

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

***Building 296
Main Post Area***

**NJDEP UST Registration No. 081533-69
NJDEP Closure Approval No. C-93-3917**

February 1996

SMITH
ENVIRONMENTAL TECHNOLOGIES CORPORATION

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

BUILDING 296

**MAIN POST AREA
NJDEP UST REGISTRATION NO. 081533-69
NJDEP CLOSURE APPROVAL NO. C-93-3917**

FEBRUARY 1996

**PROJECT NO.: 09-5004-07
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:

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EXECUTIVE SUMMARY

UST Closure

On November 16, 1993, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval No. C-93-3917 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 081533-69, was located immediately adjacent to Building 296 in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-69 was a 550-gallon No. 2 diesel 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) and the NJDEP *Field Sampling Procedures Manual*. Soils surrounding the tank were screened visually and with air monitoring instruments for evidence of contamination. Following removal, the UST was inspected for corrosion holes. No holes were noted in the UST, however, potentially contaminated soils were observed in the northeast corner of the excavation. Old copper fuel lines were discovered in this area while removing potentially contaminated soils by hand. It is believed that a previous UST existed but had been replaced by UST No. 081533-69. When the old UST was replaced, the old copper lines were abandoned in place with product still remaining in them. When UST No. 081533-69 was installed, new fuel/return lines were also installed.

On November 16, 1993, following removal of the UST, approximately 8 cubic yards of potentially contaminated soils were removed from the excavation. Post-excavation soil samples (A and B) were collected from two (2) locations along the base of the excavation. Post-excavation soil samples C and E were also collected from the new piping portion of the excavation, which was approximately 12 feet. Post-excavation samples D and F were collected from the old piping portion, which was approximately 20 feet in length. 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 296 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. 7:26E and revisions dated February 3, 1994). The samples collected on November 16, 1993 (A, B, C, D, E, and F) contained TPHC concentrations ranging from 8.81 mg/kg to 178.0 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 remain 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. 081533-69 at Building 296.



1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

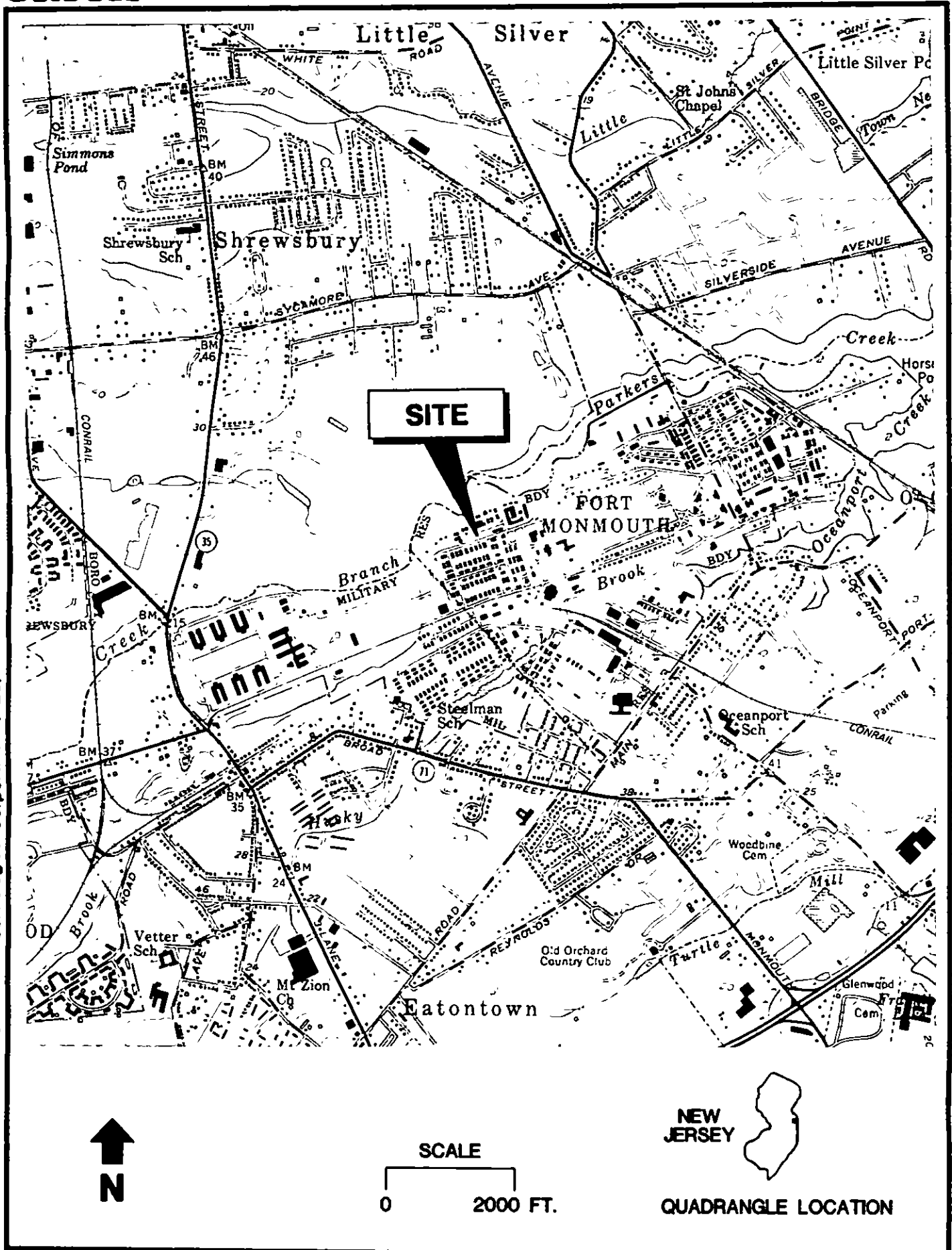
One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-69, was closed at Building 296 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on November 16, 1993. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on July 28, 1993. The plan was approved on September 7, 1993 and assigned TMS No. C-93-3917. The UST was a steel, 550-gallon tank containing No. 2 diesel.

Decommissioning activities for UST No. 081533-69 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. 081533-69 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and the signed certifications for UST No. 081533-69 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.



1.2 SITE DESCRIPTION

Building 296 is located in the northwestern portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 081533-69 was located south of Building 296 and the old copper piping ran approximately 20 feet south to the previous fill port area. The new piping ran approximately 12 feet south to the former fill port area. A site map is provided on Figure 2. The former fill port area was located directly above the tank adjacent to the A/C slab. The area surrounding Building 296 was assessed for old USTs using past maps and metal locating devices. None were found.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 296. 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.

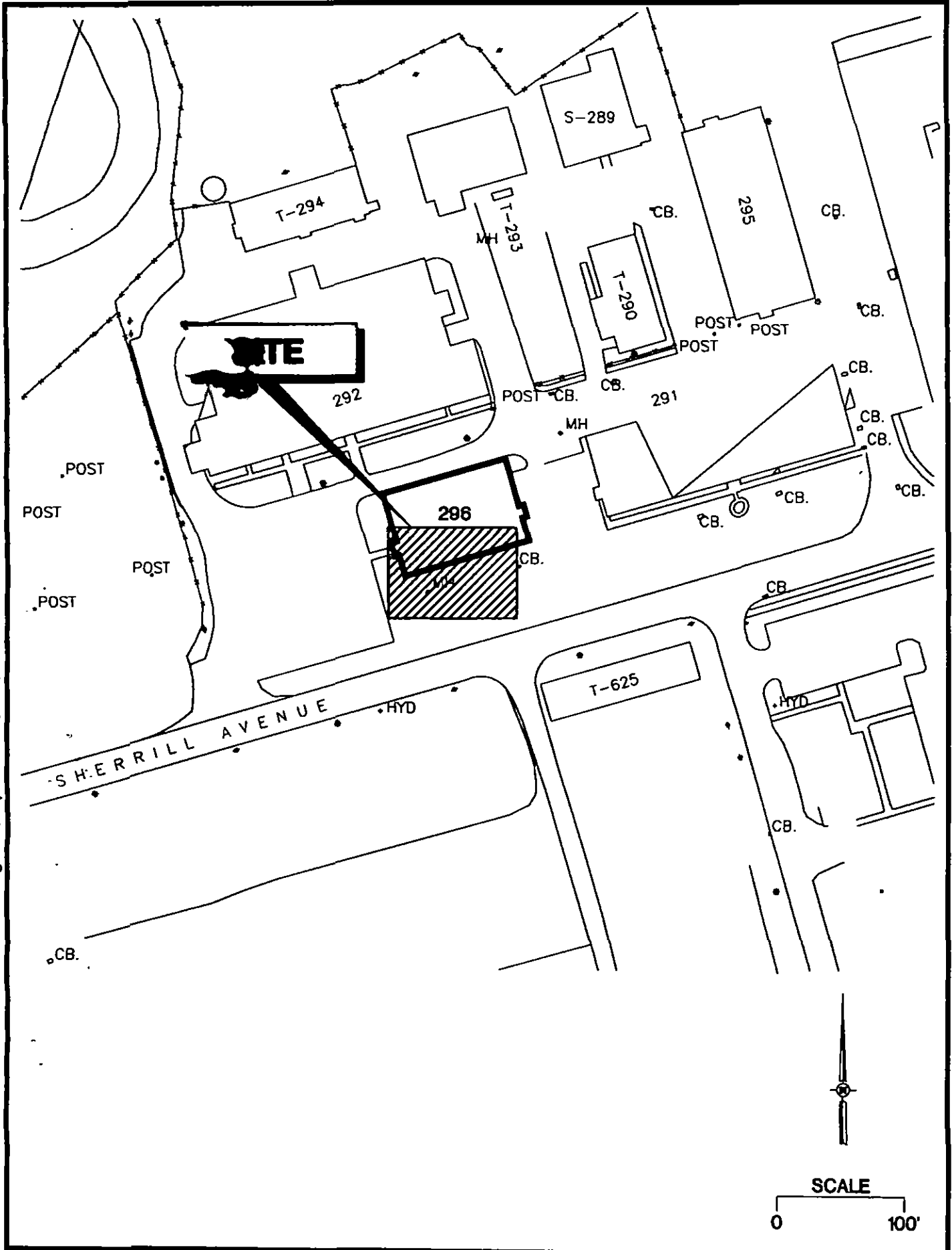
In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka, 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

Source: BCM/Smith Environmental Technologies Corporation (044)



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.

1.3 HEALTH AND SAFETY

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

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

- 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 10 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-1603207).

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. 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. All sites appeared to be clean except for possible contamination in sample area D (old piping trench), where OVA readings were over 200 parts per million (ppm).

Soil screening was also performed along the UST's new piping. No contamination was observed anywhere along the piping length.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported by CUTE Inc., to Mazza and Sons Inc. for disposal in compliance with all applicable regulations and laws. Refer to 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 visual observations, approximately 8 cubic yards of potentially contaminated soils were excavated from sample location D on November 16, 1993. All potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to the Main Post ID 27 Soil Staging Area (T-80) prior to ultimate disposal at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.



2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

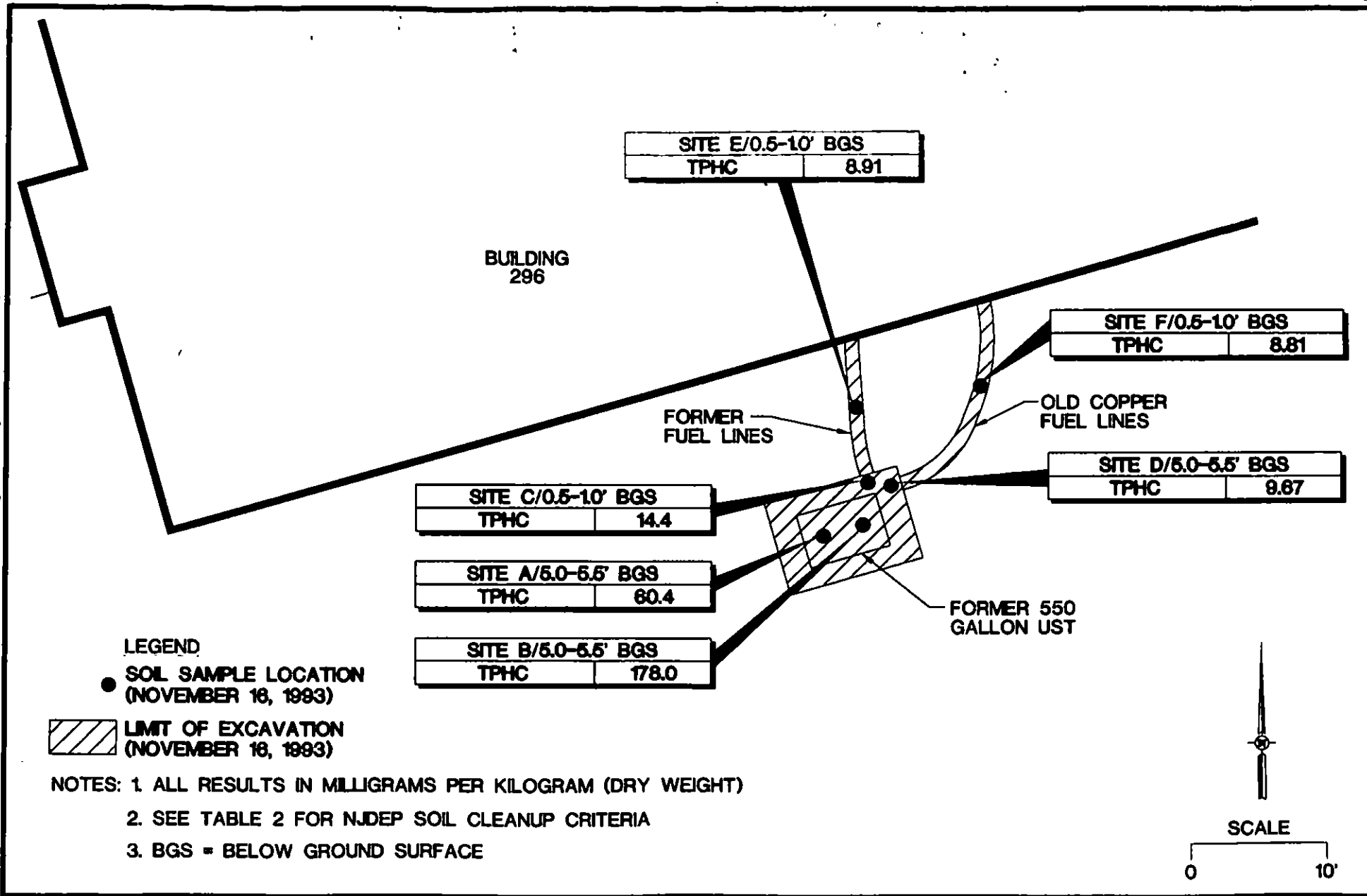
The Site Investigation was managed and carried out by U.S. Army DPW personnel. All analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory. All sampling was performed under the direct supervision of a NJDEP Certified Sub-Surface Evaluator 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: Charles M. Appleby
Employer: U.S. Army, Fort Monmouth
Phone Number: (908) 532-6224
NJDEP Certification No.: 002966
- 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. Soils were removed from the old piping trench (sample location D) until no evidence of contamination remained.



2.3 SOIL SAMPLING

On November 16, 1993, following removal of approximately 8 cubic yards of potentially contaminated soils, post-excavation soil samples A, B, C, D, E, and F were collected from a total of six (6) locations along the base of the UST excavation and piping trenches. Samples C, and E were collected from the new piping trench and samples D, and F were collected from the old piping trench. Refer to soil sampling location map on Figure 3. All samples were analyzed for TPHC. Because none of the soil samples exhibited a concentration exceeding 1,000 milligrams per kilograms (mg/kg), none were analyzed for volatile organic compounds with a forward library search for 10 tentatively identified compounds (VO+10).

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 on 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 356.0 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 296, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	11-16-93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
B	11-16-93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
C	11-16-93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D	11-16-93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
E	11-16-93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
F	11-16-93	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 November 16, 1993. 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 on Table 2 and the soil sampling results are shown on Figure 3. The analytical data package is provided in Appendix E. The full data package, including associated quality control data, is on file at the U.S. Army Fort Monmouth, DPW.

All post-excavation soil samples collected on November 16, 1993, from the UST excavation and from below piping associated with the UST contained concentrations of TPHC below the NJDEP soil cleanup criteria. Post-excavation samples A, B, C, D, E, and F contained TPHC concentrations ranging from 8.81 mg/kg to 178.0 mg/kg.

3.2 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 296 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 for total organic contaminants of 10,000 mg/kg do not remain 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. 081533-69 at Building 296.

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 296
 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/5.0-5.5'	1333.1	11/16/93	11/17/93	Total Solid	--	--	85 %	--	--
				TPHC	3.3	yes	60.4	10,000	--
B/5.0-5.5'	1333.2	11/16/93	11/17/93	Total Solid	--	--	88 %	--	--
				TPHC	3.3	yes	178.0	10,000	--
C/0.5-1.0'	1333.3	11/16/93	11/17/93	Total Solid	--	--	74 %	--	--
				TPHC	3.3	yes	14.4	10,000	--
D/5.0-5.5'	1333.4	11/16/93	11/17/93	Total Solid	--	--	82 %	--	--
				TPHC	3.3	yes	9.67	10,000	--
E/0.5-1.0'	1333.5	11/16/93	11/17/93	Total Solid	--	--	89 %	--	--
				TPHC	3.3	yes	8.91	10,000	--
F/0.5-1.0'	1333.6	11/16/93	11/17/93	Total Solid	--	--	90 %	--	--
				TPHC	3.3	yes	8.81	10,000	--

Notes:

- * Cleanup criteria for total organics
 -- Not applicable / does not exceed criteria
 TPHC Total Petroleum Hydrocarbons

Smith Environmental Technologies Corporation (Project No. 09-5004-07)

soil296.doc



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-93-3917

0081533

US Army
BLDG. 296
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 550 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. Welner -
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 USTs, 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 scaled 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. 296

081533-69
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 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-93-3917

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 X 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. 178.0 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 X No
2. Free product contaminated soils are suspected to exist below the water table Yes X No
3. Free product contaminated soils are suspected to exist off the property boundaries. Yes X No

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

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

F. A ground water contour map has been submitted which includes the ground water elevations for each well
☐ Yes ☐ No ☐ N/A

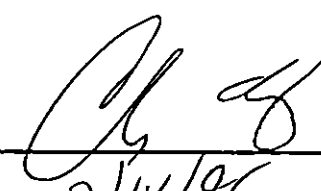
G. Delineation of contamination

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-8.3(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) Charles M. Appleby SIGNATURE 

COMPANY NAME U.S. Army, Fort Monmouth DATE 2/14/96
(Preparer of Site Assessment Plan)

CERTIFYING ORGANIZATION NJDEP CERTIFICATION NUMBER 2056

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."

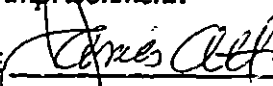
NAME (Print or Type) _____ SIGNATURE _____

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 

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 _____

GENERATOR CERTIFICATION

I hereby certify that the waste described on Hazardous Waste Manifest No. NTA-1603207 dated 11/17/93 is generated by one or more of the following processes and does not contain more than 2 ppm polychlorinated biphenyls (PCB's) and does not display any characteristic or contain any hazardous constituents other than for which waste oils are listed in New Jersey.

X721: Waste automotive crankcase and lubricating oils from automotive service and gasoline stations, truck terminals, and garages.

X722: Waste oil and bottom sludge generated from tank cleanouts from residential/commercial fuel oil tanks.

X723: Waste oil and bottom sludge generated by gasoline stations when gasoline and oil tanks are tested, cleaned or replaced.

X724: Waste petroleum oil generated when tank trucks or other vehicles or mobile vessels are cleaned, including, but not limited to, oil ballast water from product transport units of boats, barges, ships or other vessels.

X725: Oil spill cleanup residue which: A. is contaminated beyond saturation; or B. the generator fails to demonstrate that the spill material was not one of the listed hazardous waste oils.

X726: The following used and unused waste oils: metal working oils; turbine lubricating oils; diesel lubricating oils; and quenching oils.

X728: Bottom sludge generated from the processing, blending, and treatment of waste oil in waste oil processing facilities.

I am duly authorized to sign said certification.

Generator US ARMY COMMUNICATIONS ELECTRONICS COMMAND 40 JAM SHIRGH

Generator's EPA ID No. NT3210020597

Address FARMINGTON, N.J. / MAIN POST

Print Name Charles M. Appleby Signature Ch Appleby

Title Enviro Protection Specialist DPW

Date Nov. 17, 1993

SMITH

APPENDIX C
WASTE MANIFEST



FREEHOLD CARRIAGE INC.

MANIFEST

P.O. BOX 3010
FREEHOLD, NJ 07728-8010
PHONE: (808) 482-1001
FAX: (808) 306-0824

175 BARTON MUN. AIRPORT
BARTON, NJ 08530
PHONE: (610) 533-6500
FAX: (610) 533-6113

105 MORRISMAN BLVD.
DUNMORE, PA 15112
PHONE: (717) 345-7222
FAX: (717) 345-7357

FSB/EEB/DE/OC
NJ 08052-2616

G17451

STATE MANIFEST NO: 16030851603007

(X) HM	PROPER U.S. DOT SHIPPING NAME	U.S. DOT HAZARDOUS CLASS	PACKING GROUP	NAUN NO.	FORM	NET WT.	UNIT MEASURE
X 1	PETROLEUM OIL - N.O.S. (PET. OIL)	COMBUSTIBLE LIQUID	III	1270	L	543	G.
2							
3							

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (I.E., IDENTIFICATION SHIPMENT OF A NON-HAZARDOUS NATURE WHICH DOES NOT HAVE TO BE MANIFESTED).

NJDEPS# - 2265-55429

GENERATOR NAME/ADDRESS U.S. ARMY COMMUNICATIONS ELECTRONICS COMMAND FORT MONMOUTH, N.J. MAIN POST		PHONE 908 (AREA CODE) 533 - 6224	GENERATOR EPA ID NO. NJ136110021015917	
TRACTOR 438		TRAILER NA		TIME AT GENERATOR (MILITARY TIME ONLY) 0700 ARRIVAL TIME DEPARTURE TIME
FCI REP. LOADING (PRINT) ALFANZO TROUCHID	PROCEDURE VAC	BOX SPOTTED NA	BOX REMOVED NA	EQUIPMENT USED 1-VALWOM TRUCK
COMMENTS OR DELAYS AT GENERATOR #208 - 11/9/93 #209 - 11/8/93 #210 - 55615 #207: 396 11/16/93 684-A-3 606-A 600 3406 #296 81533-69 10 GAL A-100; B-132 96 GAL 11/5/93				
GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The wastes described above were consigned to the Transporter named. The Transporter, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that this foregoing is true and correct to the best of my knowledge. Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the generator is obligated to pay the agreed rate offered to the contractor.				
GENERATOR'S SIGNATURE X I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT.		PLEASE PRINT NAME/TITLE		DATE LOADED 11/17/93 MO. DAY YR.

TSDF NAME/ADDRESS LIONETTI OIL RECOVERY RUNYON + CHEESEBROOK OLD BRIDGE, N.J.		PHONE 908 (AREA CODE) 731 - 0900	TSDF EPA ID NO. NJ1002101441051	
TRACTOR 438		TRAILER NA		TIME AT TSDF (MILITARY TIME ONLY) ARRIVAL TIME DEPARTURE TIME
FCI REP. UNLOADING (PRINT)	PROCEDURE NA	BOX SPOTTED NA	BOX REMOVED NA	EQUIPMENT USED
COMMENTS OR DELAYS AT TSDF				
TSDF SIGNATURE X		PLEASE PRINT NAME/TITLE		DATE UNLOADED 11/17/93 MO. DAY YR.

AR H-0257 PC 944	ME ME-HWT-47 ME-WOT-47	MO H-1490 MD WH-429	NOVA SCOTIA, CANADA NSC 000 147 OH 333-HW	QUEBEC, CANADA QC-6ML-047 RI RI-535
CT CT-HW-307	MD HWT-167 91-OP-1765	NH TNH-0047	OK 3358	TX 40705
DE DE-HW-203 DE-SW-203	MA MA-294	NJ S-2265 15939	ONTARIO, CANADA A 840943 PA PA-AH-0067	WI 11602
IL SWH-1540	MN 61572	NY JA-113		

Original - FCI Office Copy
Yellow - FCI Office Copy
Blue - FCI Office Copy/ Customer
Green - Retained by TSDF

G17451



APPENDIX D

UST DISPOSAL CERTIFICATE

MAZZA & SONS, INC.

Metal Recyclers
Auto and Truck
3230 Shatto Rd.
Tinton Falls, NJ
(908) 922-9292

NO. _____

DATE 11 Nov 93

Customer's Name C. Te. Inc.

Address _____

Make of
Autos

Tires

ank

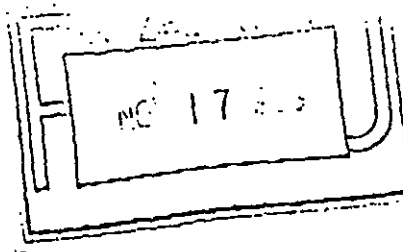
rice:

2910 #69

30500 LB 6

30960

4/60



Weight Price

Cast Iron

Steel

Lt. Iron

Copper #1

Copper #2

Lt. Copper

Brass

Alum Clean

Lead

Stainless

Radiators

Battery

TOTAL AMOUNT:

Weighter _____ 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
DEH, SELFM-EH-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1333.1-.6
Sample Rec'd: 11/16/93
Analysis Start: 11/17/93
Analysis Comp: 11/17/93

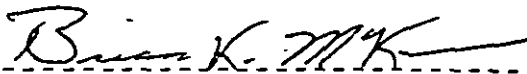
Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: Sonc.

NJDEPE UST Reg. #: 81533-69
TMS #:
NJDEPE Case #:
Location #: 296

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1333.1	Site A, 5 - 5.5' ova=ND	85	60.4	3.3
1333.2	Site B, 5 - 5.5' ova=ND *	88	178.	3.3
1333.3	Site C, 0.5 - 1' ova=ND	74	14.4	3.3
1333.4	Site D, 5 - 5.5' ova= 1.	82	9.67	3.3
1333.5	Site E, 0.5 - 1' ova=ND	89	8.91	3.3
1333.6	Site F, 0.5 - 1' ova=ND	90	8.81	3.3
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added

1333.1 Dup.= 97% 1333.1 Spike=88%, 1333.1 Spike Dup.=87%, RPD=99%



Brian K. McKee
Laboratory Director



SERV-AIR, INC.

An E-SYSTEMS Company

P.O. #: PWS-007

Chain of Custody

Project #: 093-3917		Sampler: Cate Inc.		Date / Time: 11/16/93 1315		Analysis Parameters		Start:	
Customer: C. Appleby DPW		Site Name: Bldg. 296						Finish:	
Phone: X 26224		Tms # - 81533-69 093-3917						Preservation Method	
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% Solids	Monitored		Remarks
	11/16/93 1450	Site A - 5-5.5'	Soil	1	X	X	X		ND
	1448	Site B - 5-5.5'	↓	1	X	X	X		ND
	1456	Site C - .5-1'	↓	1	X	X	X		ND
	1530	Site D - 5-5.5'	↓	1	X	X	X		1.0 Sample kept 24°C.
	1500	Site E - .5-1'	↓	1	X	X	X		ND
	1525	Site F - .5-1'	↓	1	X	X	X		10.0
					DVA-SN - 1952114				
					Calibrated to 95 PPM				
					methane 1320 hrs 11/16/93				
					CA - Road - 102 PPM				
					- OK -				
Relinquished By (signature)		Date / Time		Received By (signature)		Shipped By:		Babynal - 2 PPM - 4/20/94	
Relinquished By (signature)		Date / Time		Received for Lab by (signature):		Date / Time			
		11/16/93 1545		B. M. K.					

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

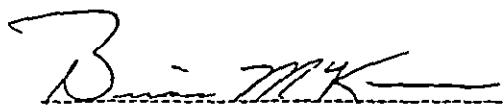
Report of Analysis
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEPE Certification # 13461

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

Lab. ID #: 1333.1-.6
Sample Rec'd: 11/16/93
Analysis Start: 11/17/93
Analysis Comp: 11/17/93

Analysis: Munsel

Lab ID#	Soil Color
1333.1	2.5Y 4/1 Dark Gray
1333.2	2.5Y 4/1 Dark Gray
1333.3	2.5Y 3/3 Dark Olive Brown
1333.4	2.5Y 3/3 Dark Olive Brown
1333.5	2.5Y 4/4 Olive Brown
1333.6	2.5Y 4/4 Olive Brown



Brian K. McKee
Laboratory Director

11/19/93 3:42 PM

November 17, 1993

1205

Sarah J. Hubbard

Blank 0 MV

33.75 81 MV

67.5 167

155 332 MV

Bldg 801

1332.1 Rile 167 268 MV

1332.2 25 MV

1332.3 33 MV

Bldg 296

1333.1 36 MV

1333.1 DWP 35 MV

1333.1 Spk 118

1333.1 Spk DWP 117 MV

1333.2 114 MV

1333.3 6 MV

1333.4 4 MV

1333.5 4 MV

1333.6 4 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.

N/A

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
Brian K. McKee
Laboratory Manager

Bldg. 296 Soil Anal
11/23/93

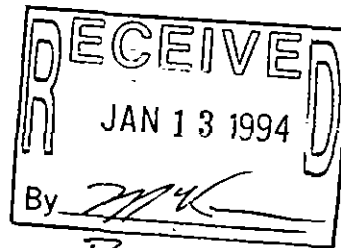


COPY

618 HERON DRIVE, P.O. BOX 489 • BRIDGEPORT, NJ 08014-0489 • 609-467-9521

E-SYSTEMS

PROJECT: U.S. ARMY-FORT MONMOUTH, NJ BLDG 296



Reviewed

DATE RECEIVED: NOVEMBER 24, 1993

REPORT NO: A 5418 - A 5441

TWENTY FIRST CENTURY
ENVIRONMENTAL, INC.

Richard W. Lynch
RICHARD W. LYNCH
LABORATORY MANAGER

METAL ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

No Yes

1. Calibration Summary Meet Criteria N/A
2. ICP Interference Check Sample Results Summary Submitted
(if applicable) / Meet Criteria. N/A
3. Serial Dilution Summary Submitted
(if applicable) / Meet Criteria. N/A
4. Laboratory Control Sample Summary Submitted
(if applicable) / Meet Criteria. N/A
5. Blank Contamination - If yes, list compounds and concentrations
in each blank:

None

6. Matrix Spike/ Matrix Spike Duplicate Recoveries Meet Criteria ✓
(If not met, list those compounds and their recoveries
which fall outside the acceptable range)

7. Extraction Holding Time Met ✓

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

8. Analysis Holding Time Met ✓

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

Additional Comments: _____

Laboratory Manager: Brian M. K.

Date: 1-14-97

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)	___	___ ☒
2. GC/MS Tune Specifications		
a. BFB Meet Criteria	___	___ ☒
b. DFTPP Meet Criteria	___	___ ☒
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.	___	___ ☒
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	___	___ ☒
5. GC/MS Calibration Requirements		
a. Calibration Check Compounds	___	___ ☒
b. System Performance Check Compounds	___	___ ☒
6. Blank Contamination - If yes, list compounds and concentrations in each blank:		
a. VOA Fraction	___	___ <u>None</u>
b. B/N Fraction	___	___
c. Acid Fraction	___	___
7. Surrogate Recoveries Meet Criteria	___	___ ☒
If not met, list those compounds and their recoveries which fall outside the acceptable range:		
a. VOA Fraction	___	___
b. B/N Fraction	___	___
c. Acid Fraction	___	___
If not met, were the calculations checked and the results qualified as "estimated"?		
	___	___ ☒
8. Matrix Spike/ Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)	___	___ ☒
a. VOA Fraction	___	___
b. B/N Fraction	___	___
c. Acid Fraction	___	___
9. Internal Standard Area/Retention Time Shift Meet Criteria	___	___ ☒

TABLE OF CONTENTS

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Quality Control Data	00158

NARRATIVE

There were no problems encountered during the analysis of this batch of samples (A5418 to A5441). All extractions and analysis were completed within proper hold times.

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

No Yes

10. Extraction Holding Time Met

___ ✓

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

11. Analysis Holding Time Met

___ ✓

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

Additional Comments: _____

Laboratory Manager:

Brian M. K.

Date:

1-14-94



SERV-AIR, INC.

An E-SYSTEMS Company

ASH18-41

P.O. #: 21st Century / PWS-007

Chain of Custody

Project #: <i>Bldg 296</i>		Sampler: <i>Cate Inc. George R.</i>		Date / Time: <i>11/23/93 1400hrs</i>		Analysis Parameters		Start:			
Customer: <i>C. Appleby DPW</i>		Site Name: <i>Bldg. 296</i>						Finish:			
Phone: <i>X 26224</i>		Pipe Run. Continued. <i>WT# 81533-213-223</i>						Preservation Method			
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	THC	% Solids	Munsell	WPA +15	76	OVA	Remarks
<i>1340.1</i>	<i>11/23/93 1405</i>	<i>BA - 2.5-3'</i>	<i>Soil</i>	<i>2</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>4.0</i>	
<i>2</i>	<i>1430</i>	<i>BB - 2.5-3'</i>								<i>100.0</i>	
<i>3</i>	<i>1433</i>	<i>BC - 2.5-3'</i>								<i>ND</i>	
<i>4</i>	<i>1437</i>	<i>BD - 2.5-3'</i>								<i>1.0</i>	
<i>5</i>	<i>1440</i>	<i>BE - 2.5-3'</i>								<i>2.0</i>	
<i>6</i>	<i>1445</i>	<i>BF - 2.5-3'</i>								<i>5.0</i>	
<i>7</i>	<i>1449</i>	<i>BG - 2.5-3'</i>								<i>100.0</i>	<i>OVA. Calibrated to 75 ppm</i>
<i>8</i>	<i>1453</i>	<i>RH - 2.5-3'</i>								<i>>100.0</i>	<i>methane @ 1400 hrs @ 100 ppm</i>
<i>9</i>	<i>1457</i>	<i>BI - 2.5-3'</i>								<i>7000</i>	<i>Reading OK CA. meth. #</i>
<i>10</i>	<i>1500</i>	<i>BJ - 2.5-3'</i>								<i>20.0</i>	<i>5 in P52114</i>
<i>11</i>	<i>1505</i>	<i>BK - 2.5-3'</i>								<i>10.0</i>	
Relinquished By (signature)		Date / Time		Received By (signature)		Shipped By:					
<i>[Signature]</i>		<i>11/23/93 1605</i>		<i>[Signature]</i>		<i>[Signature]</i>					
Relinquished By (signature)		Date / Time		Received for Lab by (signature):				Date / Time			
<i>[Signature]</i>		<i>11/23/93 1605</i>		<i>[Signature]</i>				<i>11/23/93 1610</i>			
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.											
<i>[Signature]</i> <i>11/24/93 1100</i>											



SERV-AIR, INC.

An E-SYSTEMS Company

P.O. #: 21st Century / PWS-007

Chain of Custody

Project #: Bldg. 296		Sampler: Cite Inc. George B.		Date / Time: 11/23/93 1400hrs		Analysis Parameters		Start:	
Customer: C. Arnoldy DSW		Site Name: Bldg. 296						Finish:	
Phone: 426224		Pipe Run Continued						Preservation Method	
Lab Sample ID Number		Customer Sample Location / ID Number		Sample Matrix		# of Bottles		Remarks	
1340.12		BL 2.5-3'		Soil		2			
13		BM 2.5-3'						ND	
14		BN 2.5-3'						ND	
15		BO 2.5-3'						ND	
16		BP 2.5-3'						ND	
17		BR 2.5-3'						ND	
18		BS 2-2.5'						ND	
19		BT 2-2.5'						ND	
20		BU 2-2.5'						ND	
21		BV 2-2.5'						ND	
22									

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	11/23/93 1605	Sarah J. Hubbard	

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	11/23/93 1610		

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



P.O. #:

Chain of Custody

Project #: Bldg 269		Sampler: Cote Inc. George B.		Date / Time: 11/23/93 11400		Analysis Parameters						Start:	
Customer: C. Appley D&W		Site Name:				100x15 76						Finish:	
Phone: 206224												Preservation Method	
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles									Remarks
1340-23	"	TRIP Blank	AQ	4		X							
✓ 24	11/23/93 1540	FIELD Blank	AQ	2		X	X						
Relinquished By (signature)		Date / Time		Received By (signature)		Shipped By:							
Relinquished By (signature)		Date / Time		Received for Lab by (signature):		Date / Time							
		11/23/93 1605				11/23/93 1610							
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.													

Purgeables

U.S.E.P.A. Method 624 - This is a purge and trap Gas Chromatograph/Mass Spectrometer (GC/MS) method applicable to the determination of the compounds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

An HP5996 GC/MS was used with a capillary column.

Method detection limits are as stated.

Soil samples are prepared for analysis as prescribed in Method 8240/8260 from SW-846.

Metals

Soil samples for metal analysis were run in accordance with the methods prescribed in SW-846. This includes a nitric acid digestion followed by either Furnace, Flame Atomic Absorption, Flameless Atomic Absorption, or Inductively Coupled Plasma analysis.

Aqueous samples for metals analysis were run in accordance with the methods prescribed in Methods for Chemical Analysis of Water and Wastes, EPA-600-4-79-020 March 1983.

LABORATORY CHRONICLE

RECEIPT/REFRIGERATION _____

11/24/93

ORGANICS
EXTRACTION

- | | | |
|--|-------|----|
| 1. Acids | _____ | NA |
| 2. Base/Neutrals | _____ | NA |
| 3. Pesticides/PCB's/Herbicides | _____ | NA |
| 4. Petroleum Hydrocarbons/Oil & Grease | _____ | NA |

ANALYSIS

- | | | |
|--|-------|------------------|
| 1. Volatiles | _____ | 11/29/93-12/1/93 |
| 2. Acids | _____ | NA |
| 3. Base/Neutrals | _____ | NA |
| 4. Pesticides/PCB's/Herbicides | _____ | NA |
| 5. Petroleum Hydrocarbons/Oil & Grease | _____ | NA |
| 6. Total Organic Carbon | _____ | NA |

Section Supervisor
Review & Approval _____

Jeffrey L. Martin

INORGANICS

- | | | |
|-------------|-------|----------|
| 1. Metals | _____ | 11/30/93 |
| 2. Cyanides | _____ | NA |
| 3. Phenols | _____ | NA |

OTHER ANALYTES

Section Supervisor
Review & Approval _____

James Matthews

Quality Control Supervisor
Review & Approval _____

Jim Allen

Laboratory Director
Review & Approval _____

Richard W. Pender

If fractions are re-extracted and re-analyzed because initial endeavors did not meet quality control acceptance criteria, include dates for both.

RESULT SUMMARY

SAMPLE IDENTIFICATION AND LOCATION

ANALYSIS NO:

CLIENT ID:

A 5418	1340.1
A 5419	1340.2
A 5420	1340.3
A 5421	1340.4
A 5422	1340.5
A 5423	1340.6
A 5424	1340.7
A 5425	1340.8
A 5426	1340.9
A 5427	1340.10
A 5428	1340.11
A 5429	1340.12
A 5430	1340.13
A 5431	1340.14
A 5432	1340.15
A 5433	1340.16
A 5434	1340.17
A 5435	1340.18
A 5436	1340.19
A 5437	1340.20
A 5438	1340.21
A 5439	1340.22
A 5440	1340.23
A 5441	1340.24

CERTIFICATE OF ANALYSIS

U.S. ARMY-FORT MONMOUTH, NJ BLDG 296

LEAD

<u>ANALYSIS NO:</u>	<u>CLIENT ID:</u>	<u>MDL (mg/Kg)</u>	<u>RESULT (mg/Kg)</u>
A 5418	1340.1	10.0	20.5
A 5419	1340.2	10.0	N.D.
A 5420	1340.3	10.0	16.4
A 5421	1340.4	10.0	30.2
A 5422	1340.5	10.0	21.2
A 5423	1340.6	10.0	N.D.
A 5424	1340.7	10.0	21.4
A 5425	1340.8	10.0	27.4
A 5426	1340.9	10.0	15.3
A 5427	1340.10	10.0	15.7
A 5428	1340.11	10.0	20.5
A 5429	1340.12	10.0	N.D.
A 5430	1340.13	10.0	N.D.
A 5431	1340.14	10.0	20.1
A 5432	1340.15	10.0	22.8
A 5433	1340.16	10.0	108
A 5434	1340.17	10.0	25
A 5435	1340.18	10.0	26.2
A 5436	1340.19	10.0	22.8
A 5437	1340.20	10.0	34.4
A 5438	1340.21	10.0	N.D.
A 5439	1340.22	10.0	57

CERTIFICATE OF ANALYSIS

U.S. ARMY-FORT MONMOUTH, NJ BLDG 296

LEAD

<u>ANALYSIS NO:</u>	<u>CLIENT ID:</u>	<u>MDL (mg/L)</u>	<u>RESULT (mg/L)</u>
A 5441	1340.24	.05	N.D.

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER US ARMY FT. MONMOUTH NJ
SAMPLE NUMBER A5418
CLIENT ID BA 2.5'-3' BLDG 296
DATA FILE >B2201

MATRIX Soil
DILUTION FACTOR 5.00
COMMENTS HNU 4.0
DATE ANALYZED 11/30/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	280	Bromodichloromethane	ND	28
Acrylonitrile	ND	280	2-Chloroethylvinylether	ND	57
Chloromethane	ND	57	2-Hexanone	ND	57
Bromomethane	ND	57	trans-1,3-Dichloropropene	ND	28
Vinyl Chloride	ND	57	Toluene	ND	28
Chloroethane	ND	57	cis-1,3-Dichloropropene	ND	28
Acetone	95	57	1,1,2,2-Tetrachloroethane	ND	28
1,1-Dichloroethene	ND	28	1,1,2-Trichloroethane	ND	28
Carbon Disulfide	ND	57	4-Methyl-2-pentanone	ND	57
Methylene Chloride	8.0 J	28	Tetrachloroethene	ND	28
1,2-Dichloroethene(trans)	ND	28	Dibromochloromethane	ND	28
1,1-Dichloroethane	ND	28	Chlorobenzene	ND	28
Vinyl Acetate	ND	28	Ethylbenzene	ND	28
2-Butanone	13 J	57	m,p-Xylenes	130	28
Chloroform	ND	28	o-Xylene	240	28
1,1,1-Trichloroethane	ND	28	Styrene	ND	28
Carbon Tetrachloride	ND	28	Bromoform	ND	28
1,2-Dichloroethane	ND	28	m-Dichlorobenzene	ND	28
Benzene	ND	28	p-Dichlorobenzene	ND	28
Trichloroethene	ND	28	o-Dichlorobenzene	ND	28
1,2-Dichloropropane	ND	28			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.3	70 - 121	OK
Toluene-d8	103	81 - 117	OK
Bromofluorobenzene	100	74 - 121	OK

Percent Solid of 88.0 is used for all Target compounds.

- (J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NUMBER

BA 2.5'-3'

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 296

Matrix: (soil/water) SOIL

Lab Sample ID: A5418

Sample wt/vol: 1 (g/mL) g

Lab File ID: B2201

Level: LOW

Date Received: 11/24/93

% Moisture: 12

Date Analyzed 11/30/93

Column: CAP

Dilution Factor: 5

Number TICs Found 20

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

CAS NUMBER	COMPOUND NAME	RT	TEST CONC
1 611143	Benzene, 1-ethyl-2-methyl- (9CI)	15.14	400
2 95636	Benzene, 1,2,4-trimethyl- (8CI9CI)	15.30	230
3 622968	Benzene, 1-ethyl-4-methyl- (9CI)	15.66	130
4 620144	Benzene, 1-ethyl-3-methyl- (9CI)	15.98	430
5 98828	Benzene, (1-methylethyl)- (9CI)	16.75	160
6 611154	Benzene, 1-ethenyl-2-methyl- (9CI)	17.11	240
7 535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	17.28	190
8 1120214	Undecane (8CI9CI)	17.51	52
9 1074551	Benzene, 1-methyl-4-propyl- (9CI)	17.62	41
10 933982	Benzene, 1-ethyl-2,3-dimethyl- (9CI)	17.80	80
11 535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	17.98	150
12 767588	1H-Indene, 2,3-dihydro-1-methyl- (9CI)	18.18	90
13 488233	Benzene, 1,2,3,4-tetramethyl- (8CI9CI)	18.71	67
14 527537	Benzene, 1,2,3,5-tetramethyl- (8CI9CI)	18.81	110
15 767588	1H-Indene, 2,3-dihydro-1-methyl- (9CI)	19.30	110
16 824226	1H-Indene, 2,3-dihydro-4-methyl- (9CI)	19.60	220
17 615134	2H-Inden-2-one, 1,3-dihydro- (9CI)	19.91	41
18 4132723	Benzene, 1,4-dimethyl-2-(1-methylethyl)- (9CI)	20.30	41
19 17057828	1H-Indene, 2,3-dihydro-1,2-dimethyl- (9CI)	20.49	39
20 91203	Naphthalene (ACN)(DOT)(8CI9CI)	20.77	51

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A5419	DILUTION FACTOR	1.00
CLIENT ID	BB 2.5'-3' BLDG 296	COMMENTS	HNU 100
DATA FILE	B2202	DATE ANALYZED	11/30/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	56	Bromodichloromethane	ND	6
Acrylonitrile	ND	56	2-Chloroethylvinylether	ND	11
Chloromethane	ND	11	2-Hexanone	ND	11
Bromomethane	ND	11	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	11	Toluene	ND	6
Chloroethane	ND	11	cis-1,3-Dichloropropene	ND	6
Acetone	140	11	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	2.0 J	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	15	11	m,p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	70 - 121	OK
Toluene-d8	99.1	81 - 117	OK
Bromofluorobenzene	96.7	74 - 121	OK

Percent Solid of 90.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BB 2.5'-3'

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 296

Matrix: (soil/water) SOIL

Lab Sample ID: A5419

Sample wt/vol: 5 (g/mL) g

Lab File ID: >B2202

Level: (low/med) LOW

Date Received: 11/24/93

% Moisture: 10

Date Analyzed: 11/30/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
	No Unknowns			

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10014

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	<u>US ARMY FT. MONMOUTH NJ</u>	MATRIX	<u>Soil</u>
SAMPLE NUMBER	<u>A5420</u>	DILUTION FACTOR	<u>1.00</u>
CLIENT ID	<u>BC 2.5'-3' BLDG 296</u>	COMMENTS	<u>HMU ND</u>
DATA FILE	<u>>B2185</u>	DATE ANALYZED	<u>11/29/93</u>

COMPOUND	US/KG	MDL	COMPOUND	US/KG	MDL
Acrolein	ND	63	Bromodichloromethane	ND	6
Acrylonitrile	ND	63	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	13	Toluene	ND	6
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	6
Acetone	34	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	2.0 J	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	6.6 J	13	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

<u>SURROGATE COMPOUNDS</u>	<u>% RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	88.0	70 - 121	OK
Toluene-d8	95.3	81 - 117	OK
Bromofluorobenzene	93.7	74 - 121	OK

Percent Solid of 79.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BC 2.5'-3'

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 296

Matrix: (soil/water) SOIL

Lab Sample ID: A5420

Sample wt/vol: 5 (g/mL) g

Lab File ID: >B2185

Level: (low/med) LOW

Date Received: 11/24/93

% Moisture: 21

Date Analyzed: 11/29/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
	No Unknowns			

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A5421	DILUTION FACTOR	1.00
CLIENT ID	BD 2,5'-3' BLDG 296	COMMENTS	HMU 1.0
DATA FILE	>B2203	DATE ANALYZED	11/30/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	63	Bromodichloromethane	ND	6
Acrylonitrile	ND	63	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	13	Toluene	ND	6
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	6
Acetone	52	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	2.0 J	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	9.8 J	13	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	90.0	70 - 121	OK
Toluene-d8	98.5	81 - 117	OK
Bromofluorobenzene	92.8	74 - 121	OK

Percent Solid of 79.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BD 2.5'-3'

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 296

Matrix: (soil/water) SOIL

Lab Sample ID: A5421

Sample wt/vol: 5 (g/mL) g

Lab File ID: >B2203

Level: (low/med) LOW

Date Received: 11/24/93

% Moisture: 21

Date Analyzed: 11/30/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
	No Unknowns			

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BE 2.5'-3'

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 296

Matrix: (soil/water) SOIL

Lab Sample ID: A5422

Sample wt/vol: 5 (g/mL) g

Lab File ID: >B2187

Level: (low/med) LOW

Date Received: 11/24/93

% Moisture: 15

Date Analyzed: 11/29/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
	No Unknowns			

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