for the design and implementation of the site assessment plan as specified in N.J.A.C. 7:14B-8.3(a) & 9.2(b)2, must supply the name of the certifying organization and certification number.

"I certify under penalty of law that the information provided in this document is true, accurate, and complete and was obtained by procedures in compliance with N.J.A.C. 7:14B-8 and 9. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) Dinkerrai M. DesaiSIGNATURE COMPANY NAME U.S. Army, Fort Monmouth
(Preparer of Site Assessment Plan)DATE 2/14/94CERTIFYING ORGANIZATION NJDEPCERTIFICATION NUMBER E0002266

VIII. TANK DECOMMISSIONING CERTIFICATION [person performing tank decommissioning portion of closure plan - N.J.A.C. 7:14B-9.5(a)4]

"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. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____
(Performer of Tank Decommissioning)

IX. CERTIFICATIONS BY THE RESPONSIBLE PARTY(IES) OF THE FACILITY

- A. The following certification shall be signed by the highest ranking individual with overall responsibility for that facility [N.J.A.C. 7:14B-2.3(c)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 penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) James Ott SIGNATURE *James Ott*

COMPANY NAME U.S. Army, Fort Monmouth DATE 2/14/96

- B. The following certification shall be signed as follows [according to the requirements of N.J.A.C. 7:14B-2.3(C)2]:

1. For a corporation, by a principal executive officer of at least the level of vice president.
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 the principal executive officer or ranking elected official.
4. In cases where the highest ranking corporate partnership, governmental officer or official at the facility as required in A above is the same person as the official required to certify in B, only the certification in A need to be made. In all other cases, the certifications of A and B shall be made.

"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 immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____

SMITH

APPENDIX C
WASTE MANIFEST



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

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

03243

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

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address c/o James Shirghio, Bldg 2504, ATTN: SELFM-DL-EM-MS, Fort Monmouth, NJ 07703 MAIN POST		1. Generator's US EPA ID No. NJ03211010205917205917		A. State Manifest Document Number NJ 1603245		
4. Generator's Phone (908) 532-6224		6. US EPA ID Number NJ03211010205917205917		B. State Generator's ID NJ03211010205917205917		
5. Transporter 1 Company Name Freehold Cartage, Inc.		8. US EPA ID Number NJ03211010205917205917		C. State Trans. ID NJ03211010205917205917		
7. Transporter 2 Company Name		10. US EPA ID Number		D. Transporter's Phone (908) 462-1001		
9. Designated Facility Name and Site Address Lionetti Oil Recovery Co., Inc. Runyon & Cheesecake Rds. Old Bridge, NJ 08857		12. Containers No. Type		E. State Trans. ID		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM		13. Total Quantity		F. Transporter's Phone ()		
a. X Petroleum oil, N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III		14. Unit Wt/Vol		G. State Facility's ID		
b. X Petroleum oil, nos class 3 (Petroleum oil) combustible liquid UN 1270 PG III		1. Waste No.		H. Facility's Phone (908) 721-0900		
c. X Petroleum oil, nos class 3 (Petroleum oil) combustible liquid UN 1270 PG III		1. Waste No.				
d. X Petroleum oil, nos class 3 (Petroleum oil) combustible liquid UN 1270 P		1. Waste No.				
J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above				
a. T,L Petroleum Oil 70% Water 30%		T,L Petroleum Oil 70% Water 30%		T04 = Filtration		
b. T,L Petroleum Oil 70% Water 30%		T,L Petroleum Oil 70% Water 30%		T04 = Filtration		
15. Special Handling Instructions and Additional Information NOT REGULATED BY EPA. REGULATED AS HAZARDOUS WASTE IN NJ 24 HOUR EMERGENCY# 201-427-2881 NJ DECAL# 55462 a) 81533-126 b) 81533-119 c. 81533-114 D. 81533-OK						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Charles M. Appleby SELFM-Per-EU		Signature [Signature]		Month Day Year 6/14/12 11/12/14		
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name David S. Smith		Signature [Signature]		Month Day Year 10/12/12 12/12		
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 hazardous materials covered by this manifest except as noted in Item 19.						



APPENDIX D

UST DISPOSAL CERTIFICATE

P.09

FAX NO. 201 423 6050

C.U.T.E.

JUN-7-94 TUE 13:09

Fort Monmouth tanks

MAZZA & SONS, INC.

NO.

Bldg # List #

Metal Recyclers

DATE BMA, 96

745 / 0081533-119

Auto and Truck

702 / 0081533-114

3230 Shatto Rd.

789 / 0081533-126

Tinton Falls, NJ

707 - No closure

(908) 922-8282

Customer's Name

Cute inc.

Address

Make of
Auto

Fort Monmouth
Tanks

~~612j 745 NIDEP 0081533-119~~
~~702 NIDEP 0081533-114~~
~~789 NIDEP 0081533-126~~
707 No closure

39360 LB 6

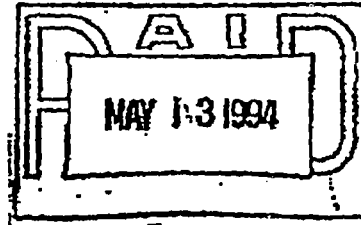
35720 LB 6

3640

Tires

Tank

Price



Weight

Price

Cast Iron

Steel

LI Iron

Copper #1

Copper #2

LI Copper

Brass

Alum Clean

Lead

Stainless

Radonics

Battery

TOTAL AMOUNT:

Weight

Customer

Don Ellis



APPENDIX E

SOIL ANALYTICAL DATA PACKAGE

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

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1489.1-.6
Sample Rec'd: 05/11/94
Analysis Start: 05/12/94
Analysis Comp: 05/12/94

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

NJDEPE UST Reg.#: 0081533-114
Closure #: C-93-3890
DICAR #:
Location #: Bldg. 702

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1489.1	Site A, W. Sidewall 6' OVA= ND	90	32.5	6.6
1489.2	Site B, N. Sidewall 6' OVA= ND	82	12.9	6.6
1489.3	Site C, E. Sidewall 6' OVA= ND	82	9.72	6.6
1489.4	Site D, S. Sidewall 6' OVA= 5.0	90	44.3	6.6
1489.5	Site E, Pipe at bldg. 1' OVA= ND	88	27.2	6.6
1489.6	Site F, S. pitbottom, below/ adjacent to pad, 6.5' OVA=2.0	83	25.6	6.6
M. Bl.	Method Blank	100	ND	3.3

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

* = Silica Gel Added, NA = Not Applicable

1489.1dup= 81% 1489.1spike= 118% 1489.1spike dup= 125% RPD= 3.5%



Brian K. McKee
Laboratory Director

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1489.1-6
Sample Rec'd: 05/11/94
Analysis Start: 05/12/94
Analysis Comp: 05/12/94

[illegible]

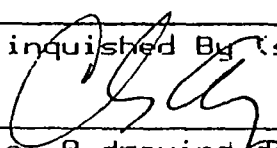
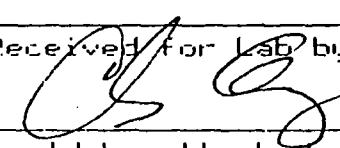
Brian K. McK

Brian K. McKee
Laboratory Director

P.O. #: PWS-007

Chain of Custody

Project #: <u>C-93-3890</u>		Sampler: <u>C. Appleby</u>		Date / Time: <u>5-11-94</u> <u>1515</u>		Analysis Parameters				Start:	
Customer: <u>C. Appleby DPW</u>		Site Name: <u>Bldg. 702</u>								Finish:	
Phone: <u>X26224</u>		OST# <u>81533-114</u> <u>C-93-3890</u>								Preservation Method	
Lab Sample Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% Solid	Munsell				Remarks
1489.1	5/11/94 1545	Site A - W-Sidewalk 6"	Soil	1	X	X	X				ND Samples kept 4°C
1.2	1547	Site B - N-Sidewalk 6"		1	X	X	X				ND
1.3	1548	Site C - E-Sidewalk 6"		1	X	X	X				ND
1.4	1549	Site D - S Sidewalk 6"		1	X	X	X				SPM
1.5	1557	Site E - Pipe Run @ Bldg. 1'		1	X	X	X				ND
1.6		Site F - S-Pls Both - Below/adjacent to Pad 65'			X	X	X				SPM
											OVA 1286C - SN- ASD114
											Calibrator w/Zero Air + 95PPM
											methane at 6ms Select 300
											read 100PPM - OK C. Appleby
											5-11/94 1412 hrs.

Relinquished By (signature):	Date / Time:	Received By (signature):	Shipped By:
	5/11/94 1610		
Relinquished By (signature):	Date / Time:	Received for Lab by (signature):	Date / Time:
	5/11/94 1610		5/11/94 1610

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

ATTACHED

195-6370-00

PRINTED IN U.S.A.

May 12, 1994 1050		100
Sarah J. Hubbard		90
Blank	0 MV	
40.5	106 MV	
81.5	210 MV	
163	409 MV	
1488.1	295 MV	100
1488.2	107 MV	90
1488.3	100 MV (dil 7)	
1488.4	188 MV (dil 17.5)	
1488.5	108 MV (dil 7)	
1488.6	119 MV (dil 7)	
1488 VOID	Sgt 5/12/94	100
1489.1	14 MV	
1489.1	12 MV Dup.	
1489.1	92 MV Spk.	
1489.1	97 MV Dup. Spk.	
1489.2	7 MV	
1489.3	6 MV	100
1489.4	18 MV	90
1489.5	12 MV	
1489.6	11 MV	

PHC Conformance/Non-conformance Summary Report

No Yes

1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank

☒ ☐

2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)

☐ ☒

3. IR Spectra submitted for standards, blanks, & samples

☐ ☒

4. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.

☐ ☒

5. Extraction holding time met.

(If not met, list number of days exceeded for each sample)

☐ ☒

6. Analysis holding time met.

(If not met, list number of days exceeded for each sample)

☐ ☒

Comments:

Laboratory Authentication Statement

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


Brian K. McKee
Laboratory Manager