

FINAL
UNDERGROUND STORAGE TANK REMOVAL
AND SITE ASSESSMENT REPORT

EVANS AREA, FORT MONMOUTH
WALL TOWNSHIP, NEW JERSEY
(VOLUME 3 OF 3)

Submitted to:



Directorate of Public Works, Fort Monmouth
and the
U.S. Army Materiel Command
Environmental Compliance Services
Contract No. DAAA08-94-D0007
Delivery Order No. 00069

Submitted by:



Tetra Tech EM Inc.

December 2000

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

*Building 9100
Camp Evans Area*

NJDEP UST Registration No. 90029-31

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EXECUTIVE SUMMARY

UST Closure

On December 8, 1997, a steel underground storage tank (UST) was closed by removal at the Camp Evans area of the U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 90029-31 (Fort Monmouth Identification No. 9100), was located south of Building 9100 in the Camp Evans area of Fort Monmouth. The UST was a 1,000-gallon No. 2 fuel oil tank. The UST fill port was located directly above the center of the tank.

Site Assessment

The site assessment was performed by Tetra Tech EM Inc. (Tetra Tech) and SMC Environmental Services Group (SMC). No holes were noted in the UST and the only evidence of potentially contaminated soil was observed surrounding the fill port. Samples collected at the time the UST was removed contained non-detectable concentrations of total petroleum hydrocarbons (TPHC). The total amount of soil removed from the excavation was 10 cubic yards.

Site Restoration

After receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with clean native soil from the Building 9100 area, as well as clean soil imported from the New Jersey Sand and Gravel Company. The excavation site was then restored to its original condition.

Conclusions and Recommendations

Based on post-excavation soil sampling results, TPHC concentrations in soil do not exceed the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent soil cleanup criteria of 1,000 mg/kg TPHC used by Fort Monmouth, at the former location of the UST or associated piping. No further action is proposed with regard to the closure and site assessment of UST No. 90029-31 at Building 9100.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 90029-31, was closed at Building 9100 at the Camp Evans area of U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey on December 8, 1997. The UST was a steel 1,000-gallon tank containing No. 2 fuel oil.

The UST removal was performed in accordance with the Fort Monmouth UST Management Plan (S.O.P. Number 19), which had previously been approved by the NJDEP. The signed site assessment summary form for UST No. 90029-31 is included in Appendix A.

Based on an inspection of the UST, field screening of subsurface soil, and soil sample analytical results, Tetra Tech has concluded that no significant historical discharges are associated with UST No. 90029-31 or associated piping.

This report was prepared based on information collected at the time of UST closure. Section 1 of this UST closure and site investigation report provides a site description and summarizes UST removal activities. Section 2 describes site investigation activities, including field screening and soil sampling. Section 3 presents the post-excavation soil sampling results. Conclusions and recommendations are presented in Section 4 of this report.

1.1 SITE DESCRIPTION

Building 9100 is located in the main section of the Camp Evans area of the Fort Monmouth Army Base (adjacent to Building 9039) as shown in Figure 1. UST No. 90029-31 was located south of Building 9100 and associated piping ran approximately 7 feet north from the UST to Building 9100. The UST fill port area was located directly above the center of the tank. A site map is provided in Figure 1 showing the location of the UST removal relative to Building 9100.

1.2 UNDERGROUND STORAGE TANK EXCAVATION AND CLEANING

Prior to UST decommissioning activities, surficial soil was excavated to expose the UST and associated piping. All free product present in the piping was purged with compressed air into the UST. The UST was not purged prior to the removal of the piping because of the low volatility of No. 2 fuel oil. After the removal of associated piping, soil excavation continued to uncover the UST. Once the UST was uncovered, SMC cut open the tank with a nonsparking pneumatic cutter and the remaining contents of the tank were removed with drum vacuum equipment. SMC completed cleaning the UST by wiping the interior out with oil absorbent pads.

After the UST was cleaned, it was removed from the excavation, staged on polyethylene sheeting, and examined for holes. No holes or punctures were observed by the Tetra Tech subsurface evaluator. Appendix B provides photographs of the tank. Soil around the UST was screened visually and with a photoionization detector (PID) and flame ionization detector (FID) for contamination. No evidence of contamination was observed or detected by the PID/FID except for soil located adjacent to the UST fill port. Visual and PID/FID soil screening was also performed along piping associated with the UST. No contamination was noted anywhere along the piping length.

The sludges and residues removed from the UST were transported by Lorco Petroleum Company to its NJDEP-approved petroleum recycling and disposal facility in Old Bridge, New Jersey. Appendix E provides a copy of the waste manifest for the off-site transport of the tank contents.

1.3 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The cleaned tank was transported to Mazza and Sons Inc., in Tinton Falls, New Jersey for disposal in compliance with all applicable regulations and laws. Appendix D provides a copy of the UST Disposal Certificate. Prior to transport, the UST was labeled with the following information:

- Site of origin
- Contact person
- NJDEP UST facility identification number
- Name of transporter and contact person
- Destination site and contact person

1.4 MANAGEMENT OF EXCAVATED SOILS

Post-excavation soil sampling locations are shown in Figure 2 and discussed in Section 2.2. Based on PID/FID air monitoring results and total petroleum hydrocarbon (TPHC) results from post-excavation soil samples, soil adjacent to the UST fill port was contaminated. This soil was removed to the staging area for disposal off site at a later date and the clean excavated soil and imported clean fill were used to backfill the UST excavation.

2.0 SITE INVESTIGATION ACTIVITIES

In accordance with NJDEP's "Technical Requirements for Site Remediation" and "Field Sampling Procedures Manual," Tetra Tech and SMC personnel conducted the site assessment. The site investigation was managed by Tetra Tech and performed by SMC. All analyses were performed and results reported by the U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory operated by TECOM-Vinnell Services, Inc. (TVS). All sampling was performed under the direct supervision of a NJDEP certified subsurface evaluator in accordance with methods described in NJDEP's "Field Sampling Procedures Manual" dated 1992. Sampling frequency and parameters analyzed complied with applicable regulations at the date of UST closure specified in NJDEP-BUST's document "Interim Closure Requirements for Underground Storage Tank Systems" dated October 1990; revisions dated November 1, 1991. All records of site investigation activities are maintained by Tetra Tech and the Fort Monmouth Department of Public Works (DPW) Environmental Office.

The following parties participated in UST closure and site investigation activities:

- Subsurface Evaluator: Kevin J. Phelan
Employer: Tetra Tech EM Inc.
Telephone No.: (973) 983-0507
NJDEP Certification No.: 0018436
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Telephone No.: (732) 532-4359
NJDEP Company Certification No.: 13461

- Hazardous Waste Hauler: Lorco Petroleum Company
Contact Person: Dan MacKay
Telephone No.: (732) 721-0900
NJDEP Hazardous Waste Hauler No.: S6247

2.1 FIELD SCREENING/MONITORING

Visual screening and field screening using a PID/FID were performed by a NJDEP certified subsurface evaluator to identify potentially contaminated material. Soil excavated from around the UST and associated piping, as well as the UST excavation sidewalls and bottom, did not exhibit any evidence of potential contamination at the time of the UST removal; however, soil adjacent to the UST fill port did exhibit indications of contamination and was transported to the soil staging area.

2.2 SOIL SAMPLING

On December 8, 1997, after UST removal, post-excavation soil samples 9100B1, 9100B2 (Duplicate of 9100B1), 9100B3, 9100E, 9100S, 9100W, 9100N, and 9100RF/VL were collected from seven locations in the UST excavation. Figure 2 presents the sampling locations. Excavation sidewall samples were collected at the edge of the former UST location, and bottom samples were collected from 0 to 6-inches beneath the former UST location, or 7.5 to 8-feet below ground surface (bgs). The sidewall samples were collected from 7 to 7.5-feet bgs. Sample 9100RF/VL was collected from next to the concrete sidewalk surrounding Building 9100 along the former return/feed line piping length of the excavation, which was approximately 7 feet long. Sample 9100RF/VL was collected from 1 to 1.5-feet bgs. In addition, on December 9, 1997, samples 9100OBS1 and 9100OBS2 were collected from the overburden soil piles to verify that the piles were not contaminated and could be used as clean backfill for the excavation. All samples were analyzed for TPHC and total solids.

Post-excavation soil samples were collected in accordance with standard sampling procedures specified in NJDEP's Field Sampling Procedures Manual" dated 1992. Samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory in Fort Monmouth, New Jersey, for analysis. A summary of post-excavation sampling activities, including parameters analyzed for, is provided in Table 1.

3.0 SOIL SAMPLING RESULTS

To evaluate soil conditions after removal of the UST and associated piping, post-excavation soil samples were collected from seven locations on December 8, 1997. All samples were analyzed for TPHC and total solids. Post-excavation sampling results were compared to the NJDEP residential direct contact soil cleanup criterion of 10,000 mg/kg for total organic contaminants (N.J.A.C. 7:26D and revisions dated February 3, 1994) and the more stringent soil cleanup criterion of 1,000 mg/kg TPHC used by Fort Monmouth. A summary of the analytical results and comparison to the NJDEP soil cleanup criterion is provided in Table 2. Soil sampling locations are shown in Figure 2. The analytical data package is provided in Appendix C.

All of the post-excavation soil samples collected on December 8, 1997, from the UST excavation, from below piping associated with the UST, and from the overburden soil piles contained non-detectable concentrations of TPHC.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results for all post-excavation soil samples for soil remaining in the UST excavation at Building 9100 were below the NJDEP soil cleanup criterion for required VOC analysis.

Based on post-excavation sampling results, soil containing TPHC concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent Fort Monmouth soil cleanup criterion of 1,000 mg/kg TPHC, do not exist in the former location of the UST or associated piping; therefore, no further action is proposed with regard to the closure and site assessment of UST No. 90029-31 at Building 9100.

Legend of Sample Identifications
Camp Evans Area
Wall Township, New Jersey

B	Sample from the bottom of the excavation
W	Samples from the west sidewall of the excavation
E	Samples from the east sidewall of the excavation
N	Samples from the north sidewall of the excavation
S	Samples from the south sidewall of the excavation
RF	Sample from beneath the former location of the return/feed lines of the UST
VL	Sample from beneath the former location of the vent line to the UST
OBS	Sample from the overburden soil pile of a UST excavation to determine if the soil can be used as backfill or must be transported to the contaminated soil stockpile
N21	Sample collected from the north sidewall on the second day of sampling (from a particular UST excavation) first sample (from that particular sidewall or area of the excavation) (NOTE: The "21" designation can be used with any of the letter combinations listed above).
FPS	Soil located directly adjacent to the fill port of the tank ("Fill Port Soil").
BFP	Soil located beneath the fill port of the tank ("Beneath Fill Port")
9116CSP	Contaminated soil pile from the UST-9116 excavation
DS	Deep Sample
9196BE1A	Geoprobe boring performed on the east side of the UST-9196 excavation to investigate contamination from the leaking UST. Last number denotes the boring number and last letter indicates which sample in the sequence.
RFL/B6	Sample from remedial excavation of a leaking remote fill line/what area of the excavation the sample was collected.
RF(CT)	Samples was collected from return feed lines consisting of copper tubing.
RFL(2)	Samples collected from a second remote fill line for a particular UST excavation
RB1	Remedial excavation for a particular building. The second letter and number designate the particular area of the excavation where the sample was collected
CNFRM	Confirmatory sample to confirm that contamination has been removed
CNFM	Another designation for a confirmatory sample
R/F/VL	Return/feed/vent lines. Used at buildings where the return/feed lines and the vent lines were located close together and one sample could be collected for both lines
SCNT1	Sample collected at a location of suspected contamination
(W)E1	Sample collected from the eastern sidewall of the western half of the excavation (remedial excavation).
TP	Test pit/trench
HWAB	Hazardous waste area building (former location)
AST	Above ground storage tank
9105ASTB1	Sample collected at the former location of an AST at the specified building
DEL	Delineation sample to document the extent of contamination
SD	Sample collected from a storm drain
SW	Sample collected from a sidewall of a remedial excavation
CTR	Copper tubing run
CSP-1	Clean soil pile

Table 1
 Summary of Post-Excavation Sampling Activities
 Building 9100, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9100RF/VL	12/8/97	12/9/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9100B1	12/8/97	12/9/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9100B2	12/8/97	12/9/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9100B3	12/8/97	12/9/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9100E	12/8/97	12/9/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9100S	12/8/97	12/9/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9100W	12/8/97	12/9/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9100N	12/8/97	12/9/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9100OBS1	12/9/97	12/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9100OBS2	12/9/97	12/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

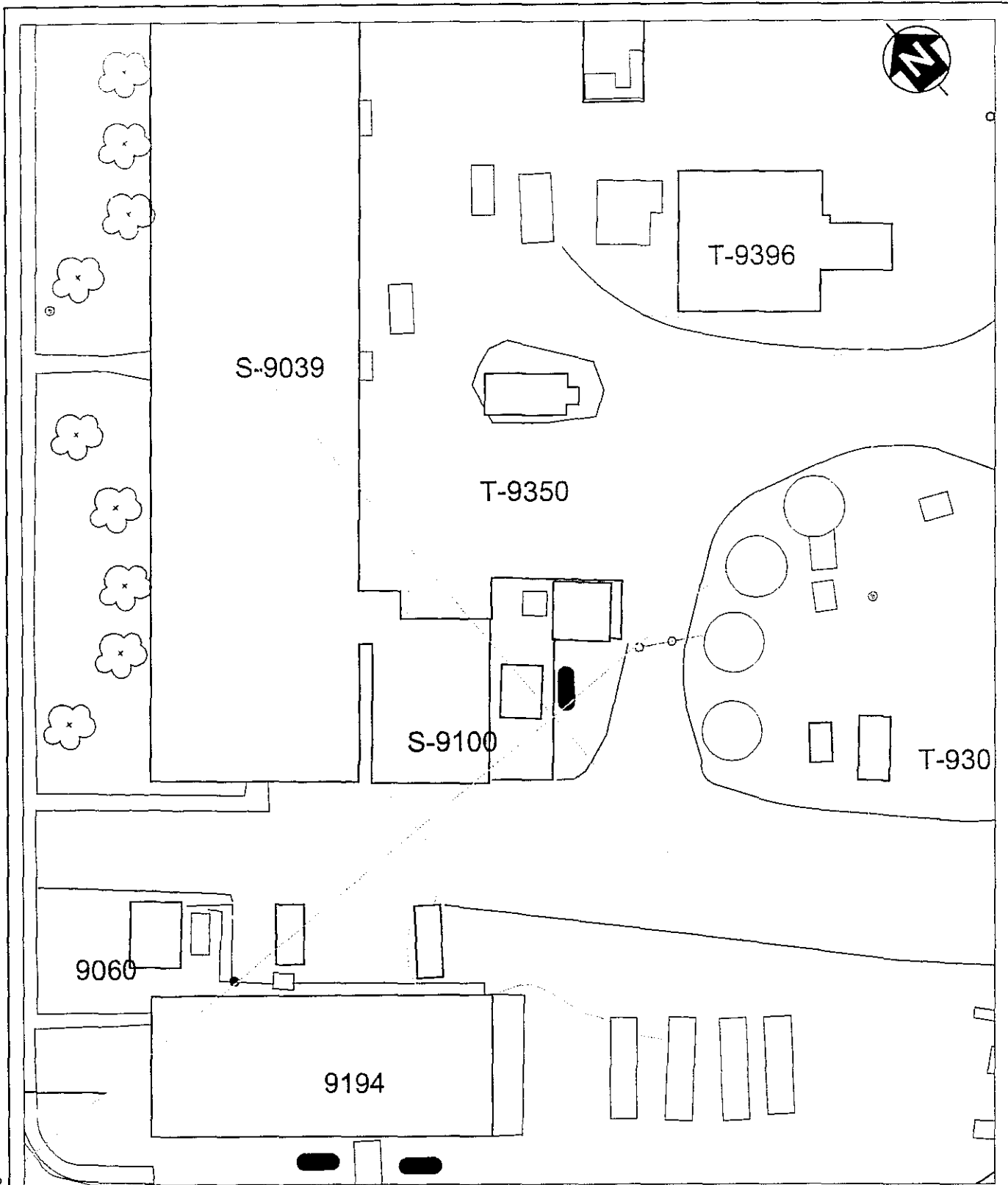
* TPHC Total petroleum hydrocarbons

Table 2
 Post-Excavation Soil Sampling Results
 Building 9100, Camp Evans Area
 Wall Township, New Jersey


Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9100RF/VL	3204.01	12/8/97	12/9/97	TPHC	161	ND	10,000	No
9100B1	3204.02	12/8/97	12/9/97	TPHC	169	ND	10,000	No
9100B2	3204.03	12/8/97	12/9/97	TPHC	167	ND	10,000	No
9100B3	3204.04	12/8/97	12/9/97	TPHC	162	ND	10,000	No
9100E	3204.05	12/8/97	12/9/97	TPHC	164	ND	10,000	No
9100S	3204.06	12/8/97	12/9/97	TPHC	164	ND	10,000	No
9100W	3204.07	12/8/97	12/9/97	TPHC	162	ND	10,000	No
9100N	3204.08	12/8/97	12/9/97	TPHC	172	ND	10,000	No
9100OBS1	3206.10	12/9/97	12/10 - 11/97	TPHC	166	ND	10,000	No
9100OBS2	3206.11	12/9/97	12/10 - 11/97	TPHC	165	ND	10,000	No

Note:

- * Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
- ND Not detected
- TPHC Total petroleum hydrocarbons

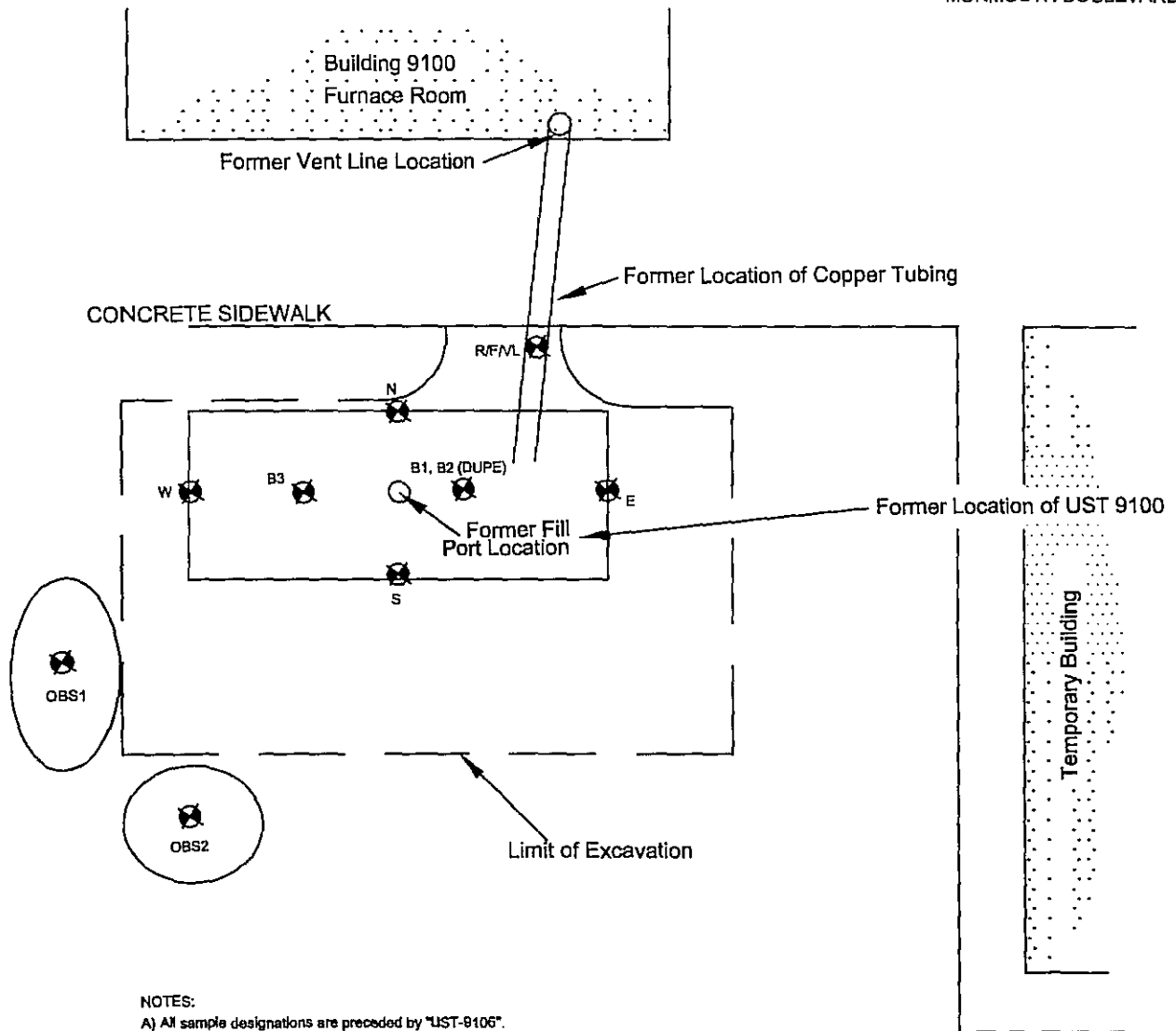


9:100.DWG jhd 01/19/99

EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 1 BUILDING 9100 - UST REMOVAL LOCATION MAP
 TETRA TECH EM INC.



SITE NORTH (TOWARD
MONMOUTH BOULEVARD)



NOTES:

- A) All sample designations are preceded by "UST-9106".
- B) Sample Depths:
 - 1) B1, B2 and B3: 7.5'-8.0'
 - 20 N,E,S,W: 7.0'-7.5'
 - 30 R/F/M/L: 2.0'-1.5'
 - 4) OBS1, OBS2: PILE
- C) Sample IDs were assigned based on site north toward Monmouth Boulevard



EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 2
BUILDING 9100 - UST REMOVAL
AND SOIL SAMPLE LOCATIONS



TETRA TECH EM INC.

APPENDIX A

SIGNED SITE ASSESSMENT SUMMARY FORM

UST NO. 90029-31

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: US Army, Fort Monmouth, Evans Area

Facility Street Address: Building 1207, DCSOPS-BID

Municipality: Wall Township County : Monmouth

Block: 240, 241 and 242 Lot(s): 240 (55.01, 55.02, 55.03 & 55.04), 241 (1), 242 (1.01 & 1.02)

Telephone Number : (732) 239-2427

B. Owner (RP)'s Name: US Army, CECOM

Street Address: DCSOPS-BID, Bldg. 1207 City : Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-5052

C. (Check as appropriate)

- Site Investigation

Report (SIR) \$500 Fee

- Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager : Mr. Ian Curtis
- UST Registration Number (7 digits): 90029 - 31
- Incident Report Number (10 or 12 digits): _____
- Tank Closure Number C(N)9 (7 characters): Approved by Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E : Yes

Name: Kevin J. Phelan Signature: Kevin J. Phelan UST Cert. No.: 0018436

Firm: Tetra Tech EM, Inc. Firm's UST Cert. Number: US00457

Firm Address: 1 Bank Street, Suite 103 City: Rockaway

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

State: NJ

Zip: 07866

Telephone Number : (973) 9830507, Ext. 230

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

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

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

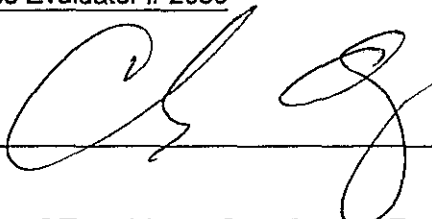
1. For a Corporation by a person authorized by a resolution of the board of directors to sign the document. A copy of the resolution, certified as a true copy by the secretary of the corporation, shall be submitted along with the certification; or
2. For a partnership or sole proprietorship, by a general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

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

Name (Print or Type): Mr. Charles Appleby

Title: BRAC Environmental Coordinator, Evans Area
NJDEP Subsurface Evaluator # 2056

Signature: _____



Company Name: US Army, CECOM, DCSOPS-BID, Fort Monmouth NJ, 07703

Date: November 30, 2000

APPENDIX B

PHOTOGRAPHS OF UST CLOSURE

UST NO. 90029-31



PHOTO 1: View of UST-9100 after the completion of tank cleaning activities (looking north/northeast).

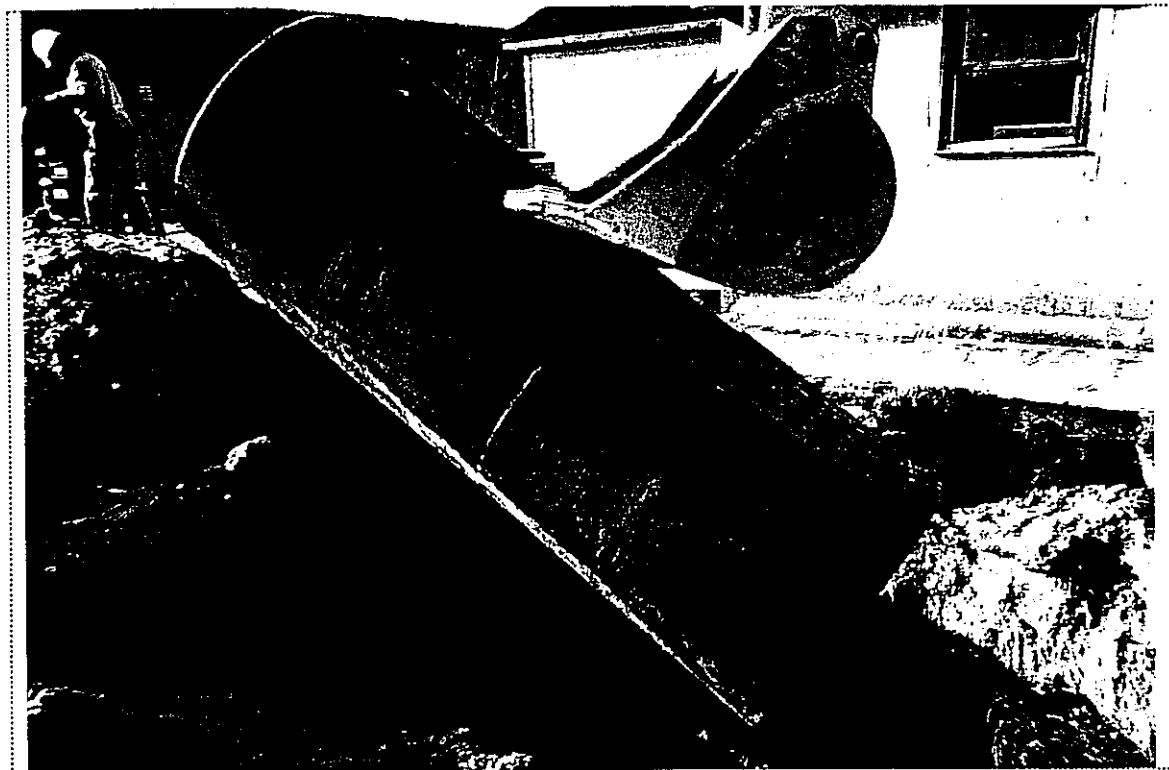


PHOTO 2: View of UST-9100 being removed from the ground (looking northwest).



PHOTO 3: View of the sampling locations in the UST-9100 excavation (looking east).



PHOTO 4: View of UST-9100 staged on the west side of Building 9100 awaiting disposal and labeled with all required information.

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA PACKAGE

UST NO. 90029-31


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

Client : U.S. Army Lab. ID # : 3206
 DPW. SELFM-PW-EV Date Rec'd: 10-Dec-97
 Bldg. 173 Analysis Start: 10-Dec-97
 Ft. Monmouth, NJ 07703 Analysis Complete: 11-Dec-97

Analysis: OQA-QAM-025 UST Reg. #:
 Matrix: Soil Closure #:
 Analyst: D.DEINHARDT DICAR #:
 Ext. Meth: Shake Location #: BLDGS. 9019
 9090, 9100

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3206.01	9019-EL1	1.00	15.31	84.44	182	3164.29
3206.02	9019-B4	1.00	15.39	98.60	155	ND
3206.03	9019-B5	1.00	15.09	96.02	162	ND
3206.04	9019-W2	1.00	15.19	88.84	174	ND
3206.05	9019-N2	1.00	15.51	84.04	180	ND
3206.06	9019-S2	1.00	15.24	85.59	180	ND
3206.07	9019-E2	1.00	15.14	93.86	165	ND
3206.08	9090-OBS1	1.00	15.04	88.17	177	244.42
3206.09	9090-OBS2	1.00	15.90	88.59	167	228.92
3206.10	9100-OBS1	1.00	15.07	93.93	166	ND
3206.11	9100-OBS2	1.00	15.75	90.31	165	ND
METHOD BLANK	10-Dec-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

APPENDIX D

UST DISPOSAL CERTIFICATE

UST NO. 90029-31



Forward From:
The Drawing Board
P.O. Box 2944 • Hartford, CT 06104-2944
Call Toll Free 1-800-547-6888

REORDER ITEM # BLN74

STRAIGHT BILL OF LADING
ORIGINAL - NOT NEGOTIABLE

Shipper # 023

SMC ENVIRONMENTAL SERVICES GROUP
(Name of Carrier)

Carrier No. _____

Date _____

To: <u>Mazza + Sons, inc</u>	From: <u>U.S. Army Camp Evans</u>
Street: <u>3230 Shatto Road</u>	Street: <u>Building 9100</u>
City: <u>Tinton Falls, NJ 07753</u>	City: <u>Wall NJ 07719</u>

No. Shipping Units	Weight (Selling to Consignee)	RATE	CHARGES
①	1-1,000 Gallon U.S. Std Skel		
	Building # 9100		
	TANK # 90029-31		

REMIT C.O.D. TO: ADDRESS NOTE - Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not stated by _____ per _____	COD Amt: \$ _____ This is to certify that the above named article is as property described, described, packed, marked and insured, and is in proper condition for transportation according to the applicable regulations of the Department of Transportation.	C.O.D. FEE: PREPAID <input type="checkbox"/> \$ _____ COLLECT <input type="checkbox"/> TOTAL CHARGES: \$ _____ FREIGHT COLLECT: <input type="checkbox"/>
---	---	--

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above is apparent good order, except as noted (contents and condition of contents of packages unknown, repacked, condensed, and damaged as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. If it is mutually agreed as to each carrier of all or any of, said property over or at any point of said route to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER <u>U.S. Army Camp Evans</u>	CARRIER <u>SMC ENVIRONMENTAL SERVICES GROUP</u>
PER <u>David H. Daniels (Agent)</u>	PER <u>Mark C. Lynch</u>
	DATE <u>1/20/98</u>

1995 8:52PM FROM JMT ENVIRON. TECH 610 789 6149

SMC Environmental Services Group
A Subsidiary of Science Management Corporation
P.O. Box 859
Valley Forge, Pennsylvania 19482
Telephone (610) 265-2700

CERTIFICATE OF NON-HAZARDOUS VESSEL

FACILITY: Camp Evans (U.S. Army)
Wall, NJ
Building # 9100
VESSEL: 1,000-Gallon Steel UST
(Formerly # 2 Fuel Oil)

This letter is to confirm that the vessel/vessels at the above referenced location has been physically entered (if necessary), degreased, washed/cleaned, and the material contained within has been completely removed and properly disposed. As of 3:00 A.M./P.M. on 12/8/97, the above said vessel is certified gas free and has been cleaned following recommended procedures in API PUBLICATION 2015. Due to conditions that SMC Environmental Services Group has no control over, this certification is valid only until the vessel is received by the designated steel recycling facility. SMC Environmental Services Group will not be held liable for any damages which may occur after certification.

SMC ENVIRONMENTAL SERVICES GROUP
SIGNATURE OF CERTIFICATION

David H. Daniels
Signature

David H. Daniels / site manager
Print or Type Name Here

APPENDIX E

**WASTE MANIFEST FOR
OFF-SITE TRANSPORT OF UST CONTENTS
UST NO. 90029-31**



Old Bridge, N.J. 08857
 (908) 721-0900
 Fax (908) 721-0231

STANDARD
 COLLECTION
 ORDER FORM

181260

GENERATOR/LOCATION

SALES ORDER #

BILL TO (IF DIFFERENT FROM LOCATION)

CAMP QUINS AREA
 INFORMATION/ATTENTION LINE
 ACCOUNT APPROVAL CODE
 DELIVERY ADDRESS
WALL NJ
 CITY STATE ZIP
 PHONE NUMBER
 PURCHASE ORDER NUMBER
 USA EPA ID NO. (IF APPLICABLE)
 STATE ID NO.
NA

SMG Environmental Services
 INFORMATION/ATTENTION LINE
 ACCOUNT APPROVAL CODE
 DELIVERY ADDRESS
501 Allendale Road
 CITY STATE ZIP
King of Prussia PA 19406
 PHONE NUMBER PURCHASE ORDER NUMBER
(610) 265-2700 16898
 MANIFEST NUMBER
9779

SHIPPING INFORMATION

This is to certify that the below 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.

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	SALES REPRESENTATIVE
-----	------	------	------	---	----------------------

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	TAX	LINE TOTAL
40500	USED OIL REMOVAL		600				
40300	ANTI-FREEZE REMOVAL						
40600	USED OIL FILTER REMOVAL						
40501	OILY WATER DISPOSAL						
40502	SLUDGE DISPOSAL						
41001	GASOLINE/WATER						
41501	DRUM DISPOSAL						
504	TANK ENTRY						
800	PARTS WASHER SERVICE						
41500	TRUCK & OPERATOR		1 AM - 1030 AM				
41511	NEW 55 GAL DRUM /17H						
41503	QAQC ANALYTICAL TESTING						
42001	DEXSIL TEST KIT	TAX					
41509	TRANSPORTATION						

600 gallons
3.5 hours
 Pumped out Drums & TANK

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION.

INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES.

GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED LORCO HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

Generator certifies that the waste is _____
 In accordance the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

DINKER M. DESAI

Print Name Title
 Signature Date
 GENERATOR/CUSTOMER

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C.F.R. 261, and does not accumulate more than 1,000 kilograms of such waste during the month.

GENERATOR'S SIGNATURE

LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT TEST RESULTS

21000 PPM

PAYMENT RECEIVED SECTION

CASH <input type="checkbox"/>	TOTAL RECEIVED
CHECK NUMBER	

CUSTOMER SERVICED EVERY 30 DAYS

In accordance with 40 CFR 266 § 43(5) LORCO has notified the US EPA of its location and used oil management activities.

JOHN SALVATO
 Print Name
 Signature Date
 LORCO REPRESENTATIVE

ORIGINAL



RD. 1, BOX 5A - OLD BRIDGE, NJ 08857

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N/A

Manifest No. 09779

2. Page 1 of 1

NHZ 009779

Generator's Name and Mailing Address US Army Communications Electronics Command

CAMP EVANS AREA C/O J. Fallon Bldg 173

ATTN: SEIFM-PW-EV FT Monmouth, NJ 07703

4. Generator's Phone (732) 427-4371

5. Transporter 1 Company Name LIONETTI OIL RECOVERY CC INC

6. US EPA ID Number NJ D 0 8 4 0 4 4 0 6 4

A. Transporter's Phone 908 721-0900

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address LIONETTI OIL RECOVERY CC INC DBA LORCO PETROLEUM SVCS RUNYON&CHEESEQUAKE RDS OLD BRIDGE, NJ 08857

10. US EPA ID Number NJ D 0 8 4 0 4 4 0 6 4

C. Facility's Phone 908 721-0900

11. Waste Shipping Name and Description

12. Containers No. Type 13. Total Quantity 14. Unit Wt/Vol

a. PETROLEUM OIL (PETROLEUM OIL) COMBUSTIBLE LIQUID UN1270 PGIII

0 0 1 T T X 6 0 0 G

b.

c.

d.

14. Additional Descriptions for Materials Listed Above T, L PETROLEUM OIL 90% WATER 10%

E. Handling Codes for Wastes Listed Above T04 FILTRATION

15. Special Handling Instructions and Additional Information 24 HR EMERGENCY RESPONSE#(908) 721-0900 DECAL#(708) ERG#128 DEXSIL TEST KIT RESULTS <u>1,000</u> PPM MANIFEST USED FOR TRACKING PURPOSES ONLY

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

Printed/Typed Name X DEWEER, M. DESAI Signature X [Signature] Month Day Year 12 31 97

17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name JOHN SAVATORE Signature [Signature] Month Day Year 12 31 97

18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19. Printed/Typed Name Signature Month Day Year

GENERATOR TRAILER FACILITY



GENERATOR CERTIFICATION

I hereby certify to the best of my knowledge that the waste described on Hazardous Waste Manifest No.

9779 dated 12/31/97,
is generated by one or more of the following processes and does not contain more than 2 ppm polychlorinated biphenyls (P.C.B.'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.

*This used oil product was tested on site, before pumping with a dexsil C.D.T. test kit. Results: _____ PPM halogens.

I am duly authorized to sign said certification.

Generator US Army COMMUNICATIONS ELECTRONICS COMMAND CAMP GUINS AFB

Generator's EPA ID No. NJ3210020324

Address 90 JOSEPH FAJON BLDG 121
APT 200 SAKA PHEN FORT MONMOUTH NJ 07703

Print Name DINKEL. M. DESAI Signature R. L. R

Title ENVIRONMENTAL ENGINEER

Date 11/6/97

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

*Building 9116
Camp Evans Area*

NJDEP UST Registration No. 192468-3

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APPENDICES

Appendix A	Signed Site Assessment Summary
Appendix B	Photographs of UST Closure
Appendix C	Soil Sample Analytical Data Package
Appendix D	UST Disposal Certificate
Appendix E	Waste Manifest for Off-site Transport of UST Contents

EXECUTIVE SUMMARY

UST Closure

On September 19, 1997, a steel underground storage tank (UST) was closed by removal at the Camp Evans area of the U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 192468-3 (Fort Monmouth Identification No. 9116), was located north of Building 9116 in the Camp Evans area of Fort Monmouth. The UST was a 1,000-gallon No. 2 fuel oil tank. The UST fill port was located directly above the western end of the tank.

Site Assessment

The site assessment was performed by Tetra Tech EM Inc. (Tetra Tech) and SMC Environmental Services Group (SMC). One pinhole was noted in the side of the UST; however, the only evidence of potentially contaminated soil was observed surrounding the fill port and the western end of the tank. Samples collected at the time the UST was removed contained total petroleum hydrocarbons (TPHC) concentrations ranging from non-detect to 324.09 milligrams per kilogram (mg/kg). The total amount of soil removed from the excavation was 5 cubic yards.

Site Restoration

After receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with clean native soil from the Building 9116 area, as well as clean soil imported from the New Jersey Sand and Gravel Company. The excavation site was then restored to its original condition.

Conclusions and Recommendations

Based on post-excavation soil sampling results, TPHC concentrations in remaining soil do not exceed the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent soil cleanup criteria of 1,000 mg/kg TPHC used by Fort Monmouth, at the former location of the UST or associated piping. No further action is proposed with regard to the closure and site assessment of UST No. 192468-3 at Building 9116.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 192468-3, was closed at Building 9116 at the Camp Evans area of U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey on September 19, 1997. The UST was a steel 1,000-gallon tank containing No. 2 fuel oil.

The UST removal was performed in accordance with the Fort Monmouth UST Management Plan (S.O.P. Number 19), which had previously been approved by the NJDEP. The signed site assessment summary form for UST No. 192468-3 is included in Appendix A.

Based on an inspection of the UST, field screening of subsurface soil, and soil sample analytical results, Tetra Tech has concluded that no significant historical discharges are associated with UST No. 192468-3.

This report was prepared based on information collected at the time of UST closure. Section 1 of this UST closure and site investigation report provides a site description and summarizes UST removal activities. Section 2 describes site investigation activities, including field screening and soil sampling. Section 3 presents the post-excavation soil sampling results. Conclusions and recommendations are presented in Section 4 of this report.

1.1 SITE DESCRIPTION

Building 9116 is located in the Diana Radar Section of the Camp Evans area of the Fort Monmouth Army Base as shown in Figure 1. UST No. 192468-3 was located north of Building 9116 and associated piping ran approximately 14 feet southwest from the UST to Building 9116. The UST fill port area was located directly above the western end of the tank. A site map is provided in Figure 1 showing the location of the UST removal relative to Building 9116.

1.2 UNDERGROUND STORAGE TANK EXCAVATION AND CLEANING

Prior to UST decommissioning activities, surficial soil was excavated to expose the UST and associated piping. All free product present in the piping was purged with compressed air into the UST. The UST was not purged prior to the removal of the piping because of the low volatility of No. 2 fuel oil. After the removal of associated piping, soil excavation continued to uncover the UST. Once the UST was uncovered, SMC cut open the tank with a nonsparking pneumatic cutter and the remaining contents of the tank were removed with drum vacuum equipment. SMC completed cleaning the UST by wiping the interior out with oil absorbent pads.

After the UST was cleaned, it was removed from the excavation, staged on polyethylene sheeting, and examined for holes. One pinhole was observed on the side of the UST by the Tetra Tech site manager and the SMC subsurface evaluator. Appendix B provides photographs of the tank. Soil around the UST was screened visually and with a photoionization detector (PID) and flame ionization detector (FID) for contamination. No evidence of contamination was observed or detected by the PID/FID except for soil located adjacent to the UST fill port. Visual and PID/FID soil screening was also performed along piping associated with the UST. No contamination was noted anywhere along the piping length.

The sludges and tank residues removed from the UST were transported by Lorco Petroleum Company to its NJDEP-approved petroleum recycling and disposal facility in Old Bridge, New Jersey. Appendix E provides a copy of the waste manifest for the off-site transport of the tank contents.

1.3 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The cleaned tank was transported to Mazza and Sons, Inc. in Tinton Falls, New Jersey for disposal in compliance with all applicable regulations and laws. Appendix D provides a copy of the UST Disposal Certificate. Prior to transport, the UST was labeled with the following information:

- Site of origin
- Contact person
- NJDEP UST facility identification number
- Name of transporter and contact person
- Destination site and contact person

1.4 MANAGEMENT OF EXCAVATED SOILS

Post-excavation soil sampling locations are shown in Figure 2 and discussed in Section 2.2. Based on PID/FID air monitoring results, soil adjacent to the fill port and the western end of the UST was contaminated. This soil was removed to the staging area for disposal off site at a later date and the clean excavated soil and imported clean fill were used to backfill the UST excavation.

2.0 SITE INVESTIGATION ACTIVITIES

In accordance with NJDEP's "Technical Requirements for Site Remediation" and "Field Sampling Procedures Manual," Tetra Tech and SMC personnel conducted the site assessment. The site investigation was managed by Tetra Tech and performed by SMC. All analyses were performed and results reported by the U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory operated by TECOM-Vinnell Services, Inc. (TVS). All sampling was performed under the direct supervision of a NJDEP certified subsurface evaluator in accordance with methods described in NJDEP's "Field Sampling Procedures Manual" dated 1992. Sampling frequency and parameters analyzed complied with applicable regulations at the date of UST closure specified in NJDEP-BUST's document "Interim Closure Requirements for Underground Storage Tank Systems" dated October 1990; revisions dated November 1, 1991. All records of site investigation activities are maintained by Tetra Tech and the Fort Monmouth Department of Public Works (DPW) Environmental Office.

The following parties participated in UST closure and site investigation activities:

- Subsurface Evaluator: David H. Daniels
Employer: SMC Environmental Services Group
Telephone No.: (215) 788-7844
NJDEP Certification No.: 0010279
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Telephone No.: (732) 532-4359
NJDEP Company Certification No.: 13461

- Hazardous Waste Hauler: Lorco Petroleum Company
Contact Person: Dan MacKay
Telephone No.: (732) 721-0900
NJDEP Hazardous Waste Hauler No.: S6247

2.1 FIELD SCREENING/MONITORING

Visual screening and field screening using a PID/FID were performed by a NJDEP certified subsurface evaluator to identify potentially contaminated material. Soil excavated from around the eastern two-thirds of the UST and associated piping, as well as the UST excavation sidewalls and bottom, did not exhibit evidence of contamination at the time of the UST removal; however, soil excavated from the area of the fill port and the western one-third of the UST did exhibit indications of contamination and was stockpiled separately (prior to transport to the staging area).

2.2 SOIL SAMPLING

On September 19, 1997, after UST removal, post-excavation soil samples 9116B1, 9116B2, 9116B3, (Duplicate of 9116B2), 9116S, 9116W, 9116E, 9116N, and 9116RF were collected from seven locations in the UST excavation. Figure 2 presents the sampling locations. Excavation sidewall samples were collected at the edge of the former UST location, and bottom samples were collected from 0 to 6-inches beneath the former UST location, or 4.5 to 5-feet below ground surface (bgs). The sidewall samples were collected from 4 to 4.5-feet bgs. Sample 9116RF was collected from next to Building 9116 along the former return/feed line piping length of the excavation, which was approximately 14 feet long. Sample 9116RF was collected from 0.5 to 1-feet bgs. Samples 9006OBS(A) and 9006OBS(B) were collected from the overburden soil piles to verify that the piles were not contaminated and could be used as clean backfill for the excavation. In addition, sample 9116CSP was collected from a pile of soil that had been adjacent to the fill port and the western end of the UST and sample 9116DS was collected from the center of the excavation at a depth of 8.5 to 9-feet bgs. All samples were analyzed for TPHC and total solids.

Post-excavation soil samples were collected in accordance with standard sampling procedures specified in NJDEP's Field Sampling Procedures Manual" dated 1992. Samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory in Fort Monmouth, New Jersey, for analysis. A summary of post-excavation sampling activities, including parameters analyzed for, is provided in Table 1.

3.0 SOIL SAMPLING RESULTS

To evaluate soil conditions after removal of the UST and associated piping, post-excavation soil samples were collected from seven locations on September 19, 1997. All samples were analyzed for TPHC and total solids. Post-excavation sampling results were compared to the NJDEP residential direct contact soil cleanup criterion of 10,000 mg/kg for total organic contaminants (N.J.A.C. 7:26D and revisions dated February 3, 1994) and the more stringent soil cleanup criterion of 1,000 mg/kg TPHC used by Fort Monmouth. A summary of the analytical results and comparison to the NJDEP soil cleanup criterion is provided in Table 2. Soil sampling locations are shown in Figure 2. The analytical data package is provided in Appendix C.

One of the post-excavation soil samples collected on September 19, 1997, from the UST excavation and from below piping associated with the UST contained 324.09 mg/kg of TPHC, which is below the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg and the more stringent Fort Monmouth soil cleanup criterion. The remainder of the samples contained TPHC concentrations from non-detect to 243.31 mg/kg.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results for all post-excavation soil samples for soil remaining in the UST excavation at Building 9116 were below the NJDEP soil cleanup criterion for required VOC analysis.

Based on post-excavation sampling results, soil containing TPHC concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent Fort Monmouth soil cleanup criterion of 1,000 mg/kg TPHC, do not exist in the former location of the UST or associated piping; therefore, no further action is proposed with regard to the closure and site assessment of UST No. 192468-3 at Building 9116.

Legend of Sample Identifications
Camp Evans Area
Wall Township, New Jersey

B	Sample from the bottom of the excavation
W	Samples from the west sidewall of the excavation
E	Samples from the east sidewall of the excavation
N	Samples from the north sidewall of the excavation
S	Samples from the south sidewall of the excavation
RF	Sample from beneath the former location of the return/feed lines of the UST
VL	Sample from beneath the former location of the vent line to the UST
OBS	Sample from the overburden soil pile of a UST excavation to determine if the soil can be used as backfill or must be transported to the contaminated soil stockpile
N21	Sample collected from the north sidewall on the second day of sampling (from a particular UST excavation) first sample (from that particular sidewall or area of the excavation) (NOTE: The "21" designation can be used with any of the letter combinations listed above).
FPS	Soil located directly adjacent to the fill port of the tank ("Fill Port Soil").
BFP	Soil located beneath the fill port of the tank ("Beneath Fill Port")
9116CSP	Contaminated soil pile from the UST-9116 excavation
DS	Deep Sample
9196BE1A	Geoprobe boring performed on the east side of the UST-9196 excavation to investigate contamination from the leaking UST. Last number denotes the boring number and last letter indicates which sample in the sequence.
RFL/B6	Sample from remedial excavation of a leaking remote fill line/what area of the excavation the sample was collected.
RF(CT)	Samples was collected from return feed lines consisting of copper tubing.
RFL(2)	Samples collected from a second remote fill line for a particular UST excavation
RB1	Remedial excavation for a particular building. The second letter and number designate the particular area of the excavation where the sample was collected
CNFRM	Confirmatory sample to confirm that contamination has been removed
CNFM	Another designation for a confirmatory sample
R/F/VL	Return/feed/vent lines. Used at buildings where the return/feed lines and the vent lines were located close together and one sample could be collected for both lines
SCNT1	Sample collected at a location of suspected contamination
(W)E1	Sample collected from the eastern sidewall of the western half of the excavation (remedial excavation).
TP	Test pit/trench
HWAB	Hazardous waste area building (former location)
AST	Above ground storage tank
9105ASTB1	Sample collected at the former location of an AST at the specified building
DEL	Delineation sample to document the extent of contamination
SD	Sample collected from a storm drain
SW	Sample collected from a sidewall of a remedial excavation
CTR	Copper tubing run
CSP-1	Clean soil pile

Table 1
 Summary of Post-Excavation Sampling Activities
 Building 9116, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9116RF	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116OBS(A)	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116OBS(B)	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116B1	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116B2	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116B3	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116E	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116S	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116W	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116N	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116CSP	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9116DS	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Table 2
 Post-Excavation Soil Sampling Results
 Building 9116, Camp Evans Area
 Wall Township, New Jersey

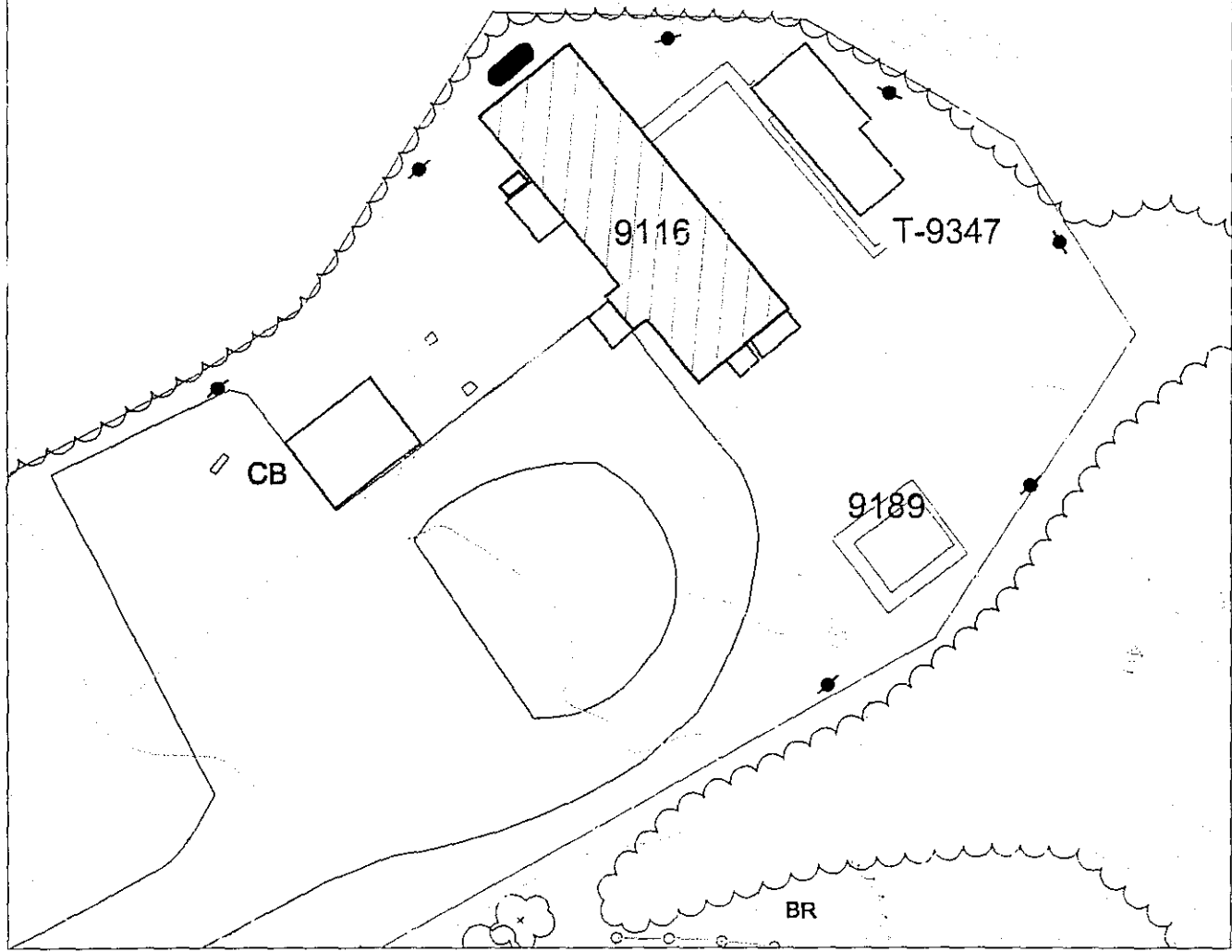
Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9116RF	3004.01	9/19/97	9/22 - 24/97	TPHC	166	240.92	10,000	No
9116OBS(A)	3004.02	9/19/97	9/22 - 24/97	TPHC	156	243.31	10,000	No
9116OBS(B)	3004.03	9/19/97	9/22 - 24/97	TPHC	155	199.57	10,000	No
9116B1	3004.04	9/19/97	9/22 - 24/97	TPHC	159	ND	10,000	No
9116B2	3004.05	9/19/97	9/22 - 24/97	TPHC	166	ND	10,000	No
9116B3	3004.06	9/19/97	9/22 - 24/97	TPHC	166	ND	10,000	No
9116E	3004.07	9/19/97	9/22 - 24/97	TPHC	160	ND	10,000	No
9116S	3004.08	9/19/97	9/22 - 24/97	TPHC	162	324.09	10,000	No
9116W	3004.09	9/19/97	9/22 - 24/97	TPHC	164	ND	10,000	No
9116N	3004.10	9/19/97	9/22 - 24/97	TPHC	159	ND	10,000	No
9116CSP	3004.11	9/19/97	9/22 - 24/97	TPHC	161	224.20	10,000	No
9116DS	3004.12	9/19/97	9/22 - 24/97	TPHC	163	ND	10,000	No

Note:

- * Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
- ND Not detected
- TPHC Total petroleum hydrocarbons



DENSE TREES



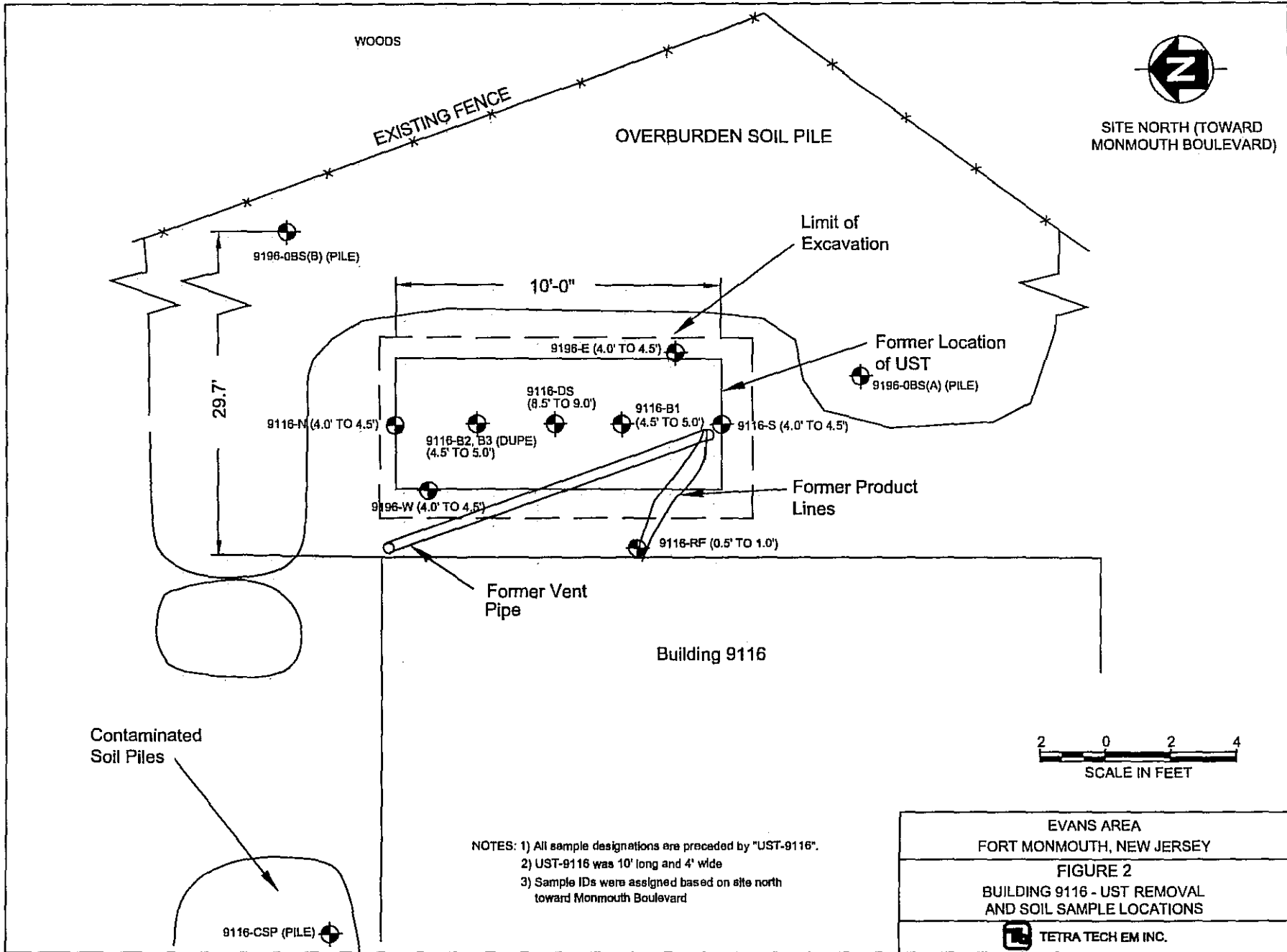
 UNDERGROUND STORAGE TANK



FIGURE 1
BUILDING 9116 - UST REMOVAL LOCATION MAP

 TETRA TECH EM INC.

9047.DWG.ASC 01/19/99



EVANS AREA
 FORT MONMOUTH, NEW JERSEY
FIGURE 2
 BUILDING 9116 - UST REMOVAL
 AND SOIL SAMPLE LOCATIONS
 TETRA TECH EM INC.

APPENDIX A

SIGNED SITE ASSESSMENT SUMMARY FORM

UST NO. 192468-3

(12/97) New Jersey Department of Environmental Protection Site Remediation Program

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: US Army, Fort Monmouth, Evans Area

Facility Street Address: Building 1207, DCSOPS-BID

Municipality: Wall Township County : Monmouth

Block: 240, 241 and 242 Lot(s): 240 (55.01, 55.02, 55.03 & 55.04), 241 (1), 242 (1.01 & 1.02)

Telephone Number : (732) 239-2427

B. Owner (RP)'s Name: US Army, CECOM

Street Address: DCSOPS-BID, Bldg. 1207 City : Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-5052

C. (Check as appropriate)

- Site Investigation

Report (SIR) \$500 Fee

- Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager : Mr. Ian Curtis
- UST Registration Number : (7 digits): ~~98029~~ - 192468 - 3
- Incident Report Number (10 or 12 digits): _____
- Tank Closure Number C(N)9 (7 characters): Approved by Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E : Yes

Name: Kevin J. Phelan Signature: Kevin J. Phelan UST Cert. No.: 0018436

Firm: Tetra Tech EM, Inc. Firm's UST Cert. Number: US00457

Firm Address: 1 Bank Street, Suite 103 City: Rockaway

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

State: NJ

Zip: 07866

Telephone Number : (973) 9830507, Ext. 230

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

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

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

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

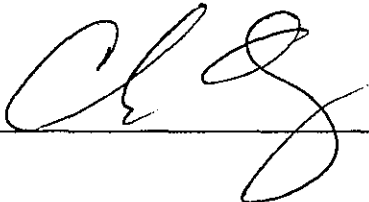
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true,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

Name (Print or Type): Mr. Charles Appleby

Title: BRAC Environmental Coordinator, Evans Area

NJDEP Subsurface Evaluator # 2056

Signature: _____



Company Name: US Army, CECOM, DCSOPS-BID, Fort Monmouth NJ, 07703

Date: November 30, 2000

APPENDIX B

PHOTOGRAPHS OF UST CLOSURE

UST NO. 192468-3



PHOTO 1: View of UST-9116 prior to excavation (looking south).



PHOTO 2: View of UST-9116 after cleaning the interior (looking north/northwest).



PHOTO 3: View of the sampling locations in the UST-9116 excavation (looking north).



PHOTO 4: View of UST-9116 staged to the south of Building 9062 awaiting removal to Building 9061 (to await permanent disposal) and labeled with all required information.

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA PACKAGE

UST NO. 192468-3

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


Client :	U.S. Army	Lab. ID # :	3004
	DPW. SELFM-PW-EV	Date Rec'd:	19-Sep-97
	Bldg. 173	Analysis Start:	22-Sep-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	24-Sep-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	9116, 9196

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3004.01	9116-RF	1.00	15.62	90.41	166	240.92
3004.02	9116-OBS(A)	1.00	15.66	96.04	156	243.31
3004.03	9116-OBS(B)	1.00	15.86	95.64	155	199.57
3004.04	9116-B1	1.00	15.48	95.59	159	ND
3004.05	9116-B2	1.00	15.52	91.35	166	ND
3004.06	9116-B3	1.00	15.45	91.53	166	ND
3004.07	9116-E	1.00	15.16	96.74	160	ND
3004.08	9116-S	1.00	15.31	94.51	162	324.09
3004.09	9116-W	1.00	15.17	94.55	164	ND
3004.10	9116-N	1.00	15.37	96.12	159	ND
3004.11	9116-CSP	1.00	15.74	92.75	161	224.20
3004.12	9116-DS	1.00	15.65	92.10	163	ND
3004.13	9196-B1	1.00	16.08	94.90	154	15028.64
3004.14	9196-B2	1.00	15.66	96.37	156	221.67
3004.15	9196-B3	1.00	15.39	97.08	157	523.64
3004.16	9196-W	1.00	16.02	98.21	149	183.81
3004.17	9196-S	1.00	15.49	89.64	169	ND
3004.18	9196-E	1.00	15.65	93.42	161	13158.85
3004.19	9196-N	1.00	15.56	96.78	156	18373.32
3004.20	9196-RF	1.00	15.00	91.09	172	482.61
METHOD BLANK	22-Sep-97	1.00	15.00	100.00	157	ND

ND = Not Detected

MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

APPENDIX D

UST DISPOSAL CERTIFICATE

UST NO. 192468-3



Member Firm:
The Drawing Board
P.O. Box 2944 - Hartford, CT 06114-2944
Call Toll Free: 1-800-837-8338

RECORDER ITEM # BLN74

STRAIGHT BILL OF LADING
ORIGINAL - NOT NEGOTIABLE

Shipper No. 003

SMC ENVIRONMENTAL SERVICES GROUP
Name of Carrier

Carrier No. _____
Date _____

<small>Consignee</small> <u>Mazza + Sons, Inc.</u>	<small>From Shipper</small> <u>U.S. Army Camp Evans</u>
<small>Street</small> <u>13230 Shafter Road</u>	<small>Street</small> <u>Building 9116</u>
<small>City/State</small> <u>Tinton Falls, NJ 07753</u>	<small>City/State</small> <u>Wall, NJ 07719</u>
<small>Phone</small> _____	<small>Telephone Number</small> _____

<small>Item</small>	<small>Quantity</small>	<small>Description of Goods, Special Marks and Specifications</small>	<small>Weight (to which to be added)</small>	<small>RATE</small>	<small>CHARGES</small>
①		<u>For scrap only</u> <u>1,000 Gallon U.S.T. Skid</u> <u>Claims #</u> <u>TANK # 192468-3</u> <u>Building # 9116</u>			

<small>REMIT C.O.D. TO: ADDRESS</small>	COD Amt: \$ _____	<small>C.O.D. FEE: PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/></small>
<small>NOTE: When the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby certified to be not exceeding _____ per _____</small>	<small>This is to certify that the above named marks of the property described, described, packaged, marked and numbered as set in proper condition for transportation according to the applicable regulations of the Department of Transportation.</small>	<small>Subject to Section 7 of the statute, this bill of lading is to be delivered as the property is received on the date of the receipt of the goods by the carrier or their agent or forwarding agent. (The carrier shall not make delivery of the goods, articles, parcels or things and of other traffic charges.)</small>
	<small>Signature of Carrier</small>	<small>TOTAL CHARGES: \$ _____</small>

RECEIVED, subject to the conditions and bills in effect on the date of the issue of this Bill of Lading, the property described above is apparent good order, except as noted (contents and condition of contents of packages unknown, marked, assigned, and delivered as indicated above which said carrier and the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract agrees to carry to its usual place of delivery of said destination, if on its route, otherwise to deliver to another carrier on the route in said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted by himself and his agents.

<small>SHIPPER</small> <u>U.S. Army Camp Evans</u>	<small>CARRIER</small> <u>SMC ENVIRONMENTAL SERVICES GROUP</u>
<small>PER</small> <u>David J. Jones (Agent)</u>	<small>PER</small> <u>Mark C. Jones</u>
	<small>DATE</small> <u>10/13/97</u>

*Mark with "X" in duplicate Standard Model as defined in Title 49 of the Code of Federal Regulations. Recorder Item BLN74 The Drawing Board, P.O. Box 2944, Hartford, CT 06114-2944 ©1997, Printed in U.S.A.

FROM JMT ENVIRON. TECH. 610 789 6149
1998 8:52AM

(W)

SMC Environmental Services Group

A Subsidiary of Energy Management Corporation

P.O. Box 850

Valley Forge Pennsylvania 19482

Telephone (610) 255-2700

CERTIFICATE OF NON-HAZARDOUS VESSEL

FACILITY: Camp Evans (U.S. Army)
Wall, NJ
Building 9116

VESSEL: 1,000 gallon steel tank
(Formerly #2 Fuel Oil)

This letter is to confirm that the vessel/vessels at the above referenced location has been physically entered (if necessary), degreased, washed/cleaned, and the material contained within has been completely removed and properly disposed. As of 3:00 A.M./P.M. on 9/16/97, the above said vessel is certified gas free and has been cleaned following recommended procedures in API PUBLICATION 2015. Due to conditions that SMC Environmental Services Group has no control over, this certification is valid only until the vessel is received by the designated steel recycling facility. SMC Environmental Services Group will not be held liable for any damages which may occur after certification.

SMC ENVIRONMENTAL SERVICES GROUP
SIGNATURE OF CERTIFICATION

David H. Daniels / SMC
 Signature

David H. Daniels (site Manager)
 Print or Type Name Here

APPENDIX E

**WASTE MANIFEST FOR
OFF-SITE TRANSPORT OF UST CONTENTS
UST NO. 192468-3**



RD1 Box 5A
Old Bridge, N.J. 08857
(908) 721-0900
Fax (908) 721-0231

STANDARD
COLLECTION
ORDER FORM

176848

GENERATOR/LOCATION		SALES ORDER #		BILL TO (IF DIFFERENT FROM LOCATION)			
NAME		ACCOUNT APPROVAL CODE		INFORMATION/ATTENTION LINE		ACCOUNT APPROVAL CODE	
DELIVERY ADDRESS		PURCHASE ORDER NUMBER		DELIVERY ADDRESS		PURCHASE ORDER NUMBER	
CITY		STATE		CITY		STATE	
PHONE NUMBER		PURCHASE ORDER NUMBER		PHONE NUMBER		PURCHASE ORDER NUMBER	
USA EPA ID NO. (IF APPLICABLE)		STATE ID NO.		MANIFEST NUMBER			

SHIPPING INFORMATION

This is to certify that the below 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.

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	SALES REPRESENTATIVE
				Combust. L. 1 UN 1870 PG 111	SW

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	Tank	Volume
40500	USED OIL REMOVAL						
40300	ANTI-FREEZE REMOVAL						
40600	USED OIL FILTER REMOVAL					9307	55
40501	OILY WATER DISPOSAL		344	Gal			
40502	SLUDGE DISPOSAL					9162	55
11001	GASOLINE/WATER						
41501	DRUM DISPOSAL					9196	55
41504	TANK ENTRY						
40800	PARTS WASHER SERVICE					9116	55
41500	TRUCK OPERATOR						
41511	NEW 55 GAL DRUM 17H					9003	30
41503	QAQC ANALYTICAL TESTING						
42001	DEXSIL TEST KIT TAX					9006	200
41509	TRANSPORTATION					9059	30
						9031	30

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION. \$

INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES.

GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

Generator certifies that the waste is non-haz
In accordance with the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

Print Name: Charles Appleby Title: Env. Prod. Sr.
Signature: [Signature] Date: 10-7-97
GENERATOR/CUSTOMER

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C.F.R. 261, and does not accumulate more than 1,000 kilograms of such waste during the month.

LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT TEST RESULTS

PPM

Tank to the North of 9028 had 344 gallons of water

PAYMENT RECEIVED SECTION

CASH <input type="checkbox"/>	TOTAL RECEIVED
CHECK NUMBER	

CUSTOMER SERVICED EVERY 30 DAYS

In accordance with 40 CFR 266 § 43(5) LORCO has notified the US EPA of its location and used oil management activities.

Print Name: Guy Wick
Signature: [Signature] Date: 10-7-97
LORCO REPRESENTATIVE

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

*Building 9162
Camp Evans Area*

NJDEP UST Registration No. 192468-4

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4.0 CONCLUSIONS AND RECOMMENDATIONS.....	6

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Table 2	Post-Excavation Soil Sampling Results

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Figure 1	Building 9162 - UST Removal Location Map
Figure 2	Building 9162 - UST Removal and Soil Sample Locations

APPENDICES

Appendix A	Signed Site Assessment Summary
Appendix B	Photographs of UST Closure
Appendix C	Soil Sample Analytical Data Package
Appendix D	UST Disposal Certificate
Appendix E	Waste Manifest for Off-site Transport of UST Contents

EXECUTIVE SUMMARY

UST Closure

On September 17, 1997, a steel underground storage tank (UST) was closed by removal at the Camp Evans area of the U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 192468-4 (Fort Monmouth Identification No. 9162), was located west of Building 9162 in the Camp Evans area of Fort Monmouth. The UST was a 1,000-gallon No. 2 fuel oil tank. The UST fill port was located directly above the southern end of the tank.

Site Assessment

The site assessment was performed by Tetra Tech EM Inc. (Tetra Tech) and SMC Environmental Services Group (SMC). No holes were noted in the UST and the only evidence of potentially contaminated soil was observed surrounding the fill port. Samples collected at the time the UST was removed contained total petroleum hydrocarbons (TPHC) concentrations ranging from non-detect to 764.19 milligrams per kilogram (mg/kg). The total amount of soil removed from the excavation was 5 cubic yards.

Site Restoration

After receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with clean native soil from the Building 9162 area, as well as clean soil imported from the New Jersey Sand and Gravel Company. The excavation site was then restored to its original condition.

Conclusions and Recommendations

Based on post-excavation soil sampling results, TPHC concentrations in soil do not exceed the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent soil cleanup criteria of 1,000 mg/kg TPHC used by Fort Monmouth, at the former location of the UST or associated piping. No further action is proposed with regard to the closure and site assessment of UST No. 192468-4 at Building 9162.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 192468-4, was closed at Building 9162 at the Camp Evans area of U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey on September 17, 1997. The UST was a steel 1,000-gallon tank containing No. 2 fuel oil.

The UST removal was performed in accordance with the Fort Monmouth UST Management Plan (S.O.P. Number 19), which had previously been approved by the NJDEP. The signed site assessment summary form for UST No. 192468-4 is included in Appendix A.

Based on an inspection of the UST, field screening of subsurface soil, and soil sample analytical results, Tetra Tech has concluded that no significant historical discharges are associated with UST No. 192468-4 or associated piping.

This report was prepared based on information collected at the time of UST closure. Section 1 of this UST closure and site investigation report provides a site description and summarizes UST removal activities. Section 2 describes site investigation activities, including field screening and soil sampling. Section 3 presents the post-excavation soil sampling results. Conclusions and recommendations are presented in Section 4 of this report.

1.1 SITE DESCRIPTION

Building 9162 is located in the Diana Radar Section of the Camp Evans area of the Fort Monmouth Army Base as shown in Figure 1. UST No. 192468-4 was located west of Building 9162 and associated piping ran approximately 6 feet east from the UST to Building 9162. The UST fill port area was located directly above the southern end of the tank. A site map is provided in Figure 1 showing the location of the UST removal relative to Building 9162.

1.2 UNDERGROUND STORAGE TANK EXCAVATION AND CLEANING

Prior to UST decommissioning activities, surficial soil was excavated to expose the UST and associated piping. All free product present in the piping was purged with compressed air into the UST. The UST was not purged prior to the removal of the piping because of the low volatility of No. 2 fuel oil. After the removal of associated piping, soil excavation continued to uncover the UST. Once the UST was uncovered, SMC cut open the tank with a nonsparking pneumatic cutter and the remaining contents of the tank (approximately 55 gallons) were removed with drum vacuum equipment. SMC completed cleaning the UST by wiping the interior out with oil absorbent pads.

After the UST was cleaned, it was removed from the excavation, staged on polyethylene sheeting, and examined for holes. No holes or punctures were observed by the Tetra Tech site manager and the SMC subsurface evaluator. Appendix B provides photographs of the tank. Soil around the UST was screened visually and with a photoionization detector (PID) and flame ionization detector (FID) for contamination. No evidence of contamination was observed or detected by the PID/FID except for soil located adjacent to the UST fill port. Visual and PID/FID soil screening was also performed along piping associated with the UST. No contamination was noted anywhere along the piping length.

The 55 gallons removed from the UST were transported by Lorco Petroleum Company to its NJDEP-approved petroleum recycling and disposal facility in Old Bridge, New Jersey. Appendix E provides a copy of the waste manifest for the off-site transport of the 55 gallons of product.

1.3 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The cleaned tank was transported to Mazza and Sons, Inc. in Tinton Falls, New Jersey for disposal in compliance with all applicable regulations and laws. Appendix D provides a copy of the UST Disposal Certificate. Prior to transport, the UST was labeled with the following information:

- Site of origin
- Contact person
- NJDEP UST facility identification number
- Name of transporter and contact person
- Destination site and contact person

1.4 MANAGEMENT OF EXCAVATED SOILS

Post-excavation soil sampling locations are shown in Figure 2 and discussed in Section 2.2. Based on PID/FID air monitoring results, soil adjacent to the UST fill port was moderately contaminated. This soil was removed to the staging area for disposal off site at a later date and the clean excavated soil and imported clean fill were used to backfill the UST excavation.

2.0 SITE INVESTIGATION ACTIVITIES

In accordance with NJDEP's "Technical Requirements for Site Remediation" and "Field Sampling Procedures Manual," Tetra Tech and SMC personnel conducted the site assessment. The site investigation was managed by Tetra Tech and performed by SMC. All analyses were performed and results reported by the U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory operated by TECOM-Vinnell Services, Inc. (TVS). All sampling was performed under the direct supervision of a NJDEP certified subsurface evaluator in accordance with methods described in NJDEP's "Field Sampling Procedures Manual" dated 1992. Sampling frequency and parameters analyzed complied with applicable regulations at the date of UST closure specified in NJDEP-BUST's document "Interim Closure Requirements for Underground Storage Tank Systems" dated October 1990; revisions dated November 1, 1991. All records of site investigation activities are maintained by Tetra Tech and the Fort Monmouth Department of Public Works (DPW) Environmental Office.

The following parties participated in UST closure and site investigation activities:

- Subsurface Evaluator: David H. Daniels
Employer: SMC Environmental Services Group
Telephone No.: (215) 788-7844
NJDEP Certification No.: 0010279
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Telephone No.: (732) 532-4359
NJDEP Company Certification No.: 13461

- Hazardous Waste Hauler: Lorco Petroleum Company
Contact Person: Dan MacKay
Telephone No.: (732) 721-0900
NJDEP Hazardous Waste Hauler No.: S6247

2.1 FIELD SCREENING/MONITORING

Visual screening and field screening using a PID/FID were performed by a NJDEP certified subsurface evaluator to identify potentially contaminated material. Soil excavated from around the UST and associated piping, as well as the UST excavation sidewalls and bottom, did not exhibit evidence of contamination at the time of the UST removal; however, soil located adjacent to the UST fill port did exhibit evidence of potential contamination and was transported to the soil staging area.

2.2 SOIL SAMPLING

On September 17, 1997, after UST removal, post-excavation soil samples 9162B1, 9162B2, 9162B3 (Duplicate of 9162B2), 9162W, 9162N, 9162S, 9162E, and 9162RF were collected from seven locations in the UST excavation. Figure 2 presents the sampling locations. Excavation sidewall samples were collected at the edge of the former UST location, and bottom samples were collected from 0 to 6-inches beneath the former UST location, or 8 to 8.5-feet below ground surface (bgs). The sidewall samples were collected from 7.5 to 8-feet bgs. Sample 9162RF was collected from next to Building 9162 along the former return/feed line piping length of the excavation, which was approximately 6 feet long. Sample 9162RF was collected from 2 to 2.5-feet bgs. Sample 9162OBS was collected from the overburden soil pile to verify that the pile was not contaminated and could be used as clean backfill for the excavation. In addition, sample 9162FPS was collected from a pile of soil that had been adjacent to the fill port and sample 9162BFP was collected from a pile that had been beneath the fill port. All samples were analyzed for TPHC and total solids.

Post-excavation soil samples were collected in accordance with standard sampling procedures specified in NJDEP's Field Sampling Procedures Manual" dated 1992. Samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory in Fort Monmouth, New Jersey, for analysis. A summary of post-excavation sampling activities, including parameters analyzed for, is provided in Table 1.

3.0 SOIL SAMPLING RESULTS

To evaluate soil conditions after removal of the UST and associated piping, post-excavation soil samples were collected from seven locations on September 17, 1997. All samples were analyzed for TPHC and total solids. Post-excavation sampling results were compared to the NJDEP residential direct contact soil cleanup criterion of 10,000 mg/kg for total organic contaminants (N.J.A.C. 7:26D and revisions dated February 3, 1994) and the more stringent soil cleanup criterion of 1,000 mg/kg TPHC used by Fort Monmouth. A summary of the analytical results and comparison to the NJDEP soil cleanup criterion is provided in Table 2. Soil sampling locations are shown in Figure 2. The analytical data package is provided in Appendix C.

One of the post-excavation soil samples collected on September 17, 1997, from the UST excavation and from below piping associated with the UST contained 764.19 mg/kg of TPHC, which is below the NJDEP soil cleanup criterion of 1,000 mg/kg, used by Fort Monmouth, which requires either additional soil excavation/removal or volatile organic compound (VOC) sampling. The remainder of the samples contained TPHC concentrations from non-detect to 250.24 mg/kg.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results for all post-excavation soil samples for soil remaining in the UST excavation at Building 9162 were below the above mentioned NJDEP soil cleanup criterion for required VOC analysis.

Based on post-excavation sampling results, soil containing TPHC concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent Fort Monmouth soil cleanup criterion of 1,000 mg/kg, do not exist in the former location of the UST or associated piping; therefore, no further action is proposed with regard to the closure and site assessment of UST No. 192468-4 at Building 9162.

Legend of Sample identifications
Camp Evans Area
Wall Township, New Jersey

B	Sample from the bottom of the excavation
W	Samples from the west sidewall of the excavation
E	Samples from the east sidewall of the excavation
N	Samples from the north sidewall of the excavation
S	Samples from the south sidewall of the excavation
RF	Sample from beneath the former location of the return/feed lines of the UST
VL	Sample from beneath the former location of the vent line to the UST
OBS	Sample from the overburden soil pile of a UST excavation to determine if the soil can be used as backfill or must be transported to the contaminated soil stockpile
N21	Sample collected from the north sidewall on the second day of sampling (from a particular UST excavation) first sample (from that particular sidewall or area of the excavation) (NOTE: The "21" designation can be used with any of the letter combinations listed above).
FPS	Soil located directly adjacent to the fill port of the tank ("Fill Port Soil").
BFP	Soil located beneath the fill port of the tank ("Beneath Fill Port")
9116CSP	Contaminated soil pile from the UST-9116 excavation
DS	Deep Sample
9196BE1A	Geoprobe boring performed on the east side of the UST-9196 excavation to investigate contamination from the leaking UST. Last number denotes the boring number and last letter indicates which sample in the sequence.
RFL/B6	Sample from remedial excavation of a leaking remote fill line/what area of the excavation the sample was collected.
RF(CT)	Samples was collected from return feed lines consisting of copper tubing.
RFL(2)	Samples collected from a second remote fill line for a particular UST excavation
RB1	Remedial excavation for a particular building. The second letter and number designate the particular area of the excavation where the sample was collected
CNFRM	Confirmatory sample to confirm that contamination has been removed
CNFM	Another designation for a confirmatory sample
R/F/VL	Return/feed/vent lines. Used at buildings where the return/feed lines and the vent lines were located close together and one sample could be collected for both lines
SCNT1	Sample collected at a location of suspected contamination
(W)E1	Sample collected from the eastern sidewall of the western half of the excavation (remedial excavation).
TP	Test pit/trench
HWAB	Hazardous waste area building (former location)
AST	Above ground storage tank
9105ASTB1	Sample collected at the former location of an AST at the specified building
DEL	Delineation sample to document the extent of contamination
SD	Sample collected from a storm drain
SW	Sample collected from a sidewall of a remedial excavation
CTR	Copper tubing run
CSP-1	Clean soil pile

Table 1
 Summary of Post-Excavation Sampling Activities
 Building 9162, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9162OBS	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162FPS	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162B1	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162B2	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162B3	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162W	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162N	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162S	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162E	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162RF	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9162BFP	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

*TPHC Total petroleum hydrocarbons

Table 2
 Post-Excavation Soil Sampling Results
 Building 9162, Camp Evans Area
 Wall Township, New Jersey

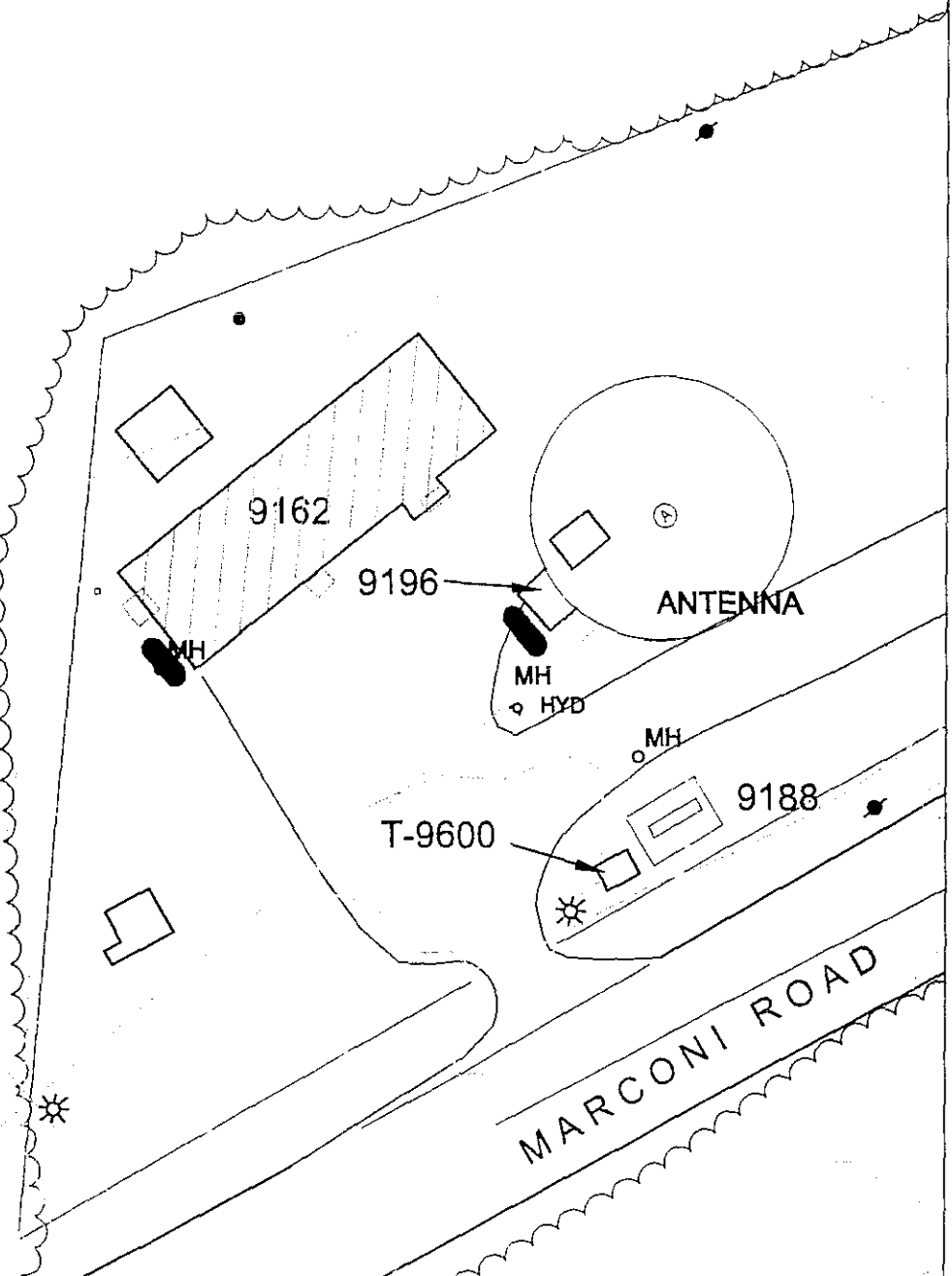
Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9162OBS	2999.01	9/17/97	9/18 - 19/97	TPHC	168	ND	10,000	No
9162FPS	2999.02	9/17/97	9/18 - 19/97	TPHC	161	764.19	10,000	No
9162B1	2999.03	9/17/97	9/18 - 19/97	TPHC	162	ND	10,000	No
9162B2	2999.04	9/17/97	9/18 - 19/97	TPHC	162	ND	10,000	No
9162B3	2999.05	9/17/97	9/18 - 19/97	TPHC	162	ND	10,000	No
9162W	2999.06	9/17/97	9/18 - 19/97	TPHC	200	ND	10,000	No
9162N	2999.07	9/17/97	9/18 - 19/97	TPHC	165	ND	10,000	No
9162S	2999.08	9/17/97	9/18 - 19/97	TPHC	156	ND	10,000	No
9162E	2999.09	9/17/97	9/18 - 19/97	TPHC	166	ND	10,000	No
9162RF	2999.10	9/17/97	9/18 - 19/97	TPHC	169	250.24	10,000	No
9162BFP	2999.11	9/17/97	9/18 - 19/97	TPHC	165	ND	10,000	No

Note:

* Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.

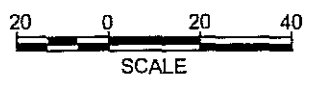
ND Not detected

TPHC Total petroleum hydrocarbons



9047.DWG ASC 01/19/99

 UNDERGROUND STORAGE TANK



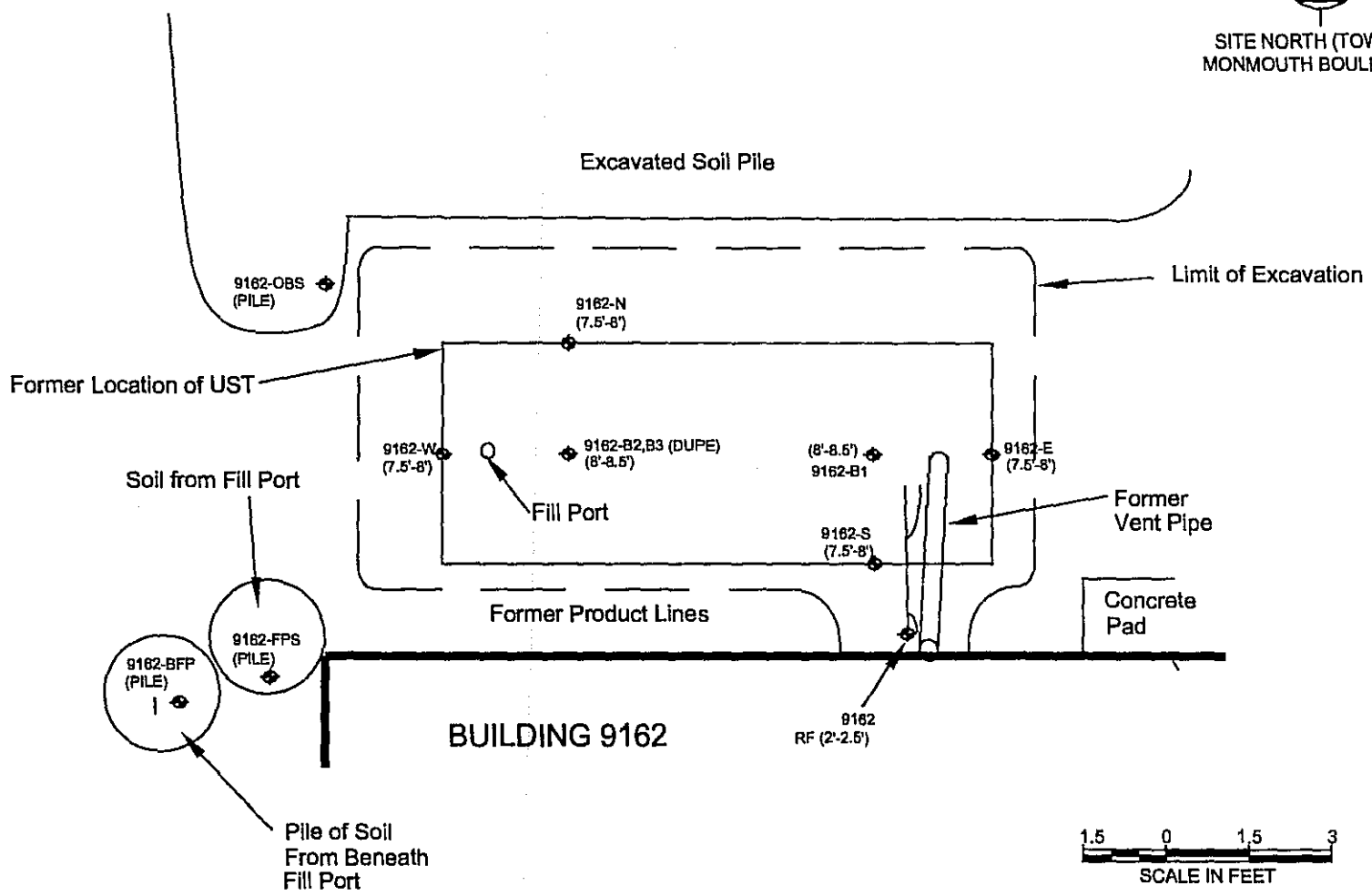
EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 1
BUILDING 9162 - UST REMOVAL LOCATION MAP


 TETRA TECH EM INC.



SITE NORTH (TOWARD
MONMOUTH BOULEVARD)



NOTES: 1) UST-9162 WAS 10' LONG AND 4' WIDE
2) SAMPLE IDS WERE ASSIGNED BASED ON SITE NORTH
TOWARD MONMOUTH BOULEVARD

EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 2 BUILDING 9162 - UST REMOVAL AND SOIL SAMPLE LOCATIONS
 TETRA TECH EM INC.

APPENDIX A

SIGNED SITE ASSESSMENT SUMMARY FORM

UST NO. 192468-4

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: US Army, Fort Monmouth, Evans Area

Facility Street Address: Building 1207, DCSOPS-BID

Municipality: Wall Township County : Monmouth

Block: 240, 241 and 242 Lot(s): 240 (55.01, 55.02, 55.03 & 55.04), 241 (1), 242 (1.01 & 1.02)

Telephone Number : (732) 239-2427

B. Owner (RP)'s Name: US Army, CECOM

Street Address: DCSOPS-BID, Bldg. 1207 City : Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-5052

C. (Check as appropriate)

- Site Investigation

Report (SIR) \$500 Fee

- Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager : Mr. Ian Curtis
- UST Registration Number : (7 digits): ~~90029~~ - 192468-4
- Incident Report Number (10 or 12 digits): _____
- Tank Closure Number C(N)9 (7 characters): Approved by Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E : Yes

Name: Kevin J. Phelan Signature: Kevin J. Phelan UST Cert. No.: 0018436

Firm: Tetra Tech EM, Inc. Firm's UST Cert. Number: US00457

Firm Address: 1 Bank Street, Suite 103 City: Rockaway

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

State: NJ

Zip: 07866

Telephone Number : (973) 9830507, Ext. 230

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

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

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

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

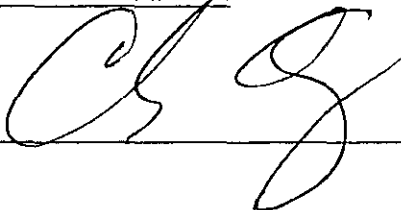
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true,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

Name (Print or Type): Mr. Charles Appleby

Title: BRAC Environmental Coordinator, Evans Area

NJDEP Subsurface Evaluator # 2056

Signature: _____



Company Name: US Army, CECOM, DCSOPS-BID, Fort Monmouth NJ, 07703

Date: November 30, 2000

APPENDIX B

PHOTOGRAPHS OF UST CLOSURE

UST NO. 192468-4



PHOTO 1: View of UST-9162 being uncovered prior to cleaning and removal (looking south).

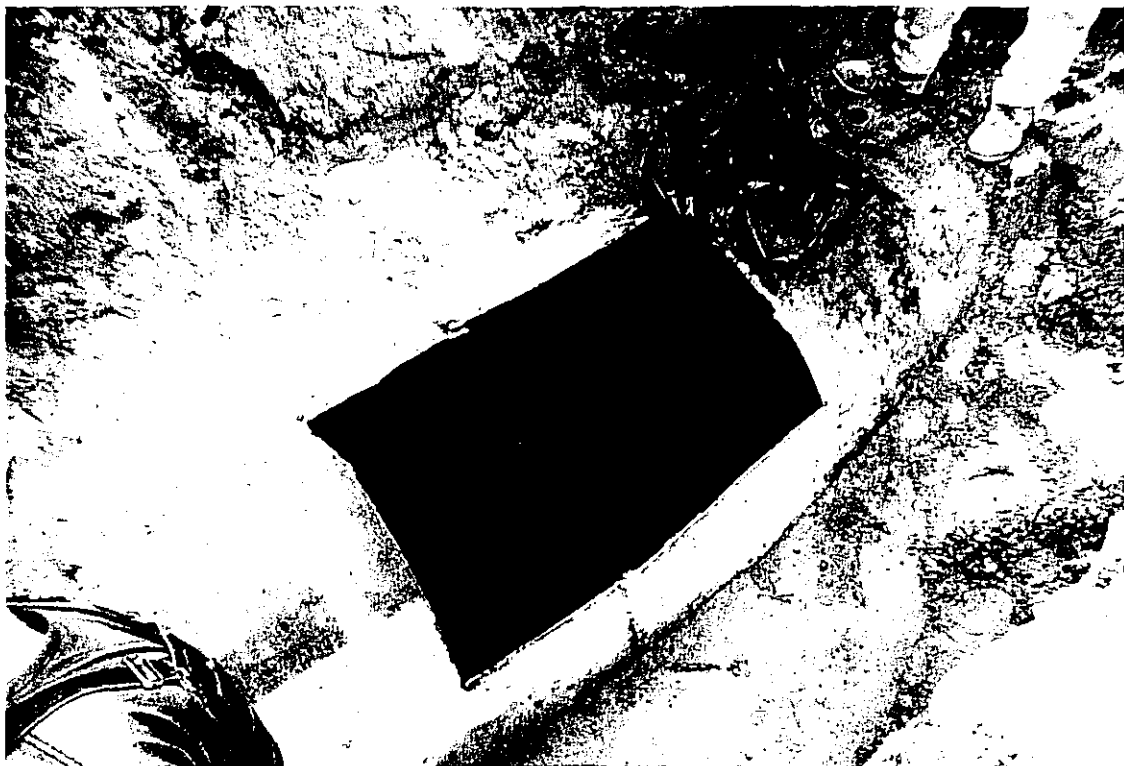


PHOTO 2: View of the cleaned interior of UST-9162 just prior to removing the tank from the ground (looking southeast).



PHOTO 3: View of the sampling locations in the UST-9162 excavation (looking north).

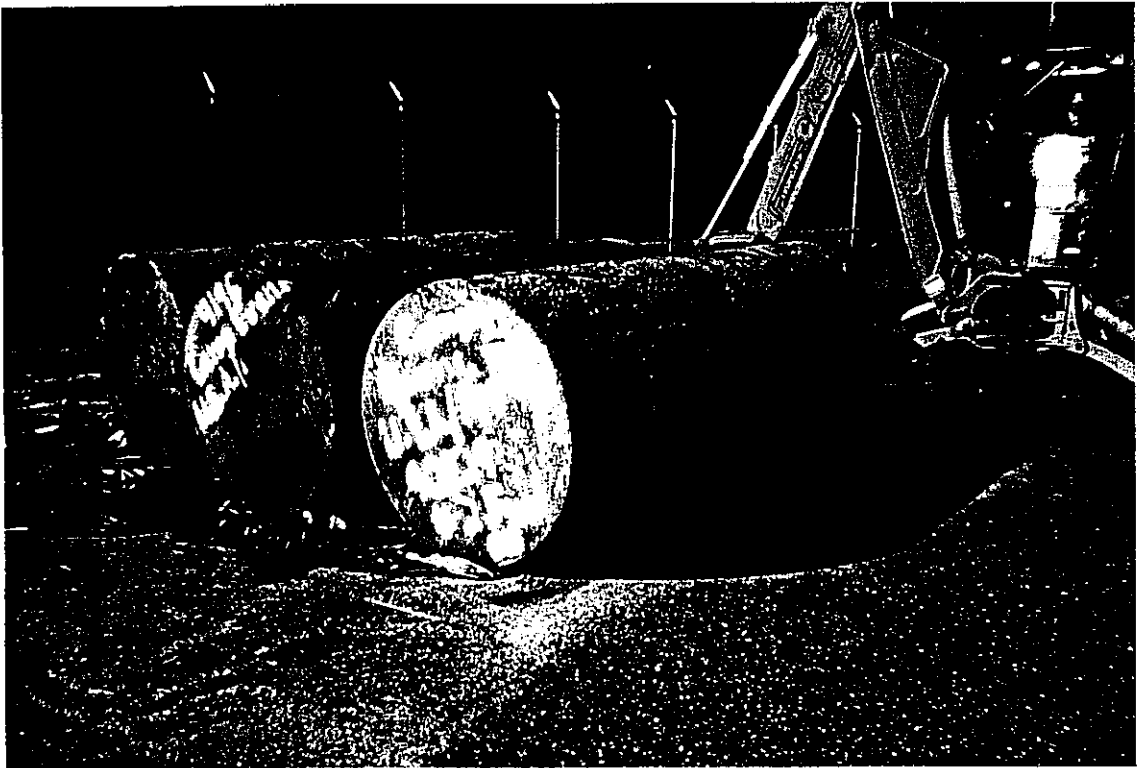


PHOTO 4: View of UST-9162 staged to the south of Building 9162 awaiting removal to Building 9061 (to await permanent disposal) and labeled with all required information.

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA PACKAGE

UST NO. 192468-4

APPENDIX D

UST DISPOSAL CERTIFICATE

UST NO. 192468-4



Reorder From:
The Drawing Board
P.O. Box 2044 - Hartford, CT 06104-2044
Call Toll Free: 1-800-827-0020

REORDER ITEM # BLN74

STRAIGHT BILL OF LADING
ORIGINAL - NOT NEGOTIABLE

Shipment No. 002

Carrier No. _____

Date _____

SMC ENVIRONMENTAL SERVICES GROUP
(Name of Consignor)

To: Consignee <u>Mazza + Sons, INC.</u>	From: Shipper <u>U.S. Army Camp Evans</u>
Street: <u>3230 Shatto Road</u>	Street: <u>Building 9162</u>
City/State: <u>Tuxton Falls, NJ 07753</u>	City/State: <u>Wall, NJ 07719</u>

No. of Packages (Units)	Weight (Lbs)	Kind of Packaging, Description of Articles, Special Marks and Instructions	Volume (Cubic Feet)	Rate	Charges
①		<u>FOR SAMP ONLY</u> <u>1-1,000 Gallon U.S.F. Tank</u> <u>"Clam"</u> <u>TANK # 192468-4</u> <u>Building # 9162</u>			

REMIT C.O.D. TO: ADDRESS	COD Amt: \$	C.O.D. FEE: PREPAID <input type="checkbox"/> \$ COLLECT <input type="checkbox"/>
NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby verified and agreed to by the shipper.	This is to certify that the above named article is a property described, as written, packed, marked and loaded, and is in proper condition for transportation according to the regulations of the Department of Transportation.	TOTAL CHARGES: \$
Signature _____	Signature of Consignor _____	PRINTED CHARACTERS: THIS BILL OF LADING IS VALID ONLY IF THE ORIGINAL IS PRESENT AND NOT A COPY.

RECEIVED, subject to the classification and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown, marked, numbered, and described as indicated above which paid carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER <u>U.S. Army Camp Evans</u>	CARRIER <u>SMC ENVIRONMENTAL SERVICES GROUP</u>
PER <u>David H. Daines (Agent)</u>	PER <u>Mack C. Spahn</u>
DATE <u>10/13/97</u>	

*Mark with "X" to designate hazardous material as defined in Title 49 of the Code of Federal Regulations.
Reorder Form 90LN74 The Drawing Board, P.O. Box 2044, Hartford, CT 06104-2044
©-EGL, 1992, Printed in U.S.A.

sent by: SMC ENVIRONMENTAL SER 6103371875
 09/17/97 3:06PM Job 583
 Page 6/7

②

2

SMC Environmental Services Group

A Subsidiary of Science Management Corporation
P.O. Box 859
Valley Forge, Pennsylvania 19482
Telephone (610) 265-2700

CERTIFICATE OF NON-HAZARDOUS VESSEL

FACILITY: Camp Evans (U.S. Army)
Wall, NJ
Building 9162
VESSEL: 1,000 gallon steel tank
(Formerly #2 Fuel Oil)

This letter is to confirm that the vessel/vessels at the above referenced location has been physically entered (if necessary), degreased, washed/cleaned, and the material contained within has been completely removed and properly disposed. As of 3:00 A.M./P.M. on 9/15/97, the above said vessel is certified gas free and has been cleaned following recommended procedures in API PUBLICATION 2015. Due to conditions that SMC Environmental Services Group has no control over, this certification is valid only until the vessel is received by the designated steel recycling facility. SMC Environmental Services Group will not be held liable for any damages which may occur after certification.

**SMC ENVIRONMENTAL SERVICES GROUP
SIGNATURE OF CERTIFICATION**

David H. Daniels / SMC
Signature

David H. Daniels / site manager
Print or Type Name Here

APPENDIX E

**WASTE MANIFEST FOR
OFF-SITE TRANSPORT OF UST CONTENTS
UST NO. 192468-4**



RD1 Box 5A
Old Bridge, N.J. 08857
(908) 721-0900
Fax (908) 721-0231

STANDARD
COLLECTION
ORDER FORM

176848

GENERATOR/LOCATION _____ SALES ORDER # _____

BILL TO (IF DIFFERENT FROM LOCATION) _____

NAME _____
INFORMATION/ATTENTION LINE _____ ACCOUNT APPROVAL CODE _____
DELIVERY ADDRESS _____
CITY _____ STATE _____ ZIP _____
PHONE NUMBER _____ PURCHASE ORDER NUMBER _____
USA EPA ID NO. (IF APPLICABLE) _____ STATE ID NO. _____

NAME _____
INFORMATION/ATTENTION LINE _____ ACCOUNT APPROVAL CODE _____
DELIVERY ADDRESS _____
CITY _____ STATE _____ ZIP _____
PHONE NUMBER _____ PURCHASE ORDER NUMBER _____
MANIFEST NUMBER NR 79190

SHIPPING INFORMATION

This is to certify that the below 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.

NO. _____ TYPE _____ QTY. _____ UNIT _____ US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) Combustible Liq. 1 UN 120 PG 111 SALES REPRESENTATIVE SA

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	Tank	Volume
40500	USED OIL REMOVAL						
40300	ANTI-FREEZE REMOVAL					9307	55
40600	USED OIL FILTER REMOVAL						
40501	OILY WATER DISPOSAL		344	Gal		9162	55
40502	SLUDGE DISPOSAL						
41001	GASOLINE/WATER						
1501	DRUM DISPOSAL					9196	55
41504	TANK ENTRY						
40800	PARTS WASHER SERVICE					9116	55
41500	TRUCK OPERATOR		800	1.00	800		
41511	NEW 55 GAL DRUM WITH					9003	30
41503	QAQC ANALYTICAL TESTING						
42001	DEXSIL TEST KIT TAX					9006	200
41509	TRANSPORTATION					9059	30
						9031	30

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION. \$ _____

INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/4% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES.

GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED LORCO HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

Generator certifies that the waste is Non-Haz
In accordance the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

Print Name Charles Appleby Title Env. Prod. Mgr.
Signature [Signature] Date 10-7-97
GENERATOR/CUSTOMER

SMALL QUANTITY TOTAL GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C.F.R. 261, and does not accumulate more than 1,000 kilograms of such waste during the month.

GENERATOR'S SIGNATURE _____

LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT TEST RESULTS _____ PPM

Tank to the North of 9028 had 344 gallons of water

PAYMENT RECEIVED SECTION

CASH TOTAL RECEIVED _____
CHECK NUMBER _____

CUSTOMER SERVICED EVERY 30 DAYS

In accordance with 40 CFR 266 § 43(5) LORCO has notified the US EPA of its location and used of management activities.

Print Name [Signature]
Signature [Signature] Date 10-7-97
LORCO REPRESENTATIVE

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

*Building 9196
Camp Evans Area*

NJDEP UST Registration No. 192468-5

TABLE OF CONTENTS

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1.2 Underground Storage Tank Excavation And Cleaning	3
1.3 Underground Storage Tank Transportation And Disposal.....	3
1.4 Management Of Excavated Soils.....	4
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2.2 Soil Sampling.....	5
3.0 SOIL SAMPLING RESULTS	6
4.0 CONCLUSIONS AND RECOMMENDATIONS.....	7

TABLES

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

FIGURES

Figure 1	Building 9196 - UST Removal Location Map
Figure 2	Building 9196 - UST Removal and Soil Sample Locations
Figure 3	Building 9196 - UST Remedial Soil Sample Locations

APPENDICES

Appendix A	Signed Site Assessment Summary
Appendix B	Photographs of UST Closure
Appendix C	Soil Sample Analytical Data Package
Appendix D	UST Disposal Certificate
Appendix E	Waste Manifest for Off-site Transport of UST Contents

EXECUTIVE SUMMARY

UST Closure

On September 17, 1997, a steel underground storage tank (UST) was closed by removal at the Camp Evans area of the U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 192468-5 (Fort Monmouth Identification No. 9196), was located west of Building 9196 in the Camp Evans area of Fort Monmouth. The UST was a 1,000-gallon No. 2 fuel oil tank. The UST fill port was located directly above the southern end of the tank.

Site Assessment

The site assessment was performed by Tetra Tech EM Inc. (Tetra Tech) and SMC Environmental Services Group (SMC). One hole approximately 0.125-inch in diameter was noted in the northeast corner of the UST and both visual observations and instrument readings revealed evidence of contaminated soil surrounding the tank. Samples collected at the time the UST was removed contained total petroleum hydrocarbons (TPHC) concentrations ranging from non-detect to 18,373.32 milligrams per kilogram (mg/kg). After additional soil was excavated and removed, soil remaining in the excavation contained concentrations of TPHC ranging from non-detect to 187.48 mg/kg. The total amount of soil removed from the excavation was approximately 100 cubic yards.

Site Restoration

After receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with clean native soil from the Building 9196 area, as well as clean soil imported from the New Jersey Sand and Gravel Company. The excavation site was then restored to its original condition.

Conclusions and Recommendations

Based on the second round of post-excavation soil sampling results, TPHC concentrations in soil do not exceed the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent soil cleanup criteria of 1,000 mg/kg TPHC used by Fort Monmouth, at the former location of the UST or associated piping. No further action is proposed with regard to the closure and site assessment of UST No. 192468-5 at Building 9196.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 192468-5, was closed at Building 9196 at the Camp Evans area of U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey on September 17, 1997. The UST was a steel 1,000-gallon tank containing No. 2 fuel oil.

The UST removal was performed in accordance with the Fort Monmouth UST Management Plan (S.O.P. Number 19), which had previously been approved by the NJDEP. The signed site assessment summary form for UST No. 192468-5 is included in Appendix A.

Based on an inspection of the UST, field screening of subsurface soil, and soil sample analytical results, Tetra Tech has concluded that at least one significant historical discharge was associated with UST No. 192468-5 or associated piping.

This report was prepared based on information collected at the time of UST closure. Section 1 of this UST closure and site investigation report provides a site description and summarizes UST removal activities. Section 2 describes site investigation activities, including field screening and soil sampling. Section 3 presents the post-excavation soil sampling results. Conclusions and recommendations are presented in Section 4 of this report.

1.1 SITE DESCRIPTION

Building 9196 is located in the Diana Radar Section of the Camp Evans area of the Fort Monmouth Army Base as shown in Figure 1. UST No. 192468-5 was located west of Building 9196 and associated piping ran approximately 8 feet east from the UST to Building 9196. The UST fill port area was located directly above the southern end of the tank. A site map is provided in Figure 1 showing the location of the UST removal relative to Building 9196.

1.2 UNDERGROUND STORAGE TANK EXCAVATION AND CLEANING

Prior to UST decommissioning activities, surficial soil was excavated to expose the UST and associated piping. All free product present in the piping was purged with compressed air into the UST. The UST was not purged prior to the removal of the piping because of the low volatility of No. 2 fuel oil. After the removal of associated piping, soil excavation continued to uncover the UST. Once the UST was uncovered, SMC cut open the tank with a nonsparking pneumatic cutter and removed the remaining contents of the tank with drum vacuum equipment. SMC completed cleaning the UST by wiping the interior out with oil absorbent pads.

After the UST was cleaned, it was removed from the excavation, staged on polyethylene sheeting, and examined for holes. One hole was observed in the northeast corner of the UST by the Tetra Tech site manager and the SMC subsurface evaluator. Appendix B provides photographs of the tank. Soil around the UST was screened visually and with a photoionization detector (PID) and flame ionization detector (FID) for contamination. Soil contamination was observed or detected by the PID/FID located adjacent to the southwestern corner and the east end of the UST. Visual and PID/FID soil screening was also performed along piping associated with the UST. No contamination was noted anywhere along the piping length.

The sludges and tank residues removed from the UST were transported by Lorco Petroleum Company to its NJDEP-approved petroleum recycling and disposal facility in Old Bridge, New Jersey. Appendix D provides a copy of the bill of lading for the off-site transport of the tank contents.

1.3 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The cleaned tank was transported to Mazza and Sons, Inc. in Tinton Falls, New Jersey for disposal in compliance with all applicable regulations and laws. Appendix E provides a copy of the UST Disposal Certificate. Prior to transport, the UST was labeled with the following information:

- Site of origin
- Contact person
- NJDEP UST facility identification number
- Name of transporter and contact person
- Destination site and contact person

1.4 MANAGEMENT OF EXCAVATED SOILS

Post-excavation soil sampling locations are shown in Figures 2 and 3 and discussed in Section 2.2. Based on PID/FID air monitoring results and total petroleum hydrocarbon (TPHC) results from post-excavation soil samples, soil at the 9196B1, 9196E, and 9196N sampling locations was contaminated. After additional excavation was performed and post-excavation sampling results confirmed that the contaminated soil had been removed, the clean excavated soil and imported clean fill were used to backfill the UST excavation. Contaminated soil was removed to the staging area for disposal off site at a later date.

2.0 SITE INVESTIGATION ACTIVITIES

In accordance with NJDEP's "Technical Requirements for Site Remediation" and "Field Sampling Procedures Manual," Tetra Tech and SMC personnel conducted the site assessment. The site investigation was managed by Tetra Tech and performed by SMC. All analyses were performed and results reported by the U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory operated by TECOM-Vinnell Services, Inc. (TVS). All sampling was performed under the direct supervision of a NJDEP certified subsurface evaluator in accordance with methods described in NJDEP's "Field Sampling Procedures Manual" dated 1992. Sampling frequency and parameters analyzed complied with applicable regulations at the date of UST closure specified in NJDEP-BUST's document "Interim Closure Requirements for Underground Storage Tank Systems" dated October 1990; revisions dated November 1, 1991. All records of site investigation activities are maintained by Tetra Tech and the Fort Monmouth Department of Public Works (DPW) Environmental Office.

The following parties participated in UST closure and site investigation activities:

- Subsurface Evaluator: David H. Daniels
Employer: SMC Environmental Services Group
Telephone No.: (610) 265-2700
NJDEP Certification No.: 0010279
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Telephone No.: (732) 532-4359
NJDEP Company Certification No.: 13461
- Hazardous Waste Hauler: Lorco Petroleum Company
Contact Person: Dan MacKay
Telephone No.: (732) 721-0900
NJDEP Hazardous Waste Hauler No.: S6247

2.1 FIELD SCREENING/MONITORING

Visual screening and field screening using a PID/FID were performed by a NJDEP certified subsurface evaluator to identify potentially contaminated material. Soil excavated from adjacent to the southwest corner and the eastern end of the UST, as well as the UST excavation sidewalls and bottom, exhibited evidence of contamination; however, soil excavated from the area of the associated piping did not exhibit indications of contamination.

2.2 SOIL SAMPLING

On September 19, 1997, after UST removal, post-excavation soil samples 9196B1, 9196B2, 9196B3 (Duplicate of 9196B2), 9196S, 9196W, 9196E, 9196N, and 9196RF were collected from seven locations in the UST excavation. Figure 2 presents the sampling locations. Excavation sidewall samples were collected at the edge of the former UST location, and bottom samples were collected from 0 to 6-inches beneath the former UST location, or 7 to 7.5-feet below ground surface (bgs). The sidewall samples were collected from 6.5 to 7-feet bgs. Sample 9196RF was collected from next to Building 9196 along the former return/feed line piping length of the excavation, which was approximately 8 feet long. Sample 9196RF was collected from 0.5 to 1-foot bgs. Samples 9196OBS was collected from the overburden soil pile to verify that the pile was not contaminated and could be used as clean backfill for the excavation. All samples were analyzed for TPHC and total solids.

Analytical results for the original post-excavation samples revealed 15,028.64 milligrams per kilograms (mg/kg) TPHC at the 9196B1 sample location, 13,158.85 mg/kg TPHC at the 9196E sample location, and 18,373.32 mg/kg TPHC at the 9196N sample location. These concentrations exceed 1,000 mg/kg TPHC, which is NJDEP's criterion for additional soil removal/remediation or for required VOC sampling. As a result, on October 10, 1997, Tetra Tech and SMC excavated additional soil from the bottom of the excavation and the north, south, and west sidewalls. After the additional soil excavation, post-excavation soil samples 9196S21, 9196S22, 9196S23, 9196B21, 9196B22 (Duplicate of 9196B21), 9196B23, 9196W2, 9196E2, 9196N21, 9196N22, 9196N23, AND 9196B24 were collected from a total of eleven sampling locations. The bottom samples were collected from a depth of 9.5 to 10-feet bgs (samples 9196B21 through 9196B23) and 12.5 to 13-feet bgs (sample 9196B24). The sidewall samples were collected from a depth of 8.5 to 9-feet bgs (samples 9196S21 through 9196S23), 9 to 9.5-feet (samples 9196W2 and 9196E2), 10 to 10.5-feet bgs (sample 9196N21), and 12.5 to 13-feet samples 9196N22 and 9196N23). In addition, samples 9196OBS21 and 9196OBS22 were collected from two locations on the

expanded overburden soil pile to verify that the pile was not contaminated and could be used as clean backfill for the excavation. Figure 3 presents the additional post-excavation sampling locations.

Post-excavation soil samples were collected in accordance with standard sampling procedures specified in NJDEP's "Field Sampling Procedures Manual" dated 1992. Samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory in Fort Monmouth, New Jersey, for analysis. A summary of post-excavation sampling activities, including parameters analyzed for, is provided in Table 1.

3.0 SOIL SAMPLING RESULTS

To evaluate soil conditions after removal of the UST and associated piping, post-excavation soil samples were collected from seven locations on September 19, 1997. All samples were analyzed for TPHC and total solids. Post-excavation sampling results were compared to the NJDEP residential direct contact soil cleanup criterion of 10,000 mg/kg for total organic contaminants (N.J.A.C. 7:26D and revisions dated February 3, 1994) and the more stringent soil cleanup criterion of 1,000 mg/kg TPHC used by Fort Monmouth. A summary of the analytical results and comparison to the NJDEP soil cleanup criterion is provided in Table 2. Soil sampling locations are shown in Figures 2 and 3. The analytical data package is provided in Appendix D.

Three of the post-excavation soil samples collected on September 19, 1997, from the UST excavation contained concentrations of TPHC ranging from 13,158.85 mg/kg to 18,373.32 mg/kg. These results were above the NJDEP soil cleanup criterion of 1,000 mg/kg TPHC, requiring additional soil removal remediation or required volatile organic compound (VOC) sampling. The remainder of the samples contained TPHC concentrations from non-detect to 559.66 mg/kg.

As a result, additional soil excavation and post-excavation sampling was conducted on October 10, 1997 (see Section 2.2). All samples from the eleven sampling locations contained TPHC concentrations ranging from non-detect to 187.48 mg/kg.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results for all post-excavation soil samples for soil remaining in the UST excavation at Building 916 were below the NJDEP soil cleanup criterion for required VOC analysis.

Based on post-excavation sampling results, soil containing TPHC concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent Fort Monmouth soil cleanup criterion of 1,000 mg/kg TPHC, no longer exist in the former location of the UST or associated piping; therefore, no further action is proposed with regard to the closure and site assessment of UST No. 192468-5 at Building 9196.

Legend of Sample Identifications
Camp Evans Area
Wall Township, New Jersey

B	Sample from the bottom of the excavation
W	Samples from the west sidewall of the excavation
E	Samples from the east sidewall of the excavation
N	Samples from the north sidewall of the excavation
S	Samples from the south sidewall of the excavation
RF	Sample from beneath the former location of the return/feed lines of the UST
VL	Sample from beneath the former location of the vent line to the UST
OBS	Sample from the overburden soil pile of a UST excavation to determine if the soil can be used as backfill or must be transported to the contaminated soil stockpile
N21	Sample collected from the north sidewall on the second day of sampling (from a particular UST excavation) first sample (from that particular sidewall or area of the excavation) (NOTE: The "21" designation can be used with any of the letter combinations listed above).
FPS	Soil located directly adjacent to the fill port of the tank ("Fill Port Soil").
BFP	Soil located beneath the fill port of the tank ("Beneath Fill Port")
9116CSP	Contaminated soil pile from the UST-9116 excavation
DS	Deep Sample
9196BE1A	Geoprobe boring performed on the east side of the UST-9196 excavation to investigate contamination from the leaking UST. Last number denotes the boring number and last letter indicates which sample in the sequence.
RFL/B6	Sample from remedial excavation of a leaking remote fill line/what area of the excavation the sample was collected.
RF(CT)	Samples was collected from return feed lines consisting of copper tubing.
RFL(2)	Samples collected from a second remote fill line for a particular UST excavation
RB1	Remedial excavation for a particular building. The second letter and number designate the particular area of the excavation where the sample was collected
CNFRM	Confirmatory sample to confirm that contamination has been removed
CNFM	Another designation for a confirmatory sample
R/F/VL	Return/feed/vent lines. Used at buildings where the return/feed lines and the vent lines were located close together and one sample could be collected for both lines
SCNT1	Sample collected at a location of suspected contamination
(W)E1	Sample collected from the eastern sidewall of the western half of the excavation (remedial excavation).
TP	Test pit/trench
HWAB	Hazardous waste area building (former location)
AST	Above ground storage tank
9105ASTB1	Sample collected at the former location of an AST at the specified building
DEL	Delineation sample to document the extent of contamination
SD	Sample collected from a storm drain
SW	Sample collected from a sidewall of a remedial excavation
CTR	Copper tubing run
CSP-1	Clean soil pile

Table 1
 Summary of Post-Excavation Sampling Activities
 Building 9196, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9196OBS	9/17/97	9/18/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196B1	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196S21**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196S22**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196S23**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196B21**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196B22**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196B23**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196W2**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196B2	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196B3	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196W	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196S	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196E	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196E2**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196N21**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196N	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196N22**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196N23**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196N24**	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196RF	9/19/97	9/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196BE1A	10/3/97	10/6/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196BE1B	10/3/97	10/6/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196BE1C	10/3/97	10/6/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196BE1D	10/3/97	10/6/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196BE1E	10/3/97	10/6/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196BE1F	10/3/97	10/6/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9196OBS21	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9096OBS22	10/10/97	10/14/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

** Samples collected to remediate contamination found in sample above.

Table 2
 Post-Excavation Soil Sampling Results
 Building 9196, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9196OBS	2999.12	9/17/97	9/18 - 19/97	TPHC	195	559.66	10,000	No
9196B1	3004.13	9/19/97	9/22 - 24/97	TPHC	154	15,028.64	10,000	Yes
9196S21**	3061.01	10/10/97	10/14 - 15/97	TPHC	161	187.48	10,000	No
9196S22**	3061.02	10/10/97	10/14 - 15/97	TPHC	160	ND	10,000	No
9196S23**	3061.03	10/10/97	10/14 - 15/97	TPHC	155	ND	10,000	No
9196B21**	3061.04	10/10/97	10/14 - 15/97	TPHC	173	ND	10,000	No
9196B22**	3061.05	10/10/97	10/14 - 15/97	TPHC	177	ND	10,000	No
9196B23**	3061.06	10/10/97	10/14 - 15/97	TPHC	177	ND	10,000	No
9196W2**	3061.07	10/10/97	10/14 - 15/97	TPHC	157	ND	10,000	No
9196B2	3004.14	9/19/97	9/22 - 24/97	TPHC	156	221.67	10,000	No
9196B3	3004.15	9/19/97	9/22 - 24/97	TPHC	157	523.64	10,000	No
9196W	3004.16	9/19/97	9/22 - 24/97	TPHC	149	183.81	10,000	No
9196S	3004.17	9/19/97	9/22 - 24/97	TPHC	169	ND	10,000	No
9196E	3004.18	9/19/97	9/22 - 24/97	TPHC	161	13,158.85	10,000	Yes
9196E2**	3061.08	10/10/97	10/14 - 15/97	TPHC	170	ND	10,000	No
9196N21**	3061.09	10/10/97	10/14 - 15/97	TPHC	163	174.01	10,000	No
9196N	3004.19	9/19/97	9/22 - 24/97	TPHC	156	18,373.32	10,000	Yes
9196N22**	3061.10	10/10/97	10/14 - 15/97	TPHC	166	ND	10,000	No
9196N23**	3061.11	10/10/97	10/14 - 15/97	TPHC	174	ND	10,000	No
9196B24**	3061.12	10/10/97	10/14 - 15/97	TPHC	186	ND	10,000	No
9196RF	3004.20	9/19/97	9/22 - 24/97	TPHC	172	482.61	10,000	No
9196BE1A	3031.01	10/3/97	10/6 - 8/97	TPHC	163	ND	10,000	No
9196BE1B	3031.02	10/3/97	10/6 - 8/97	TPHC	154	ND	10,000	No
9196BE1C	3031.03	10/3/97	10/6 - 8/97	TPHC	175	ND	10,000	No
9196BE1D	3031.04	10/3/97	10/6 - 8/97	TPHC	159	ND	10,000	No
9196BE1E	3031.05	10/3/97	10/6 - 8/97	TPHC	159	225.48	10,000	No
9196BE1F	3031.06	10/3/97	10/6 - 8/97	TPHC	170	246.34	10,000	No
9196OBS21	3061.13	10/10/97	10/14 - 15/97	TPHC	170	ND	10,000	No
9196OBS22	3061.14	10/10/97	10/14 - 15/97	TPHC	169	ND	10,000	No

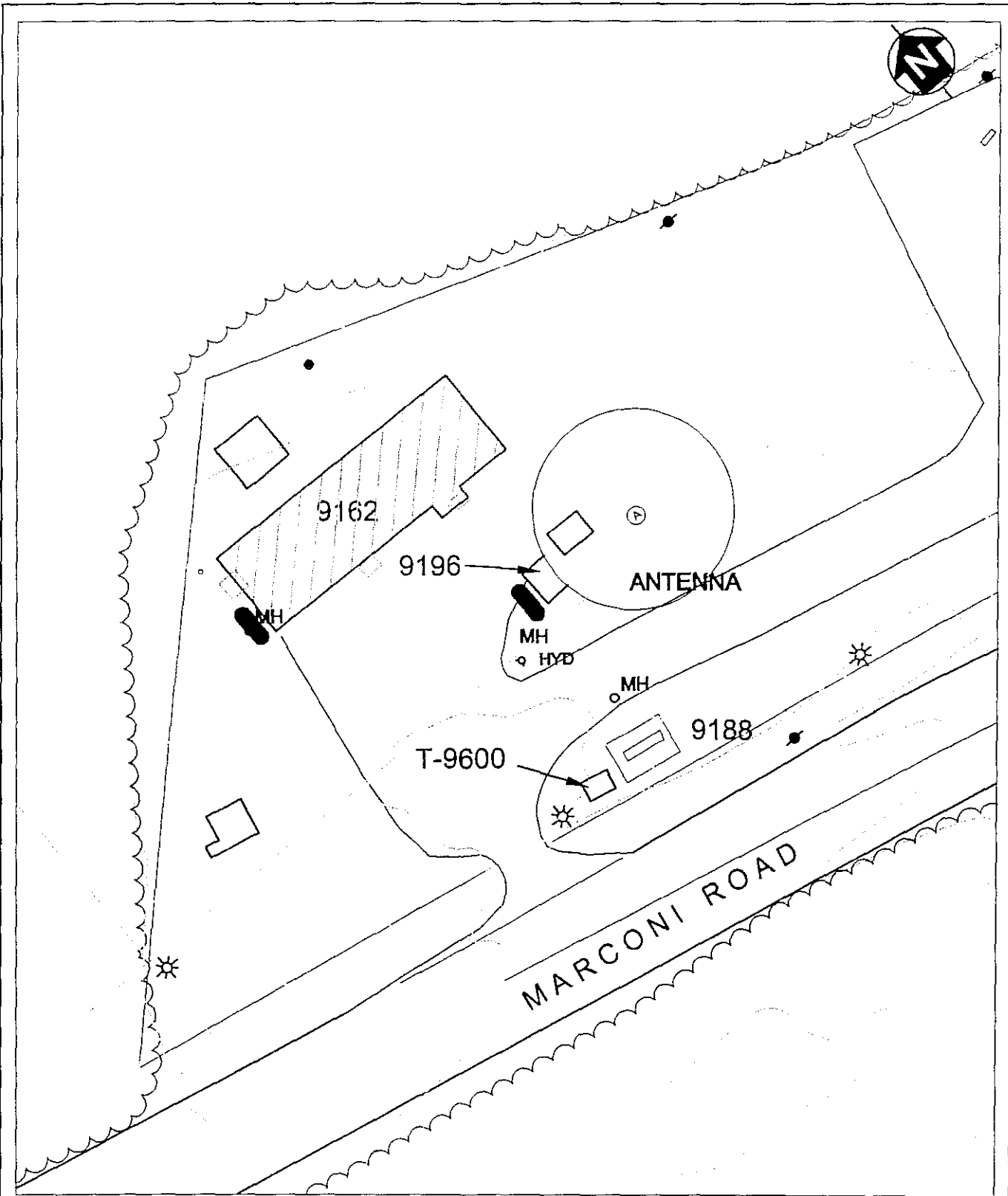
Note:

* Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.

ND Not detected

TPHC Total petroleum hydrocarbons

** Samples collected to remediate contamination found in sample above.



9196.DWG ASC 01/19/99

 UNDERGROUND STORAGE TANK

20 0 20 40
SCALE

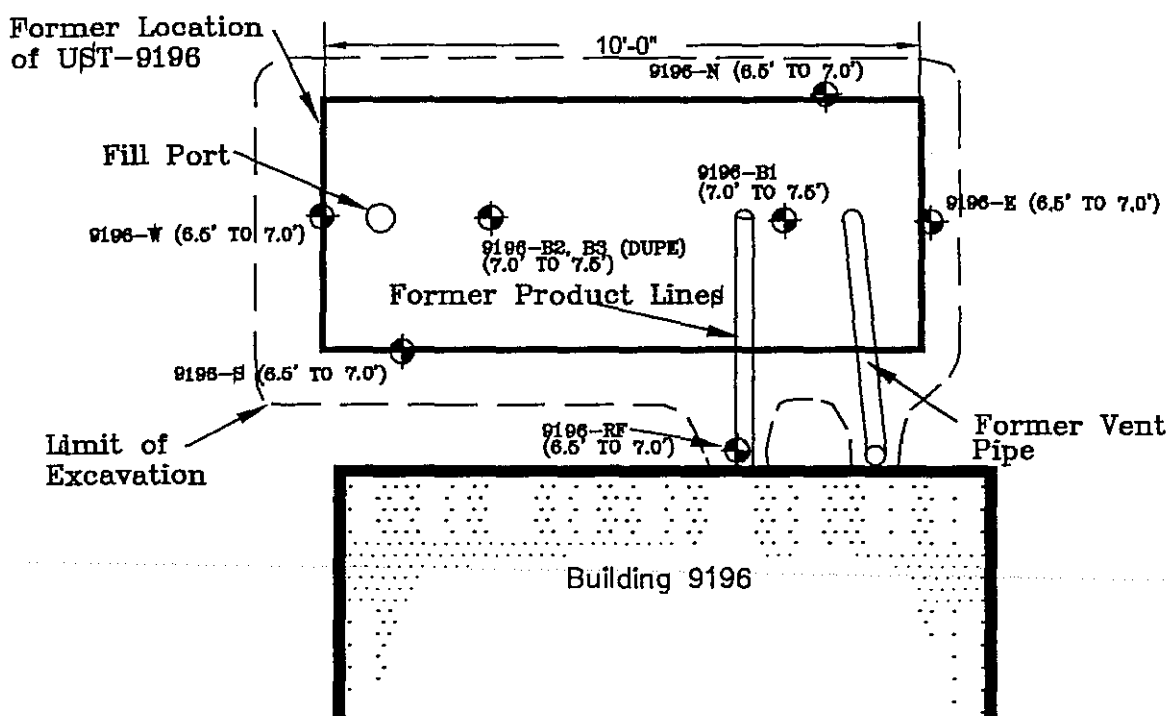
EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 1
BUILDING 9196 - UST REMOVAL LOCATION MAP

 TETRA TECH EM INC.



SITE NORTH (TOWARD
MONMOUTH BOULEVARD)



NOTE: All sample designations are preceded by "UST-9196".

NOTES:

- 1) ALL SAMPLE DESIGNATIONS ARE PRECEDED BY "9196-"
- 2) SAMPLE DEPTHS:
 - A) S21, S22, S23: 8.5' TO 9.0'
 - B) B21, B22, B23: 9.5' TO 10.0'
 - C) W2, E2: 9.0' TO 9.5'
 - D) N21: 10.0' TO 10.5'
 - E) N22, N23, B24: 12.5' TO 13.0'
 - F) OBS21, OBS22: PILE
- 3) SAMPLE IDS WERE ASSIGNED BASED ON SITE NORTH TOWARD MONMOUTH BOULEVARD



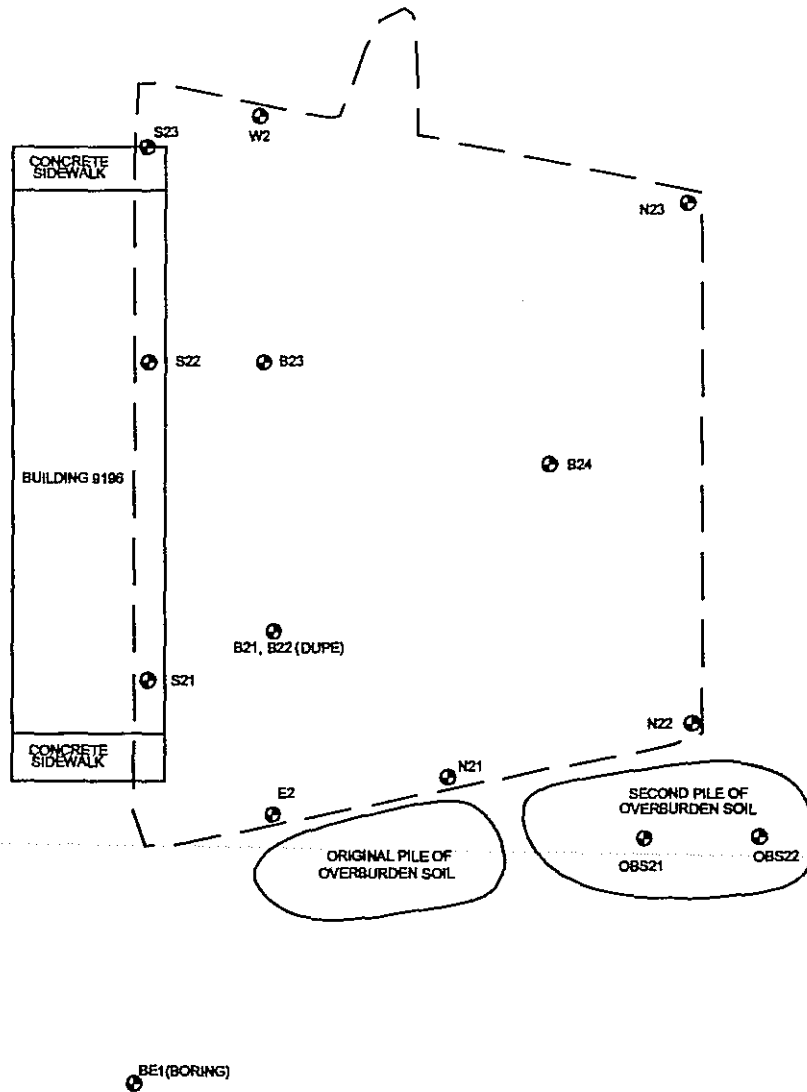
EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 2
BUILDING 9196
UST REMOVAL AND SOIL SAMPLE LOCATIONS

 TETRA TECH EM INC.



SITE NORTH (TOWARD
MONMOUTH BOULEVARD)



NOTES:

1) ALL SAMPLE DESIGNATIONS ARE PRECEDED BY "9196-"

2) SAMPLE DEPTHS:

- A) S21, S22, S23: 8.5' TO 9.0'
- B) B21, B22, B23: 9.5' TO 10.0'
- C) W2, E2: 9.0' TO 9.5'
- D) N21: 10.0' TO 10.5'
- E) N22, N23, B24: 12.5' TO 13.0'
- F) OBS21, OBS22: PILE

3) SAMPLE IDS WERE ASSIGNED BASED ON SITE NORTH
TOWARDS MONMOUTH BOULEVARD



EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 3
BUILDING 9196 - UST REMEDIAL
SOIL SAMPLE LOCATIONS

 TETRA TECH EM INC.

APPENDIX A

SIGNED SITE ASSESSMENT SUMMARY FORM

UST NO. 192468-5

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: US Army, Fort Monmouth, Evans Area

Facility Street Address: Building 1207, DCSOPS-BID

Municipality: Wall Township County : Monmouth

Block: 240, 241 and 242 Lot(s): 240 (55.01, 55.02, 55.03 & 55.04), 241 (1), 242 (1.01 & 1.02)

Telephone Number : (732) 239-2427

B. Owner (RP)'s Name: US Army, CECOM

Street Address: DCSOPS-BID, Bldg. 1207 City : Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-5052

C. (Check as appropriate)

- Site Investigation

Report (SIR) \$500 Fee

- Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager : Mr. Ian Curtis
- UST Registration Number : (7 digits): ~~90029~~ - 192468-5
- Incident Report Number (10 or 12 digits): _____
- Tank Closure Number C(N)9 (7 characters): Approved by Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E : Yes

Name: Kevin J. Phelan Signature: Kevin J. Phelan UST Cert. No.: 0018436

Firm: Tetra Tech EM, Inc. Firm's UST Cert. Number: US00457

Firm Address: 1 Bank Street, Suite 103 City: Rockaway

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

State: NJ

Zip: 07866

Telephone Number : (973) 9830507, Ext. 230

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

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

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

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

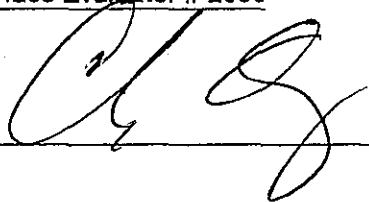
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true,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

Name (Print or Type): Mr. Charles Appleby

Title: BRAC Environmental Coordinator, Evans Area

NJDEP Subsurface Evaluator # 2056

Signature: _____



Company Name: US Army, CECOM, DCSOPS-BID, Fort Monmouth NJ, 07703

Date: November 30, 2000

APPENDIX B

PHOTOGRAPHS OF UST CLOSURE

UST NO. 192468-5

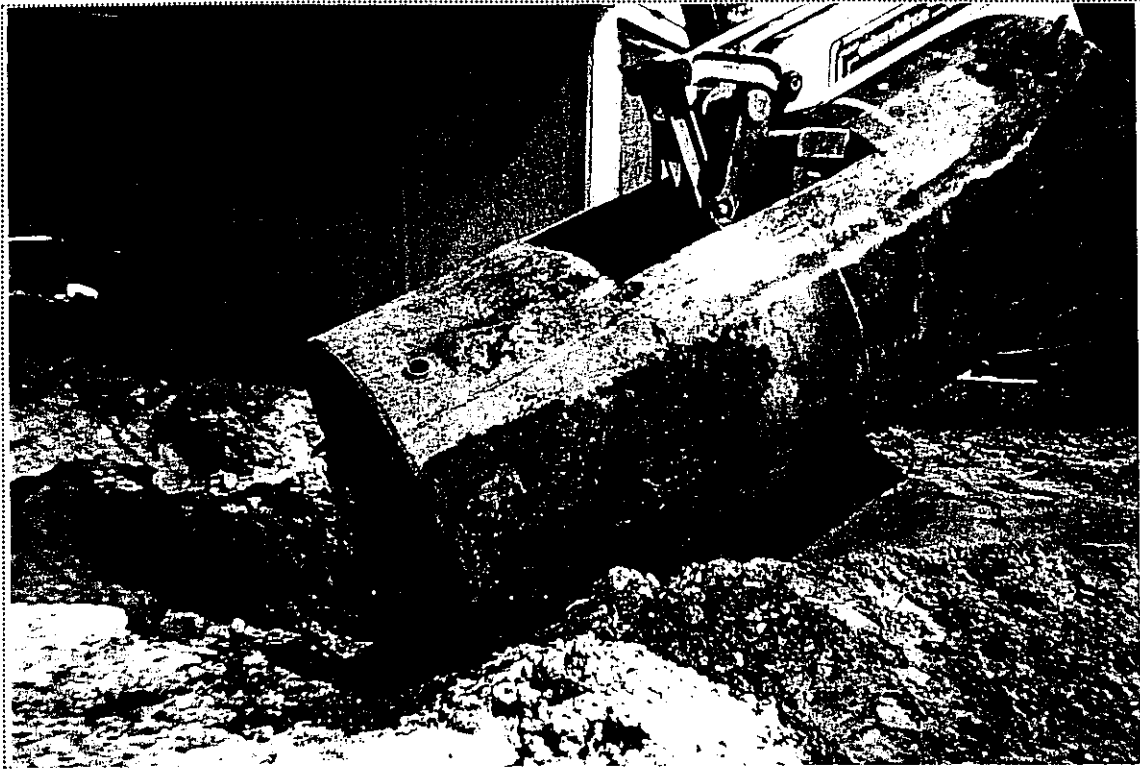


PHOTO 1: View of the UST-9196 being removed from the ground (looking south/southeast).



PHOTO 2: View of the sampling locations in the UST-9196 excavation (looking east).

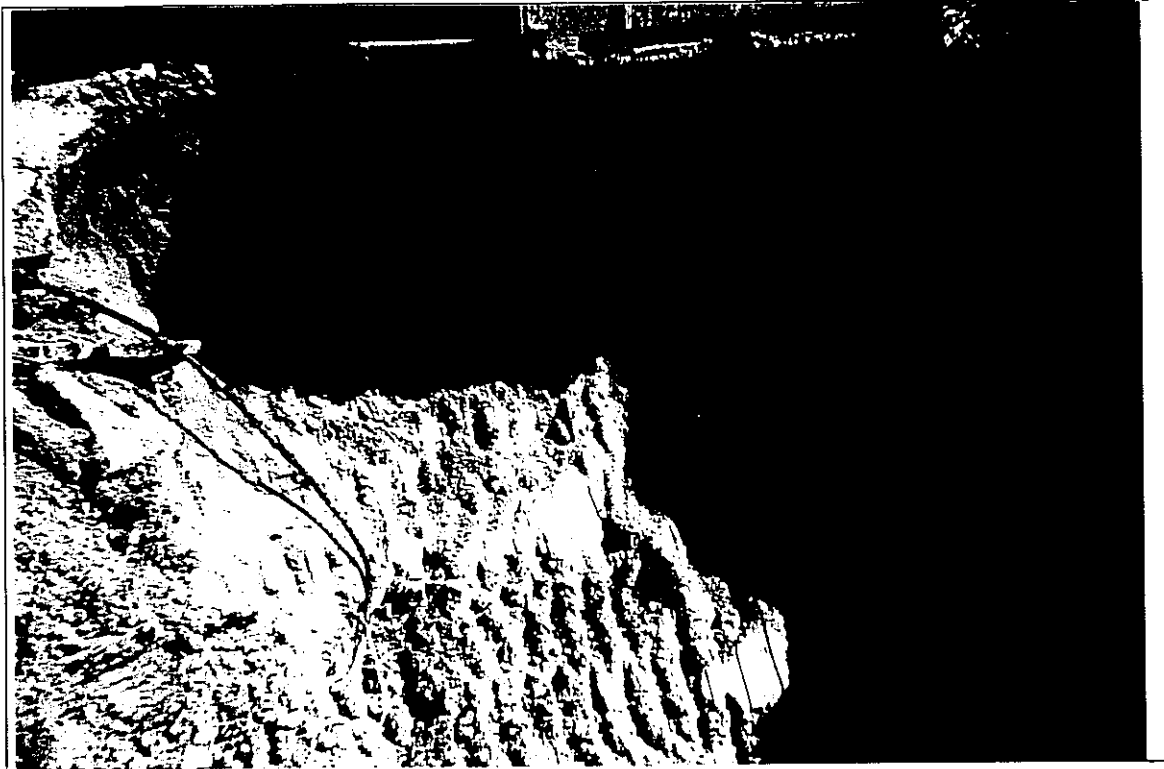


PHOTO 3: View of the sampling locations in the UST-9196 remedial excavation (looking south/southwest).

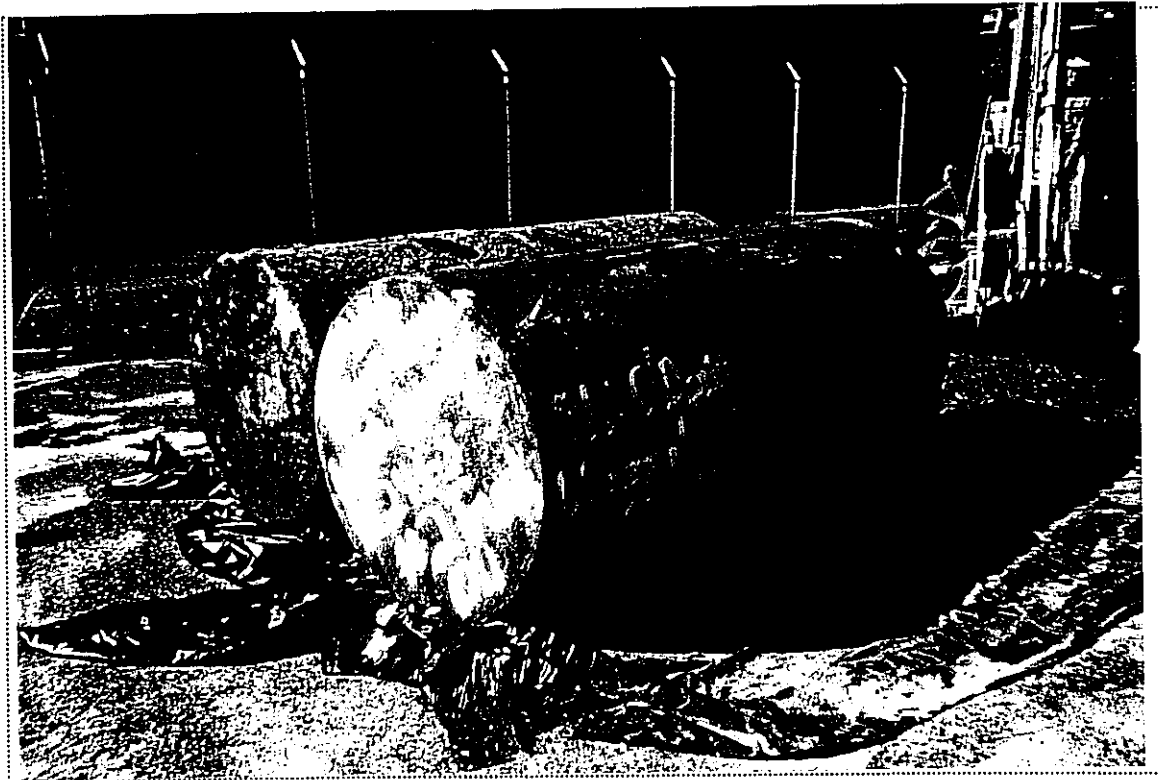


PHOTO 4: View of UST 9196 staged to the south of Building 9062 awaiting removal to Building 9061 (to await permanent disposal) and labeled with all required information.

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA PACKAGE

UST NO. 192468-5

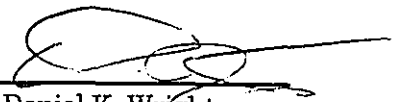
Report of Analysis
 U.S. Army, Fort Monmouth Environmental Laboratory
 NJDEP Certification # 13461

Client :	U.S. Army	Lab. ID # :	2999
	DPW. SELFM-PW-EV	Date Rec'd:	18-Sep-97
	Bldg. 173	Analysis Start:	18-Sep-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	19-Sep-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	BLDGS. 9162

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
2999.01	9162 OBS	1.00	15.31	91.11	168	ND
2999.02	9162 FPS	1.00	15.72	92.99	161	764.19
2999.03	9162 B1	1.00	15.02	96.79	162	ND
2999.04	9162 B2	1.00	15.11	96.21	162	ND
2999.05	9162 B3	1.00	15.04	96.34	162	ND
2999.06	9162 W	1.00	15.18	77.25	200	ND
2999.07	9162 N	1.00	15.01	95.07	165	ND
2999.08	9162 S	1.00	15.95	94.43	156	ND
2999.09	9162 E	1.00	15.74	89.84	166	ND
2999.10	9162 RF	1.00	15.55	89.23	169	250.24
2999.11	9162 BFP	1.00	15.81	90.16	165	ND
2999.12	9162 OBS	1.00	15.20	79.18	195	559.66
	9196					
METHOD BLANK	18-Sep-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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


Client :	U.S. Army	Lab. ID # :	3004
	DPW. SELFM-PW-EV	Date Rec'd:	19-Sep-97
	Bldg. 173	Analysis Start:	22-Sep-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	24-Sep-97

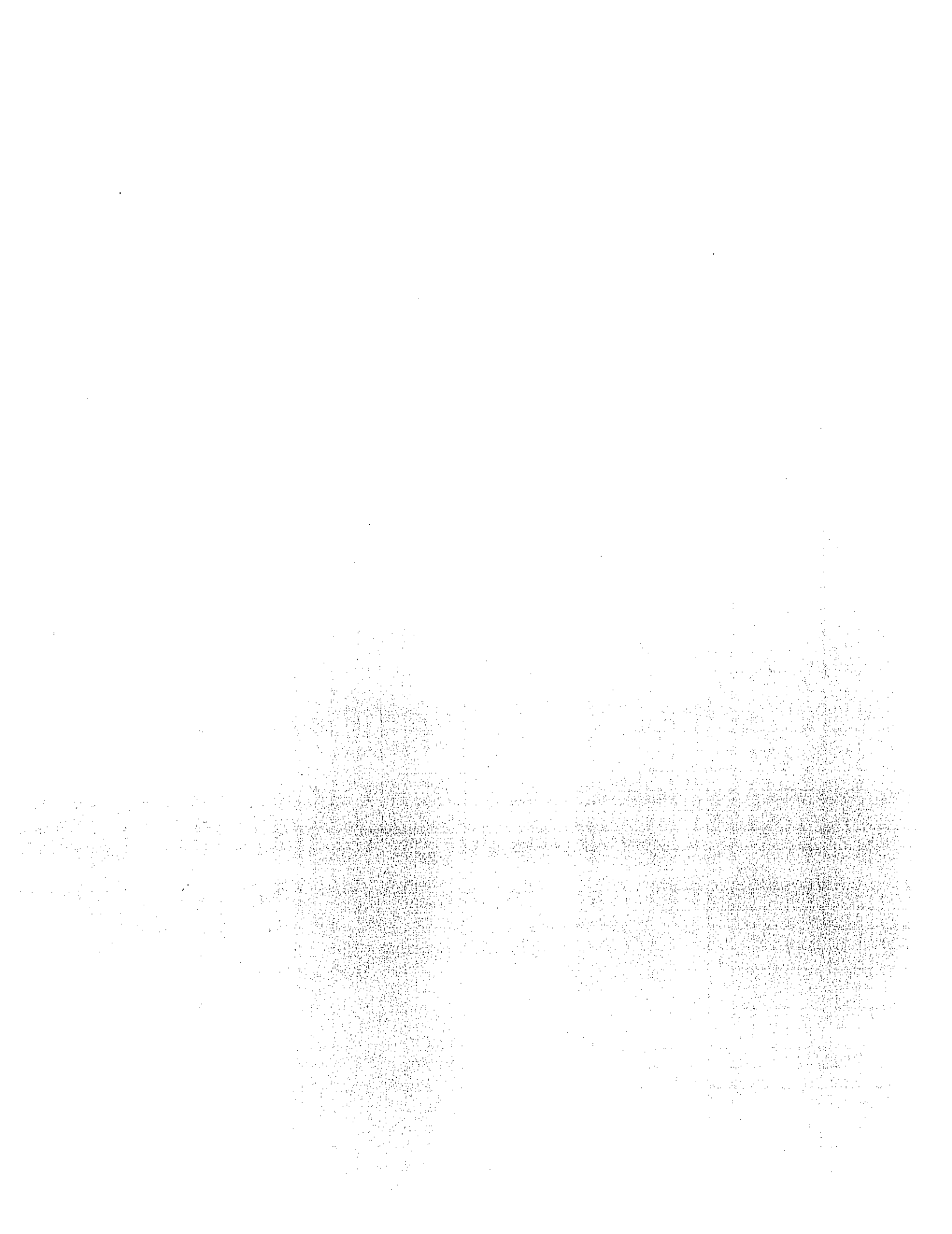
Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	9116, 9196

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3004.01	9116-RF	1.00	15.62	90.41	166	240.92
3004.02	9116-OBS(A)	1.00	15.66	96.04	156	243.31
3004.03	9116-OBS(B)	1.00	15.86	95.64	155	199.57
3004.04	9116-B1	1.00	15.48	95.59	159	ND
3004.05	9116-B2	1.00	15.52	91.35	166	ND
3004.06	9116-B3	1.00	15.45	91.53	166	ND
3004.07	9116-E	1.00	15.16	96.74	160	ND
3004.08	9116-S	1.00	15.31	94.51	162	324.09
3004.09	9116-W	1.00	15.17	94.55	164	ND
3004.10	9116-N	1.00	15.37	96.12	159	ND
3004.11	9116-CSP	1.00	15.74	92.75	161	224.20
3004.12	9116-DS	1.00	15.65	92.10	163	ND
3004.13	9196-B1	1.00	16.08	94.90	154	15028.64
3004.14	9196-B2	1.00	15.66	96.37	156	221.67
3004.15	9196-B3	1.00	15.39	97.08	157	523.64
3004.16	9196-W	1.00	16.02	98.21	149	183.81
3004.17	9196-S	1.00	15.49	89.64	169	ND
3004.18	9196-E	1.00	15.65	93.42	161	13158.85
3004.19	9196-N	1.00	15.56	96.78	156	18373.32
3004.20	9196-RF	1.00	15.00	91.09	172	482.61
METHOD BLANK	22-Sep-97	1.00	15.00	100.00	157	ND

ND = Not Detected

MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director



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

Data File Name v02179.d
 Operator Skelton
 Date Acquired 10/10/19 -1:1:

Sample Name 3031.09
 Field ID Trip Blank 9196-TB
 Sample Multiplier 1

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
107028	Acrolein			not detected	6.25 ug/L	na
107131	Acrylonitrile			not detected	6.25 ug/L	na
75650	tert-Butyl alcohol			not detected	12.50 ug/L	na
1634044	Methyl-tert-Butyl ether			not detected	2.50 ug/L	na
108203	Di-isopropyl ether			not detected	1.25 ug/L	na
	Dichlorodifluoromethane			not detected	3.63 ug/L	na
74-87-3	Chloromethane			not detected	0.79 ug/L	30
75-01-4	Vinyl Chloride			not detected	2.61 ug/L	5
74-83-9	Bromomethane			not detected	1.45 ug/L	10
75-00-3	Chloroethane			not detected	2.20 ug/L	na
75-69-4	Trichlorofluoromethane			not detected	1.31 ug/L	na
75-35-4	1,1-Dichloroethene			not detected	0.74 ug/L	2
67-64-1	Acetone			not detected	1.57 ug/L	700
75-15-0	Carbon Disulfide			not detected	0.54 ug/L	na
75-09-2	Methylene Chloride			not detected	1.66 ug/L	2
156-60-5	trans-1,2-Dichloroethene			not detected	0.50 ug/L	100
75-35-3	1,1-Dichloroethane			not detected	0.83 ug/L	70
108-05-4	Vinyl Acetate			not detected	2.07 ug/L	na
78-93-3	2-Butanone			not detected	2.06 ug/L	300
	cis-1,2-Dichloroethene			not detected	0.65 ug/L	10
67-66-3	Chloroform			not detected	0.43 ug/L	6
75-55-6	1,1,1-Trichloroethane			not detected	0.81 ug/L	30
56-23-5	Carbon Tetrachloride			not detected	1.20 ug/L	2
71-43-2	Benzene			not detected	0.51 ug/L	1
107-06-2	1,2-Dichloroethane			not detected	1.27 ug/L	2
79-01-6	Trichloroethene			not detected	0.94 ug/L	1
78-87-5	1,2-Dichloropropane			not detected	0.78 ug/L	1
75-27-4	Bromodichloromethane			not detected	0.77 ug/L	1
110-75-8	2-Chloroethyl vinyl ether			not detected	1.05 ug/L	na
10061-01-5	cis-1,3-Dichloropropene			not detected	0.60 ug/L	na
108-10-1	4-Methyl-2-Pentanone			not detected	1.33 ug/L	400
108-88-3	Toluene			not detected	0.73 ug/L	1000
10061-02-6	trans-1,3-Dichloropropene			not detected	1.43 ug/L	na
79-00-5	1,1,2-Trichloroethane			not detected	1.49 ug/L	3
127-18-4	Tetrachloroethene			not detected	0.92 ug/L	1
591-78-6	2-Hexanone			not detected	1.12 ug/L	na
126-48-1	Dibromochloromethane			not detected	1.36 ug/L	10
108-90-7	Chlorobenzene			not detected	0.66 ug/L	4
100-41-4	Ethylbenzene			not detected	1.14 ug/L	700
1330-20-7	m+p-Xylenes			not detected	2.53 ug/L	na
1330-20-7	o-Xylene			not detected	1.92 ug/L	na
100-42-5	Styrene			not detected	1.57 ug/L	100
75-25-2	Bromoform			not detected	1.68 ug/L	4
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1.71 ug/L	2
541-73-1	1,3-Dichlorobenzene			not detected	2.51 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	3.08 ug/L	74
95-50-1	1,2-Dichlorobenzene			not detected	2.75 ug/L	600

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

Data File Name v02180.d
 Operator Skelton
 Date Acquired 10/10/19 -1:2:

Sample Name 3031.10
 Field ID 9196-FB
 Sample Multiplier 1

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
107028	Acrolein			not detected	6.25 ug/L	na
107131	Acrylonitrile			not detected	6.25 ug/L	na
75650	tert-Butyl alcohol			not detected	12.50 ug/L	na
1634044	Methyl-tert-Butyl ether			not detected	2.50 ug/L	na
108203	Di-isopropyl ether			not detected	1.25 ug/L	na
	Dichlorodifluoromethane			not detected	3.63 ug/L	na
74-87-3	Chloromethane			not detected	0.79 ug/L	30
75-01-4	Vinyl Chloride			not detected	2.61 ug/L	5
74-83-9	Bromomethane			not detected	1.45 ug/L	10
75-00-3	Chloroethane			not detected	2.20 ug/L	na
75-69-4	Trichlorofluoromethane			not detected	1.31 ug/L	na
75-35-4	1,1-Dichloroethene			not detected	0.74 ug/L	2
67-64-1	Acetone			not detected	1.57 ug/L	700
75-15-0	Carbon Disulfide			not detected	0.54 ug/L	na
75-09-2	Methylene Chloride			not detected	1.66 ug/L	2
156-60-5	trans-1,2-Dichloroethene			not detected	0.50 ug/L	100
75-35-3	1,1-Dichloroethane			not detected	0.83 ug/L	70
108-05-4	Vinyl Acetate			not detected	2.07 ug/L	na
78-93-3	2-Butanone			not detected	2.06 ug/L	300
	cis-1,2-Dichloroethene			not detected	0.65 ug/L	10
67-66-3	Chloroform			not detected	0.43 ug/L	6
75-55-6	1,1,1-Trichloroethane			not detected	0.81 ug/L	30
56-23-5	Carbon Tetrachloride			not detected	1.20 ug/L	2
71-43-2	Benzene			not detected	0.51 ug/L	1
107-06-2	1,2-Dichloroethane			not detected	1.27 ug/L	2
79-01-6	Trichloroethene			not detected	0.94 ug/L	1
78-87-5	1,2-Dichloropropane			not detected	0.78 ug/L	1
75-27-4	Bromodichloromethane			not detected	0.77 ug/L	1
110-75-8	2-Chloroethyl vinyl ether			not detected	1.05 ug/L	na
10061-01-5	cis-1,3-Dichloropropene			not detected	0.60 ug/L	na
108-10-1	4-Methyl-2-Pentanone			not detected	1.33 ug/L	400
108-88-3	Toluene			not detected	0.73 ug/L	1000
10061-02-6	trans-1,3-Dichloropropene			not detected	1.43 ug/L	na
79-00-5	1,1,2-Trichloroethane			not detected	1.49 ug/L	3
127-18-4	Tetrachloroethene			not detected	0.92 ug/L	1
591-78-6	2-Hexanone			not detected	1.12 ug/L	na
126-48-1	Dibromochloromethane			not detected	1.36 ug/L	10
108-90-7	Chlorobenzene			not detected	0.66 ug/L	4
100-41-4	Ethylbenzene			not detected	1.14 ug/L	700
1330-20-7	m+p-Xylenes			not detected	2.53 ug/L	na
1330-20-7	o-Xylene			not detected	1.92 ug/L	na
100-42-5	Styrene			not detected	1.57 ug/L	100
75-25-2	Bromoform			not detected	1.68 ug/L	4
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1.71 ug/L	2
541-73-1	1,3-Dichlorobenzene			not detected	2.51 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	3.08 ug/L	74
95-50-1	1,2-Dichlorobenzene			not detected	2.75 ug/L	600

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

Data File Name **V02181.D**
 Operator **Skelton**
 Date Acquired **10/10/19 -1:2:**

Sample Name **3031.11**
 Field ID **9196-VOC**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
107028	Acrolein			not detected	6.25 ug/L	na
107131	Acrylonitrile			not detected	6.25 ug/L	na
75650	tert-Butyl alcohol			not detected	12.50 ug/L	na
1634044	Methyl-tert-Butyl ether			not detected	2.50 ug/L	na
108203	Di-isopropyl ether			not detected	1.25 ug/L	na
	Dichlorodifluoromethane			not detected	3.63 ug/L	na
74-87-3	Chloromethane			not detected	0.79 ug/L	30
75-01-4	Vinyl Chloride			not detected	2.61 ug/L	5
74-83-9	Bromomethane			not detected	1.45 ug/L	10
75-00-3	Chloroethane			not detected	2.20 ug/L	na
75-69-4	Trichlorofluoromethane			not detected	1.31 ug/L	na
75-35-4	1,1-Dichloroethene			not detected	0.74 ug/L	2
67-64-1	Acetone	11.09	20193	14.26 ug/L	1.57 ug/L	700
75-15-0	Carbon Disulfide			not detected	0.54 ug/L	na
75-09-2	Methylene Chloride			not detected	1.66 ug/L	2
156-60-5	trans-1,2-Dichloroethene			not detected	0.50 ug/L	100
75-35-3	1,1-Dichloroethane			not detected	0.83 ug/L	70
108-05-4	Vinyl Acetate			not detected	2.07 ug/L	na
78-93-3	2-Butanone			not detected	2.06 ug/L	300
	cis-1,2-Dichloroethene			not detected	0.65 ug/L	10
67-66-3	Chloroform			not detected	0.43 ug/L	6
75-55-6	1,1,1-Trichloroethane			not detected	0.81 ug/L	30
56-23-5	Carbon Tetrachloride			not detected	1.20 ug/L	2
71-43-2	Benzene			not detected	0.51 ug/L	1
107-06-2	1,2-Dichloroethane			not detected	1.27 ug/L	2
79-01-6	Trichloroethene			not detected	0.94 ug/L	1
78-87-5	1,2-Dichloropropane			not detected	0.78 ug/L	1
75-27-4	Bromodichloromethane			not detected	0.77 ug/L	1
110-75-8	2-Chloroethyl vinyl ether			not detected	1.05 ug/L	na
10061-01-5	cis-1,3-Dichloropropene			not detected	0.60 ug/L	na
108-10-1	4-Methyl-2-Pentanone			not detected	1.33 ug/L	400
108-88-3	Toluene			not detected	0.73 ug/L	1000
10061-02-6	trans-1,3-Dichloropropene			not detected	1.43 ug/L	na
79-00-5	1,1,2-Trichloroethane			not detected	1.49 ug/L	3
127-18-4	Tetrachloroethene			not detected	0.92 ug/L	1
591-78-6	2-Hexanone			not detected	1.12 ug/L	na
126-48-1	Dibromochloromethane			not detected	1.36 ug/L	10
108-90-7	Chlorobenzene			not detected	0.66 ug/L	4
100-41-4	Ethylbenzene			not detected	1.14 ug/L	700
1330-20-7	m+p-Xylenes			not detected	2.53 ug/L	na
1330-20-7	o-Xylene			not detected	1.92 ug/L	na
100-42-5	Styrene			not detected	1.57 ug/L	100
75-25-2	Bromoform			not detected	1.68 ug/L	4
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1.71 ug/L	2
541-73-1	1,3-Dichlorobenzene			not detected	2.51 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	3.08 ug/L	74
95-50-1	1,2-Dichlorobenzene			not detected	2.75 ug/L	600

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

TripBlank

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3031 Location: 9196 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 3031.07
 Sample wt/vol: 10.0 (g/ml) G Lab File ID: V02168.D
 Level: (low/med) MED Date Received: 10/03/97
 % Moisture: not dec. 0 Date Analyzed: 10/07/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein		1800	U
107131	Acrylonitrile		1800	U
75650	tert-Butyl alcohol		3200	U
1634044	Methyl-tert-Butyl ether		750	U
108203	Di-isopropyl ether		500	U
	Dichlorodifluoromethane		1000	U
74-87-3	Chloromethane		250	U
75-01-4	Vinyl Chloride		750	U
74-83-9	Bromomethane		500	U
75-00-3	Chloroethane		750	U
75-69-4	Trichlorofluoromethane		500	U
75-35-4	1,1-Dichloroethene		250	U
67-64-1	Acetone		500	U
75-15-0	Carbon Disulfide		250	U
75-09-2	Methylene Chloride		500	U
156-60-5	trans-1,2-Dichloroethene		500	U
75-35-3	1,1-Dichloroethane		250	U
108-05-4	Vinyl Acetate		750	U
78-93-3	2-Butanone		750	U
	cis-1,2-Dichloroethene		250	U
67-66-3	Chloroform		250	U
75-55-6	1,1,1-Trichloroethane		250	U
56-23-5	Carbon Tetrachloride		500	U
71-43-2	Benzene		250	U
107-06-2	1,2-Dichloroethane		500	U
79-01-6	Trichloroethene		250	U
78-87-5	1,2-Dichloropropane		250	U
75-27-4	Bromodichloromethane		250	U
110-75-8	2-Chloroethyl vinyl ether		500	U
10061-01-5	cis-1,3-Dichloropropene		250	U
108-10-1	4-Methyl-2-Pentanone		500	U
108-88-3	Toluene		250	U
10061-02-6	trans-1,3-Dichloropropene		500	U
79-00-5	1,1,2-Trichloroethane		500	U
127-18-4	Tetrachloroethene		250	U
591-78-6	2-Hexanone		500	U
126-48-1	Dibromochloromethane		500	U
108-90-7	Chlorobenzene		250	U
100-41-4	Ethylbenzene		500	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

TripBlank

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3031 Location: 9196 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 3031.07
 Sample wt/vol: 10.0 (g/ml) G Lab File ID: V02168.D
 Level: (low/med) MED Date Received: 10/03/97
 % Moisture: not dec. 0 Date Analyzed: 10/07/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	750	U
1330-20-7	o-Xylene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
541-73-1	1,3-Dichlorobenzene	750	U
106-46-7	1,4-Dichlorobenzene	750	U
95-50-1	1,2-Dichlorobenzene	750	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

BEVOC

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3031 Location: 9196 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 3031.08
 Sample wt/vol: 11.2 (g/ml) G Lab File ID: V02169.D
 Level: (low/med) MED Date Received: 10/03/97
 % Moisture: not dec. 0 Date Analyzed: 10/07/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein		1600	U
107131	Acrylonitrile		1600	U
75650	tert-Butyl alcohol		2900	U
1634044	Methyl-tert-Butyl ether		670	U
108203	Di-isopropyl ether		450	U
	Dichlorodifluoromethane		890	U
74-87-3	Chloromethane		220	U
75-01-4	Vinyl Chloride		670	U
74-83-9	Bromomethane		450	U
75-00-3	Chloroethane		670	U
75-69-4	Trichlorofluoromethane		450	U
75-35-4	1,1-Dichloroethene		220	U
67-64-1	Acetone		450	U
75-15-0	Carbon Disulfide		220	U
75-09-2	Methylene Chloride		450	U
156-60-5	trans-1,2-Dichloroethene		450	U
75-35-3	1,1-Dichloroethane		220	U
108-05-4	Vinyl Acetate		670	U
78-93-3	2-Butanone		670	U
	cis-1,2-Dichloroethene		220	U
67-66-3	Chloroform		220	U
75-55-6	1,1,1-Trichloroethane		220	U
56-23-5	Carbon Tetrachloride		450	U
71-43-2	Benzene		220	U
107-06-2	1,2-Dichloroethane		450	U
79-01-6	Trichloroethene		220	U
78-87-5	1,2-Dichloropropane		220	U
75-27-4	Bromodichloromethane		220	U
110-75-8	2-Chloroethyl vinyl ether		450	U
10061-01-5	cis-1,3-Dichloropropene		220	U
108-10-1	4-Methyl-2-Pentanone		450	U
108-88-3	Toluene		220	U
10061-02-6	trans-1,3-Dichloropropene		450	U
79-00-5	1,1,2-Trichloroethane		450	U
127-18-4	Tetrachloroethene		220	U
591-78-6	2-Hexanone		450	U
126-48-1	Dibromochloromethane		450	U
108-90-7	Chlorobenzene		220	U
100-41-4	Ethylbenzene		450	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

BEVOC

Lab Name: FMETL NJDEP # 13461

Project: 971251 Case No.: 3031 Location: 9196 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 3031.08

Sample wt/vol: 11.2 (g/ml) G Lab File ID: V02169.D

Level: (low/med) MED Date Received: 10/03/97

% Moisture: not dec. 0 Date Analyzed: 10/07/97

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
1330-20-7	m+p-Xylenes		670	U
1330-20-7	o-Xylene		450	U
100-42-5	Styrene		450	U
75-25-2	Bromoform		450	U
79-34-5	1,1,2,2-Tetrachloroethane		450	U
541-73-1	1,3-Dichlorobenzene		670	U
106-46-7	1,4-Dichlorobenzene		670	U
95-50-1	1,2-Dichlorobenzene		670	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Daily Blank

Lab Name: FMETL Project 971251
NJDEP # 13461 Case No.: 3031 Location 9196 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: Daily Blank
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V02178.D
Level: (low/med) LOW Date Received: 10/03/97
% Moisture: not dec. _____ Date Analyzed: 10/10/97
GC Column: RTX-502 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	RT	EST. CONC.	Q
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Daily Blank

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3031 Location: 9196 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: Daily Blank
 Sample wt/vol: 10.0 (g/ml) G Lab File ID: V02161.D
 Level: (low/med) MED Date Received: 10/03/97
 % Moisture: not dec. 0 Date Analyzed: 10/07/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

9196TB

Lab Name: FMETL Project 971251
NJDEP # 13461 Case No.: 3031 Location 9196 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 3031.09
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V02179.D
Level: (low/med) LOW Date Received: 10/03/97
% Moisture: not dec. _____ Date Analyzed: 10/10/97
GC Column: RTX-502 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	RT	EST. CONC.	Q
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

9196FB

Lab Name: FMETL Project 971251
NJDEP # 13461 Case No.: 3031 Location 9196 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 3031.10
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V02180.D
Level: (low/med) LOW Date Received: 10/03/97
% Moisture: not dec. _____ Date Analyzed: 10/10/97
GC Column: RTX-502 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	RT	EST. CONC.	Q
---------	----------	----	------------	---

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

9196VOC

Lab Name: FMETL Project 971251
 NJDEP # 13461 Case No.: 3031 Location 9196 SDG No.: _____
 Matrix: (soil/water) WATER Lab Sample ID: 3031.11
 Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V02181.D
 Level: (low/med) LOW Date Received: 10/03/97
 % Moisture: not dec. _____ Date Analyzed: 10/10/97
 GC Column: RTX-502 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	RT	EST. CONC.	Q

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

TripBlank

Lab Name: FMETL NJDEP # 13461
Project: 971251 Case No.: 3031 Location: 9196 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 3031.07
Sample wt/vol: 10.0 (g/ml) G Lab File ID: V02168.D
Level: (low/med) MED Date Received: 10/03/97
% Moisture: not dec. 0 Date Analyzed: 10/07/97
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
---------	----------	----	------------	---

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

BEVOC

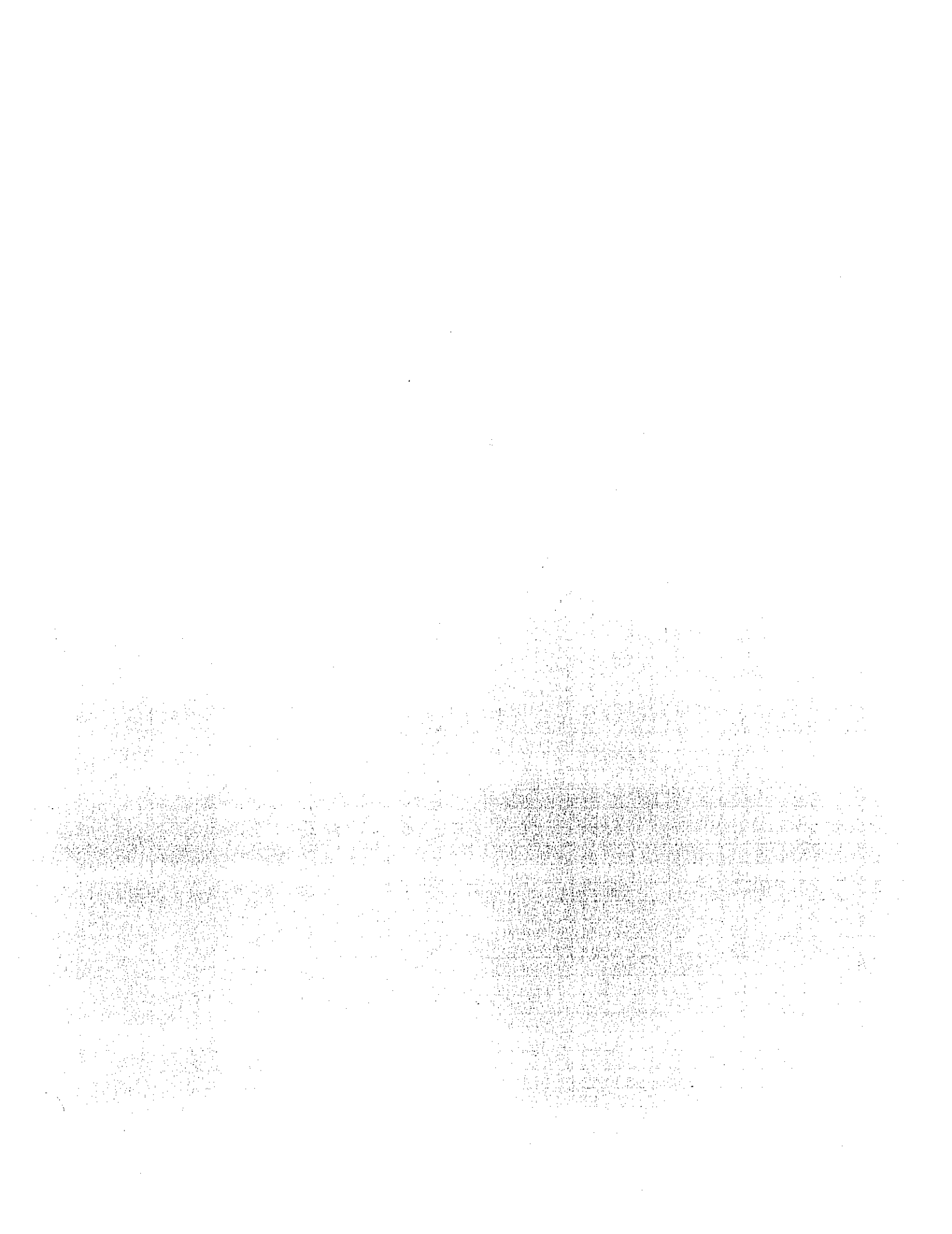
Lab Name: FMETL NJDEP # 13461
Project: 971251 Case No.: 3031 Location: 9196 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 3031.08
Sample wt/vol: 11.2 (g/ml) G Lab File ID: V02169.D
Level: (low/med) MED Date Received: 10/03/97
% Moisture: not dec. 0 Date Analyzed: 10/07/97
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
---------	----------	----	------------	---



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

Data File Name bn0593.d
 Operator Skelton
 Date Acquired 10/16/97 19:56

Sample Name 3031.10
 Field ID 9196-FB
 Sample Multiplier 1

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
110-86-1	Pyridine			not detected	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	0.94 ug/L	20
62-53-3	Aniline			not detected	0.15 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	0.48 ug/L	10
541-73-1	1,3-Dichlorobenzene			not detected	0.15 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	0.23 ug/L	75
100-51-6	Benzyl alcohol			not detected	0.18 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	0.16 ug/L	600
108-60-1	bis(2-chloroisopropyl)ether			not detected	0.61 ug/L	300
621-64-7	n-Nitroso-di-n-propylamine			not detected	0.36 ug/L	20
67-72-1	Hexachloroethane			not detected	0.33 ug/L	10
98-95-3	Nitrobenzene			not detected	0.46 ug/L	10
78-59-1	Isophorone			not detected	0.35 ug/L	100
111-91-1	bis(2-Chloroethoxy)methane			not detected	0.46 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	0.25 ug/L	9
91-20-3	Naphthalene			not detected	0.25 ug/L	
106-47-8	4-Chloroaniline			not detected	0.19 ug/L	
87-68-3	Hexachlorobutadiene			not detected	0.38 ug/L	1
91-57-6	2-Methylnaphthalene			not detected	0.16 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	1.50 ug/L	50
91-58-7	2-Chloronaphthalene			not detected	0.32 ug/L	
88-74-4	2-Nitroaniline			not detected	0.21 ug/L	
131-11-3	Dimethylphthalate			not detected	0.18 ug/L	7000
208-96-8	Acenaphthylene			not detected	0.19 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	0.31 ug/L	
99-09-2	3-Nitroaniline			not detected	0.26 ug/L	
83-32-9	Acenaphthene			not detected	0.26 ug/L	400
132-64-9	Dibenzofuran			not detected	0.32 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	0.36 ug/L	10
84-66-2	Diethylphthalate	16.43	355321	2.67 ug/L	0.82 ug/L	5000
86-73-7	Fluorene			not detected	0.29 ug/L	300
7005-72-3	4-Chlorophenyl-phenylether			not detected	0.31 ug/L	
100-01-6	4-Nitroaniline			not detected	0.90 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	0.23 ug/L	20
103-33-3	Azobenzene			not detected	0.80 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	0.55 ug/L	
118-74-1	Hexachlorobenzene			not detected	0.82 ug/L	10
85-01-8	Phenanthrene			not detected	0.18 ug/L	
120-12-7	Anthracene			not detected	0.19 ug/L	
84-74-2	Di-n-butylphthalate	20.30	499873	2.36 ug/L	0.23 ug/L	900
206-44-0	Fluoranthene			not detected	0.41 ug/L	300
92-87-5	Benzidine			not detected	1.45 ug/L	50
129-00-0	Pyrene			not detected	0.32 ug/L	200
85-68-7	Butylbenzylphthalate			not detected	0.47 ug/L	100
56-55-3	Benzo[a]anthracene			not detected	0.22 ug/L	10

91-94-1	3,3'-Dichlorobenzidine			not detected	0.46 ug/L	60
218-01-9	Chrysene			not detected	0.20 ug/L	20
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	0.51 ug/L	30
117-84-0	Di-n-octylphthalate			not detected	0.82 ug/L	100
205-99-2	Benzo[b]fluoranthene			not detected	0.37 ug/L	10
207-08-9	Benzo[k]fluoranthene			not detected	0.32 ug/L	2
50-32-8	Benzo[a]pyrene			not detected	0.31 ug/L	20
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	0.79 ug/L	20
53-70-3	Dibenz[a,h]anthracene			not detected	0.28 ug/L	20
191-24-2	Benzo[g,h,i]perylene			not detected	0.40 ug/L	

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

Data File Name **BN0594.D**
 Operator **Skelton**
 Date Acquired **10/16/97 20:40**

Sample Name **3031.12**
 Field ID **9196-BN**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
110-86-1	Pyridine			not detected	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	0.94 ug/L	20
62-53-3	Aniline			not detected	0.15 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	0.48 ug/L	10
541-73-1	1,3-Dichlorobenzene			not detected	0.15 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	0.23 ug/L	75
100-51-6	Benzyl alcohol			not detected	0.18 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	0.16 ug/L	600
108-60-1	bis(2-chloroisopropyl)ether			not detected	0.61 ug/L	300
621-64-7	n-Nitroso-di-n-propylamine			not detected	0.36 ug/L	20
67-72-1	Hexachloroethane			not detected	0.33 ug/L	10
98-95-3	Nitrobenzene			not detected	0.46 ug/L	10
78-59-1	Isophorone			not detected	0.35 ug/L	100
111-91-1	bis(2-Chloroethoxy)methane			not detected	0.46 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	0.25 ug/L	9
91-20-3	Naphthalene			not detected	0.25 ug/L	
106-47-8	4-Chloroaniline			not detected	0.19 ug/L	
87-68-3	Hexachlorobutadiene			not detected	0.38 ug/L	1
91-57-6	2-Methylnaphthalene			not detected	0.16 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	1.50 ug/L	50
91-58-7	2-Chloronaphthalene			not detected	0.32 ug/L	
88-74-4	2-Nitroaniline			not detected	0.21 ug/L	
131-11-3	Dimethylphthalate			not detected	0.18 ug/L	7000
208-96-8	Acenaphthylene			not detected	0.19 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	0.31 ug/L	
99-09-2	3-Nitroaniline			not detected	0.26 ug/L	
83-32-9	Acenaphthene			not detected	0.26 ug/L	400
132-64-9	Dibenzofuran			not detected	0.32 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	0.36 ug/L	10
84-66-2	Diethylphthalate	16.43	355321	2.67 ug/L	0.82 ug/L	5000
86-73-7	Fluorene			not detected	0.29 ug/L	300
7005-72-3	4-Chlorophenyl-phenylether			not detected	0.31 ug/L	
100-01-6	4-Nitroaniline			not detected	0.90 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	0.23 ug/L	20
103-33-3	Azobenzene			not detected	0.80 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	0.55 ug/L	
118-74-1	Hexachlorobenzene			not detected	0.82 ug/L	10
85-01-8	Phenanthrene			not detected	0.18 ug/L	
120-12-7	Anthracene			not detected	0.19 ug/L	
84-74-2	Di-n-butylphthalate	20.30	499873	2.36 ug/L	0.23 ug/L	900
206-44-0	Fluoranthene			not detected	0.41 ug/L	300
92-87-5	Benzidine			not detected	1.45 ug/L	50
129-00-0	Pyrene			not detected	0.32 ug/L	200
85-68-7	Butylbenzylphthalate			not detected	0.47 ug/L	100
56-55-3	Benzo[a]anthracene			not detected	0.22 ug/L	10

91-94-1	3,3'-Dichlorobenzidine			not detected	0.46 ug/L	60
218-01-9	Chrysene			not detected	0.20 ug/L	20
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	0.51 ug/L	30
117-84-0	Di-n-octylphthalate			not detected	0.82 ug/L	100
205-99-2	Benzo[b]fluoranthene			not detected	0.37 ug/L	10
207-08-9	Benzo[k]fluoranthene			not detected	0.32 ug/L	2
50-32-8	Benzo[a]pyrene			not detected	0.31 ug/L	20
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	0.79 ug/L	20
53-70-3	Dibenz[a,h]anthracene			not detected	0.28 ug/L	20
191-24-2	Benzo[g,h,i]perylene			not detected	0.40 ug/L	

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET FIELD ID
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK

Lab Name: FMETL Lab Code 13461

Project 971251 Case No.: 3031 Location 9196 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: Extraction Blan

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN0601.D

Level: (low/med) LOW Date Received: 10/03/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 10/17/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

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

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Aldol condensate	5.08	52	J
2.	unknown	26.99	30	J

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET FIELD ID
TENTATIVELY IDENTIFIED COMPOUNDS

9196-FB

Lab Name: FMETL Lab Code 13461

Project 971251 Case No.: 3031 Location 9196 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 3031.10

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN0593.D

Level: (low/med) LOW Date Received: 10/03/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 10/16/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

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

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000111-46-6	Ethanol, 2,2'-oxybis-	7.61	38	JN
2.	unknown	26.99	33	J

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET FIELD ID
TENTATIVELY IDENTIFIED COMPOUNDS

9196-BN

Lab Name: FMETL Lab Code 13461

Project 971251 Case No.: 3031 Location 9196 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 3031.12

Sample wt/vol: 500 (g/ml) ML Lab File ID: BN0594.D

Level: (low/med) LOW Date Received: 10/03/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 10/16/97

Concentrated Extract Volume: 500 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

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

CONCENTRATION UNITS:

Number TICs found: 5 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Aldol condensate	5.05	23	J
2. 000111-46-6	Ethanol, 2,2'-oxybis-	7.65	66	JN
3. 000084-74-2	Dibutyl phthalate	19.38	16	JN
4.	unknown hydrocarbon	23.83	26	J
5.	unknown	27.00	76	J

APPENDIX D

UST DISPOSAL CERTIFICATE

UST NO. 192468-5



Sender From:
The Drawing Board
 P.O. Box 2844 • Hartford, CT 06104-2844
 Call Toll Free: 1-800-827-8030

REORDER ITEM # BLN74

STRAIGHT BILL OF LADING
 ORIGINAL - NOT NEGOTIABLE

Shipper No. 004

SMC ENVIRONMENTAL SERVICES GROUP

Carrier No. _____

(Name of Consignor)

Date _____

To: <u>Mazza + Sons, Inc.</u>	From: <u>U.S. Army Camp Evans</u>
Address: <u>13230 Shafto Road</u>	Building: <u>Building 9196</u>
City: <u>Tinton Falls, NJ</u> Zip Code: <u>07753</u>	City: <u>Wall, NJ</u> Zip Code: <u>07719</u>

No. of Packages (Units)	Weight (Including In Containers)	Kind of Packaging, Description of Articles, Special Marks and Exceptions	RATE	CHARGES
①		FOR SERAP ONLY 1,000 Gallon U.S.T Skid Tank # None Building # 9196		

REMIT C.O.D. TO: ADDRESS NONE	COD Amt: \$	C.O.D. FEE: PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/>
<small>NOTE - Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby voluntarily stated by the shipper to be not exceeding _____ per _____</small>	<small>This is to certify that the above named article/s are properly classified, described, packed, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.</small>	TOTAL CHARGES: \$ <small>PRINTED CHARACTERS ONLY</small>
<small>Subject to Section 7 of the conditions of this bill of lading, the carrier shall not be liable for loss or damage to the goods or other benefits thereon.</small>		Signature of Consignor: _____

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, amount as noted (contents and condition of contents of packages unknown), received, consigned, and delivered as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery of said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as in each order of bill of lading, that every portion of said goods shall be delivered and as to each party of any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the bills of lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the bills of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his consignee.

SHIPPER <u>U.S. Army Camp Evans</u>	CARRIER <u>SMC ENVIRONMENTAL SERVICES GROUP</u>
PER <u>David H. Jones (Agent)</u>	PER <u>Mark C. [Signature]</u>
DATE <u>10/13/97</u>	

*Mark with "X" to designate Restricted Material as defined in Title 49 of the Code of Federal Regulations. Printed Herein BLN74 The Drawing Board, P.O. Box 2844, Hartford, CT 06104-2844 ©EGB, 1992, Printed in U.S.A.

FROM JMT ENVIRON. TECH. 610 789 6149 1995 8:52PM

(F)

SMC Environmental Services Group

A Subsidiary of Waste Management Corporation

P.O. Box 859

Valley Forge, Pennsylvania 19482

Telephone (610) 265-2700

CERTIFICATE OF NON-HAZARDOUS VESSEL

FACILITY: Camp Evans (U.S. Army)
Wall, NJ
Building 9196

VESSEL: 1,000 gallon steel tank
(Formerly #2 Fuel Oil)

This letter is to confirm that the vessel/vessels at the above referenced location has been physically entered (if necessary), degreased, washed/cleaned, and the material contained within has been completely removed and properly disposed. As of 3:00 A.M./P.M. on 9/16/97, the above said vessel is certified gas free and has been cleaned following recommended procedures in API PUBLICATION 2015. Due to conditions that SMC Environmental Services Group has no control over, this certification is valid only until the vessel is received by the designated steel recycling facility. SMC Environmental Services Group will not be held liable for any damages which may occur after certification.

**SMC ENVIRONMENTAL SERVICES GROUP
SIGNATURE OF CERTIFICATION**

David H. Daniels / SMC
 Signature

David H. Daniels / Site Manager
 Print or Type Name Here

APPENDIX E

**WASTE MANIFEST FOR
OFF-SITE TRANSPORT OF UST CONTENTS
UST NO. 192468-5**



RD1 Box 5A
Old Bridge, N.J. 08857
(908) 721-0900
Fax (908) 721-0231

STANDARD
COLLECTION
ORDER FORM

176848

GENERATOR/LOCATION

SALES ORDER #

BILL TO (IF DIFFERENT FROM LOCATION)

NAME	INFORMATION/ATTENTION LINE	ACCOUNT APPROVAL CODE	NAME	INFORMATION/ATTENTION LINE	ACCOUNT APPROVAL CODE
DELIVERY ADDRESS	CITY	STATE	DELIVERY ADDRESS	CITY	STATE
PHONE NUMBER	PURCHASE ORDER NUMBER	STATE ID NO.	PHONE NUMBER	PURCHASE ORDER NUMBER	STATE ID NO.
USA EPA ID NO. (IF APPLICABLE)			MANIFEST NUMBER	NAR 7919	

SHIPPING INFORMATION

This is to certify that the below 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.

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	SALES REPRESENTATIVE
				Combustible Liq. 1 UN 1870 PG 111	SW

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	Tons	Volume
40500	USED OIL REMOVAL						
40300	ANTI-FREEZE REMOVAL						
40600	USED OIL FILTER REMOVAL					9307	55
40501	OILY WATER DISPOSAL		344	Gal		9162	55
40502	SLUDGE DISPOSAL						
41001	GASOLINE/WATER					9196	55
41501	DRUM DISPOSAL						
41504	TANK ENTRY					9116	55
40800	PARTS WASHER SERVICE						
41500	TRUCK OPERATOR		8.00	1100	5 hours	9003	30
41511	NEW 55 GAL DRUM WITH HD					9006	200
41503	QAQC ANALYTICAL TESTING					9059	30
42001	DEXSIL TEST KIT TAX						
41509	TRANSPORTATION					9031	30

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION. INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES. GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED LORCO HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

Generator certifies that the waste is Non-Haz
In accordance the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

Print Name Charles Apples Title Env. Prod. Sr.
Signature [Signature] Date 10-7-97
GENERATOR/CUSTOMER

SMALL QUANTITY TOTAL GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C.F.R. 261, and does not accumulate more than 1,000 kilograms of such waste during the month.

GENERATOR'S SIGNATURE

LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT TEST RESULTS

PPM

PAYMENT RECEIVED SECTION

CASH <input type="checkbox"/>	TOTAL RECEIVED
CHECK NUMBER	

CUSTOMER SERVICED EVERY 30 DAYS

In accordance with 40 CFR 266 § 43(5) LORCO has notified the US EPA of its location and used oil management activities.

Print Name Greg Wick
Signature [Signature] Date 10-7-97
LORCO REPRESENTATIVE

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

*Building 9307
Camp Evans Area*

NJDEP UST Registration No. 90029-32

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

FIGURES

Figure 1	Building 9307 - UST Removal Location Map
Figure 2	Building 9307 - UST Removal and Soil Sample Locations
Figure 3	Building 9307 - UST Remedial Soil Sample Locations

APPENDICES

Appendix A	Signed Site Assessment Summary
Appendix B	Photographs of UST Closure
Appendix C	Soil Sample Analytical Data Package
Appendix D	UST Disposal Certificate
Appendix E	Waste Manifest for Off-site Transport of UST Contents

EXECUTIVE SUMMARY

UST Closure

On September 10, 1997, a steel underground storage tank (UST) was closed by removal at the Camp Evans area of the U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 90029-32 (Fort Monmouth Identification No. 9307), was located northwest of Building 9307 in the Camp Evans area of Fort Monmouth. The UST was a 1,000-gallon No. 2 fuel oil tank. The UST fill port was located directly above the southern end of the tank.

Site Assessment

The site assessment was performed by Tetra Tech EM Inc. (Tetra Tech) and SMC Environmental Services Group (SMC). One hole approximately 0.25-inch in diameter was noted on the north side of the UST; however, no evidence of potentially contaminated soil was observed around the tank. Samples collected at the time the UST was removed contained total petroleum hydrocarbons (TPHC) at up to 1,104.66 milligrams per kilogram (mg/kg). After additional soil was excavated and removed, TPHC concentrations in the remaining soil range from nondetect to 476.74 mg/kg. The total amount of soil removed from the excavation was 25 cubic yards.

Site Restoration

After receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with clean native soil from the Building 9307 area, as well as clean soil imported from the New Jersey Sand and Gravel Company. The excavation site was then restored to its original condition.

Conclusions and Recommendations

Based on post-excavation soil sampling results, TPHC concentrations in remaining soil do not exceed the NJDEP soil cleanup criterion for total organic contaminant of 10,000 mg/kg, or the more stringent soil cleanup criteria of 1,000 mg/kg TPHC used by Fort Monmouth, at the former location of the UST or associated piping. No further action is proposed with regard to the closure and site assessment of UST No. 90029-32 at Building 9307.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 90029-32, was closed at Building 9307 at the Camp Evans area of U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey on September 10, 1997. The UST was a steel 1,000-gallon tank containing No. 2 fuel oil.

The UST removal was performed in accordance with the Fort Monmouth UST Management Plan (S.O.P. Number 19), which had previously been approved by the NJDEP. The signed site assessment summary form for UST No. 90029-32 is included in Appendix A.

Based on an inspection of the UST, field screening of subsurface soil, and soil sample analytical results, Tetra Tech has concluded that no significant historical discharges are associated with UST No. 90029-32 or associated piping.

This report was prepared based on information collected at the time of UST closure. Section 1 of this UST closure and site investigation report provides a site description and summarizes UST removal activities. Section 2 describes site investigation activities, including field screening and soil sampling. Section 3 presents the post-excavation soil sampling results. Conclusions and recommendations are presented in Section 4 of this report.

1.1 SITE DESCRIPTION

Building 9307 is located in the Camp Evans area of the Fort Monmouth Army Base as shown in Figure 1. UST No. 90029-32 was located northwest of Building 9307 and associated piping ran approximately 6 feet southeast from the UST to Building 9307. The UST fill port area was located directly above the southern end of the tank. A site map is provided in Figure 1 showing the location of the UST removal relative to Building 9307.

1.2 UNDERGROUND STORAGE TANK EXCAVATION AND CLEANING

Prior to UST decommissioning activities, surficial soil was excavated to expose the UST and associated piping. All free product present in the piping was drained into the UST. The UST was not purged prior to the removal of the piping because of the low volatility of No. 2 fuel oil. After the removal of associated piping, soil excavation continued to uncover the UST. Because of a malfunction with the drum vacuum equipment, the removal contractor, SMC Environmental Services Group (SMC), removed the tank from the ground prior to opening and cleaning the tank.

After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. One hole approximately 0.25-inch in diameter was observed by the Tetra Tech site manager and the SMC subsurface evaluator. Appendix B provides photographs of the tank. Soil around the UST was screened visually and with a photoionization detector (PID) and flame ionization detector (FID) for contamination. No evidence of contamination was observed or detected by the PID/FID. Visual and PID/FID soil screening was also performed along piping associated with the UST. No contamination was noted anywhere along the piping length.

After removal of the UST, polyethylene sheeting was placed in the excavation and the excavation was backfilled because of the potential for heavy precipitation overnight and subsequent undermining of the building foundation.

The following day, the UST was cut open with a nonsparking pneumatic cutter and the remaining contents of the tank (approximately 55 gallons) were removed with a drum vacuum device. SMC completed cleaning the UST by wiping the interior of the tank with oil absorbent pads.

The 55 gallons removed from the UST were transported by Lorco Petroleum Company to its NJDEP-approved petroleum recycling and disposal facility in Old Bridge, New Jersey. Appendix E provides a copy of the waste manifest for the off-site transport of the 55 gallons of sludge.

1.3 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The cleaned tank was transported to Mazza and Sons, Inc. in Tinton Falls, New Jersey for disposal in compliance with all applicable regulations and laws. Appendix D provides a copy of the UST Disposal Certificate. Prior to transport, the UST was labeled with the following information:

- Site of origin
- Contact person
- NJDEP UST facility identification number
- Name of transporter and contact person
- Destination site and contact person

1.4 MANAGEMENT OF EXCAVATED SOILS

Post-excavation soil sampling locations are shown in Figures 2 and 3 and discussed in Section 2.2. Based on PID/FID air monitoring results and total petroleum hydrocarbon (TPHC) results from post-excavation soil samples, soil at the UST9307B3 sampling location was contaminated. After additional excavation was performed and post-excavation sampling results confirmed that the contaminated soil had been removed, the clean excavated soil and imported clean fill were used to backfill the UST excavation. Contaminated soil was removed to the staging area for disposal off site at a later date.

2.0 SITE INVESTIGATION ACTIVITIES

In accordance with NJDEP's "Technical Requirements for Site Remediation" and "Field Sampling Procedures Manual," Tetra Tech and SMC personnel conducted the site assessment. The site investigation was managed by Tetra Tech and performed by SMC. All analyses were performed and results reported by the U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory operated by TECOM-Vinnell Services, Inc. (TVS). All sampling was performed under the direct supervision of a NJDEP certified subsurface evaluator in accordance with methods described in NJDEP's "Field Sampling Procedures Manual" dated 1992. Sampling frequency and parameters analyzed complied with applicable regulations at the date of UST closure specified in NJDEP-BUST's document "Interim Closure Requirements for Underground Storage Tank Systems" dated October 1990; revisions dated November 1, 1991. All records of site investigation activities are maintained by Tetra Tech and the Fort Monmouth Department of Public Works (DPW) Environmental Office.

The following parties participated in UST closure and site investigation activities:

- Subsurface Evaluator: David H. Daniels
Employer: SMC Environmental Services Group
Telephone No.: (215) 788-7844
NJDEP Certification No.: 0010279
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Telephone No.: (732) 532-4359
NJDEP Company Certification No.: 13461
- Hazardous Waste Hauler: Lorco Petroleum Company
Contact Person: Dan MacKay
Telephone No.: (732) 721-0900
NJDEP Hazardous Waste Hauler No.: S6247

2.1 FIELD SCREENING/MONITORING

Visual screening and field screening using a PID/FID were performed by a NJDEP certified subsurface evaluator to identify potentially contaminated material. Soil excavated from around the UST and associated piping, as well as the UST excavation sidewalls and bottom, did not exhibit evidence of contamination at the time of the UST removal.

2.2 SOIL SAMPLING

On September 10, 1997, after UST removal, post-excavation soil samples UST9307B1, UST9307B2 (Duplicate of UST9307B1), UST9307B3, UST9307W, UST9307E, UST9307N, UST9307S, and UST9307RF were collected from seven locations in the UST excavation. Figure 2 presents the sampling locations. Excavation sidewall samples were collected at the edge of the former UST location, and bottom samples were collected from 0 to 6-inches beneath the former UST location, or 7 to 7.5-feet below ground surface (bgs). The sidewall samples were collected from 6.5 to 7-feet bgs. Sample UST9307RF was collected from next to Building 9307 along the former return/feed line piping length of the excavation, which was approximately 6 feet long. Sample UST9307RF was collected from 3 to 3.5-feet bgs. All samples were analyzed for TPHC and total solids.

Analytical results for the original post-excavation samples revealed 1,104.66 milligrams per kilogram (mg/kg) TPHC at the UST9307B3 sample location. This concentration exceeds 1,000 mg/kg TPHC, which is NJDEP's criterion for additional soil removal/remediation or for required VOC sampling. As a result, on October 14, 1997, Tetra Tech and SMC excavated additional soil from the western half of the

original UST excavation and collected post-excavation soil samples 9307B4, 9307B5 (duplicate of 9307B4), 9307B6, 9307N21, 9307W21, and 9307S21 from a total of five sampling locations. Bottom samples were collected from 10 to 10.5 feet bgs. Sidewall samples were collected from 9.5 to 10 feet bgs. In addition, samples 9307OBS1, 9307OBS2, and 9307OBS3 were collected from three locations on the overburden soil pile to verify that the pile was not contaminated and could be used as clean backfill for the excavation. Figure 3 presents the additional post-excavation sampling locations.

Post-excavation soil samples were collected in accordance with standard sampling procedures specified in NJDEP's Field Sampling Procedures Manual" dated 1992. Samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory in Fort Monmouth, New Jersey, for analysis. A summary of post-excavation sampling activities, including parameters analyzed for, is provided in Table 1.

3.0 SOIL SAMPLING RESULTS

To evaluate soil conditions after removal of the UST and associated piping, post-excavation soil samples were collected from seven locations on September 10, 1997. All samples were analyzed for TPHC and total solids. Post-excavation sampling results were compared to the NJDEP residential direct contact soil cleanup criterion of 10,000 mg/kg for total organic contaminants (N.J.A.C. 7:26D and revisions dated February 3, 1994) and the more stringent soil cleanup criterion of 1,000 mg/kg used by Fort Monmouth. A summary of the analytical results and comparison to the NJDEP soil cleanup criterion is provided in Table 2. Soil sampling locations are shown in Figures 2 and 3. The analytical data package is provided in Appendix C.

One of the post-excavation soil samples collected on September 10, 1997, from the UST excavation and from below piping associated with the UST contained 1,104.66 mg/kg of TPHC, which exceeded the NJDEP soil cleanup criterion of 1,000 mg/kg TPHC, requiring additional soil removal remediation or required VOC sampling. The remainder of the samples contained TPHC concentrations from nondetect to 476.74 mg/kg.

As a result, additional soil excavation and post-excavation sampling was conducted on October 14, 1997 (see Section 2.2). All samples from the five sampling locations contained nondetectable concentrations of TPHC.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results for all post-excavation soil samples for soil remaining in the UST excavation at Building 9307 were below the NJDEP soil cleanup criterion for required VOC analysis.

Based on post-excavation sampling results, soil containing TPHC concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent Fort Monmouth soil cleanup criterion of 1,000 mg/kg TPHC, no longer exist in the former location of the UST or associated piping; therefore, no further action is proposed with regard to the closure and site assessment of UST No. 90029-32 at Building 9307.

Legend of Sample Identifications
Camp Evans Area
Wall Township, New Jersey

B	Sample from the bottom of the excavation
W	Samples from the west sidewall of the excavation
E	Samples from the east sidewall of the excavation
N	Samples from the north sidewall of the excavation
S	Samples from the south sidewall of the excavation
RF	Sample from beneath the former location of the return/feed lines of the UST
VL	Sample from beneath the former location of the vent line to the UST
OBS	Sample from the overburden soil pile of a UST excavation to determine if the soil can be used as backfill or must be transported to the contaminated soil stockpile
N21	Sample collected from the north sidewall on the second day of sampling (from a particular UST excavation) first sample (from that particular sidewall or area of the excavation) (NOTE: The "21" designation can be used with any of the letter combinations listed above).
FPS	Soil located directly adjacent to the fill port of the tank ("Fill Port Soil").
BFP	Soil located beneath the fill port of the tank ("Beneath Fill Port")
9116CSP	Contaminated soil pile from the UST-9116 excavation
DS	Deep Sample
9196BE1A	Geoprobe boring performed on the east side of the UST-9196 excavation to investigate contamination from the leaking UST. Last number denotes the boring number and last letter indicates which sample in the sequence.
RFL/B6	Sample from remedial excavation of a leaking remote fill line/what area of the excavation the sample was collected.
RF(CT)	Samples were collected from return feed lines consisting of copper tubing.
RFL(2)	Samples collected from a second remote fill line for a particular UST excavation
RB1	Remedial excavation for a particular building. The second letter and number designate the particular area of the excavation where the sample was collected
CNFRM	Confirmatory sample to confirm that contamination has been removed
CNFM	Another designation for a confirmatory sample
R/F/VL	Return/feed/vent lines. Used at buildings where the return/feed lines and the vent lines were located close together and one sample could be collected for both lines
SCNT1	Sample collected at a location of suspected contamination
(W)E1	Sample collected from the eastern sidewall of the western half of the excavation (remedial excavation).
TP	Test pit/trench
HWAB	Hazardous waste area building (former location)
AST	Above ground storage tank
9105ASTB1	Sample collected at the former location of an AST at the specified building
DEL	Delineation sample to document the extent of contamination
SD	Sample collected from a storm drain
SW	Sample collected from a sidewall of a remedial excavation
CTR	Copper tubing run
CSP-1	Clean soil pile

Table 1
 Summary of Post-Excavation Sampling Activities
 Building 9307, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
UST9307B1	9/10/97	9/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
UST9307B2	9/10/97	9/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
UST9307B3	9/10/97	9/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
UST9307W	9/10/97	9/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307OBS1**	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307OBS2**	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307OBS3**	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307B4**	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307B5**	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307B6**	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307N21**	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307W21**	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307S21**	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
UST9307E	9/10/97	9/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
UST9307N	9/10/97	9/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
UST9307S	9/10/97	9/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
UST9307RF	9/10/97	9/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

** Samples collected to remediate contamination found in sample above.

Table 2
 Post-Excavation Soil Sampling Results
 Building 9307, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
UST9307B1	2981.01	9/10/97	9/11 - 13/97	TPHC	161	278.59	10,000	No
UST9307B2	2981.02	9/10/97	9/11 - 13/97	TPHC	161	ND	10,000	No
UST9307B3	2981.03	9/10/97	9/11 - 13/97	TPHC	155	1,104.66	10,000	No
9307OBS21**	3065.01	10/14/99	10/16 - 17/97	TPHC	170	ND	10,000	No
9307OBS22**	3065.02	10/14/99	10/16 - 17/97	TPHC	163	ND	10,000	No
9307OBS23**	3065.03	10/14/99	10/16 - 17/97	TPHC	163	ND	10,000	No
9307B4**	3065.04	10/14/99	10/16 - 17/97	TPHC	159	ND	10,000	No
9307B5**	3065.05	10/14/99	10/16 - 17/97	TPHC	154	ND	10,000	No
9307B6**	3065.06	10/14/99	10/16 - 17/97	TPHC	153	ND	10,000	No
9307N21**	3065.07	10/14/99	10/16 - 17/97	TPHC	157	ND	10,000	No
9307W21**	3065.08	10/14/99	10/16 - 17/97	TPHC	155	ND	10,000	No
9307S21**	3065.09	10/14/99	10/16 - 17/97	TPHC	158	ND	10,000	No
UST9307W	2981.04	9/10/97	9/11 - 13/97	TPHC	165	ND	10,000	No
UST9307E	2981.05	9/10/97	9/11 - 13/97	TPHC	165	ND	10,000	No
UST9307N	2981.06	9/10/97	9/11 - 13/97	TPHC	158	201.16	10,000	No
UST9307S	2981.07	9/10/97	9/11 - 13/97	TPHC	160	ND	10,000	No
UST9307RF	2981.08	9/10/97	9/11 - 13/97	TPHC	161	476.74	10,000	No

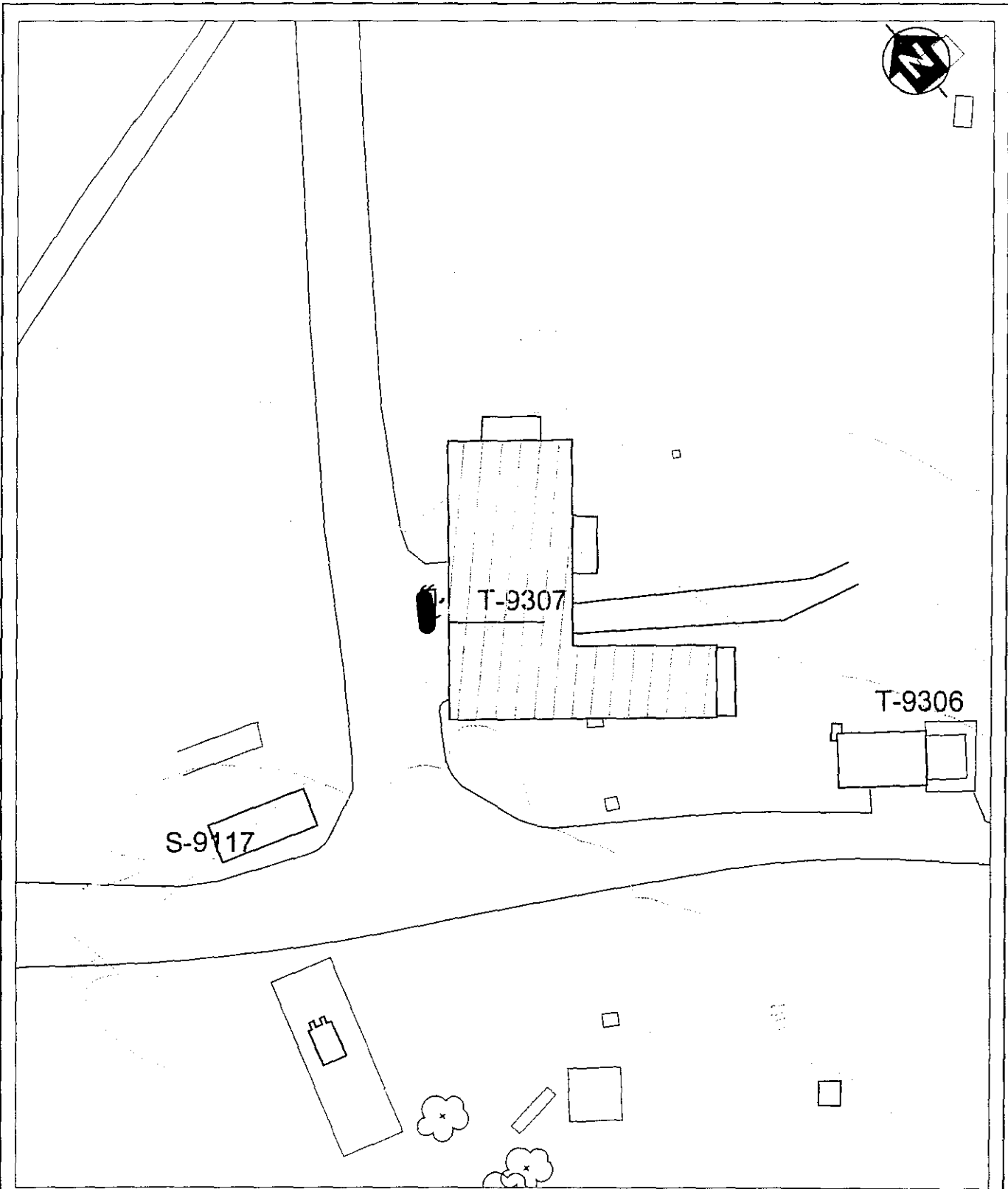
Note:

* Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.

ND Not detected

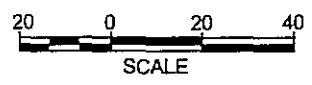
TPHC Total petroleum hydrocarbons

** Samples collected to remediate contamination found in sample above.



9307.DWG ASC 01/19/99

 UNDERGROUND STORAGE TANK

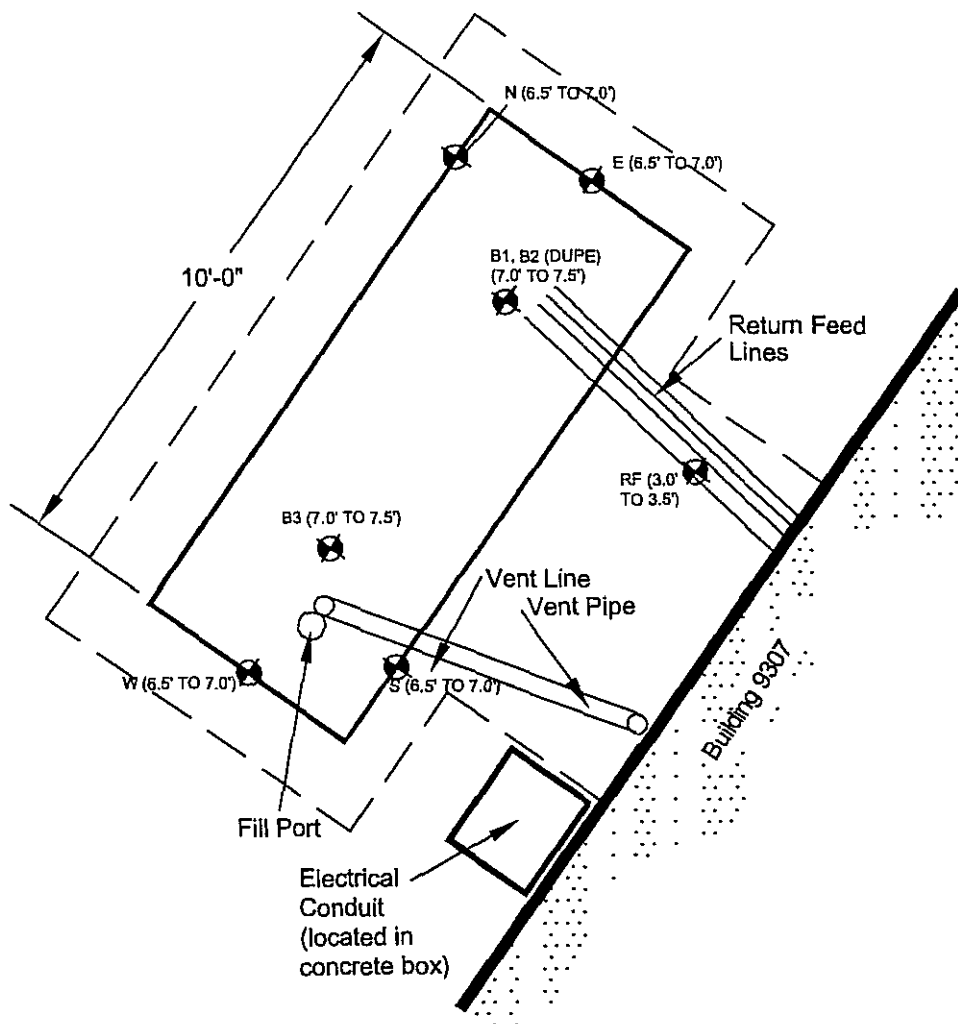


EVANS AREA
 FORT MONMOUTH, NEW JERSEY
 FIGURE 1
 BUILDING 9307 - UST REMOVAL LOCATION MAP

 TETRA TECH EM INC.




SITE NORTH (TOWARD
MONMOUTH BOULEVARD)



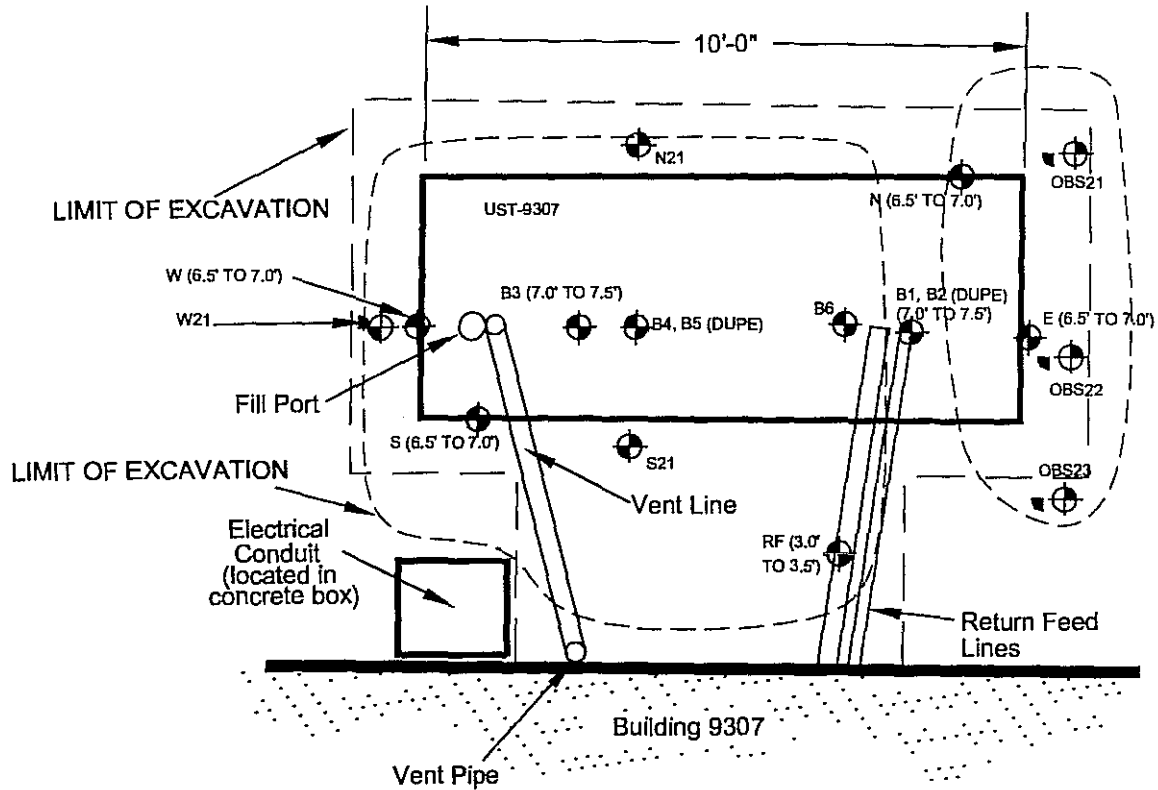
NOTE: All sample designations are preceded by "UST-9307".



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 2 BUILDING 9307 - UST REMOVAL AND SOIL SAMPLE LOCATIONS
 TETRA TECH EM INC.



SITE NORTH (TOWARD
MONMOUTH BOULEVARD)



NOTES:

- 1) ALL SAMPLE DESIGNATIONS ARE PRECEDED BY "UST-9307" (FOR ORIGINAL EXCAVATION)
- 2) ALL SAMPLE DESIGNATIONS ARE PRECEDED BY "9307-*" (FOR REMEDIATION EXCAVATION)
- 3) A) \odot SAMPLES FROM ORIGINAL EXCAVATION
 B) \oplus SAMPLES FROM REMEDIATION EXCAVATION
- 4) SAMPLE DEPTHS (FROM REMEDIATION EXCAVATION)
 A) B4, B5, B6: 10.0' TO 10.5'
 B) N21, S21, W21: 9.5' TO 10.0'
 C) OBS21, OBS22, OBS23: PILE
- 5) UST-9307 WAS 10' LONG AND 4' IN DIAMETER
- — ORIGINAL EXCAVATION
 - - - REMEDIATION EXCAVATION AND SOIL PILE
- 6) ALL SAMPLE IDS WERE ASSIGNED BASED ON SITE NORTH
 TOWARDS MONMOUTH BOULEVARD



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 3 BUILDING 9307 UST REMEDIAL SOIL SAMPLE LOCATIONS
TETRA TECH EM INC.

APPENDIX A

SIGNED SITE ASSESSMENT SUMMARY FORM

UST NO. 90029-32

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: US Army, Fort Monmouth, Evans Area

Facility Street Address: Building 1207, DCSOPS-BID

Municipality: Wall Township County : Monmouth

Block: 240, 241 and 242 Lot(s): 240 (55.01, 55.02, 55.03 & 55.04), 241 (1), 242 (1.01 & 1.02)

Telephone Number : (732) 239-2427

B. Owner (RP)'s Name: US Army, CECOM

Street Address: DCSOPS-BID, Bldg. 1207 City : Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-5052

C. (Check as appropriate)

- Site Investigation

Report (SIR) \$500 Fee

- Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager : Mr. Ian Curtis
- UST Registration Number : (7 digits): 90029 - 32
- Incident Report Number (10 or 12 digits): _____
- Tank Closure Number C(N)9 (7 characters): Approved by Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E : Yes

Name: Kevin J. Phelan Signature: Kevin J. Phelan UST Cert. No.: 0018436

Firm: Tetra Tech EM, Inc. Firm's UST Cert. Number: US00457

Firm Address: 1 Bank Street, Suite 103 City: Rockaway

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

State: NJ

Zip: 07866

Telephone Number : (973) 9830507, Ext. 230

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

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

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

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

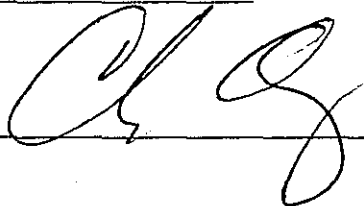
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true,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

Name (Print or Type): Mr. Charles Appleby

Title: BRAC Environmental Coordinator, Evans Area

NJDEP Subsurface Evaluator # 2056

Signature: _____



Company Name: US Army, CECOM, DCSOPS-BID, Fort Monmouth NJ, 07703

Date: November 30, 2000

APPENDIX B

PHOTOGRAPHS OF UST CLOSURE

UST NO. 90029-32



PHOTO 1: View of UST-9307 being removed from the ground (looking south/southwest).

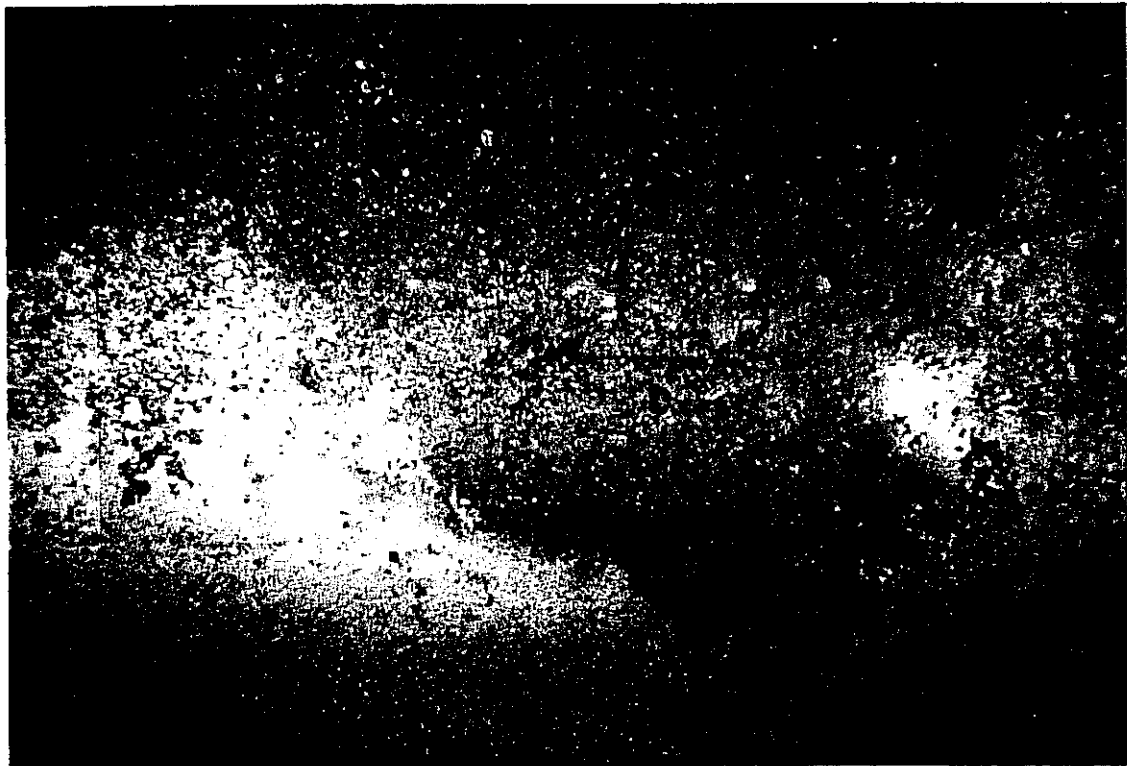


PHOTO 2: View of a 1/4-inch hole on the underside of UST-9307 (located near the northern end the tank).

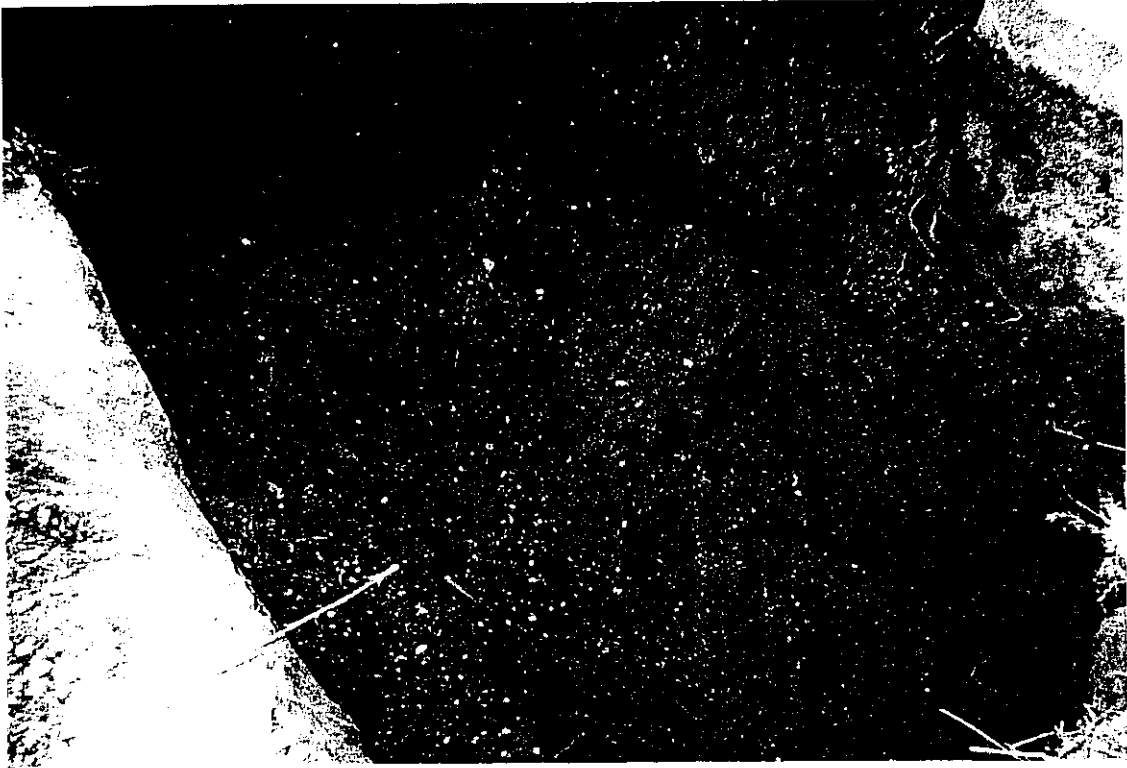


PHOTO 3: View of the sampling locations in the UST-9307 excavation (looking east/northeast).

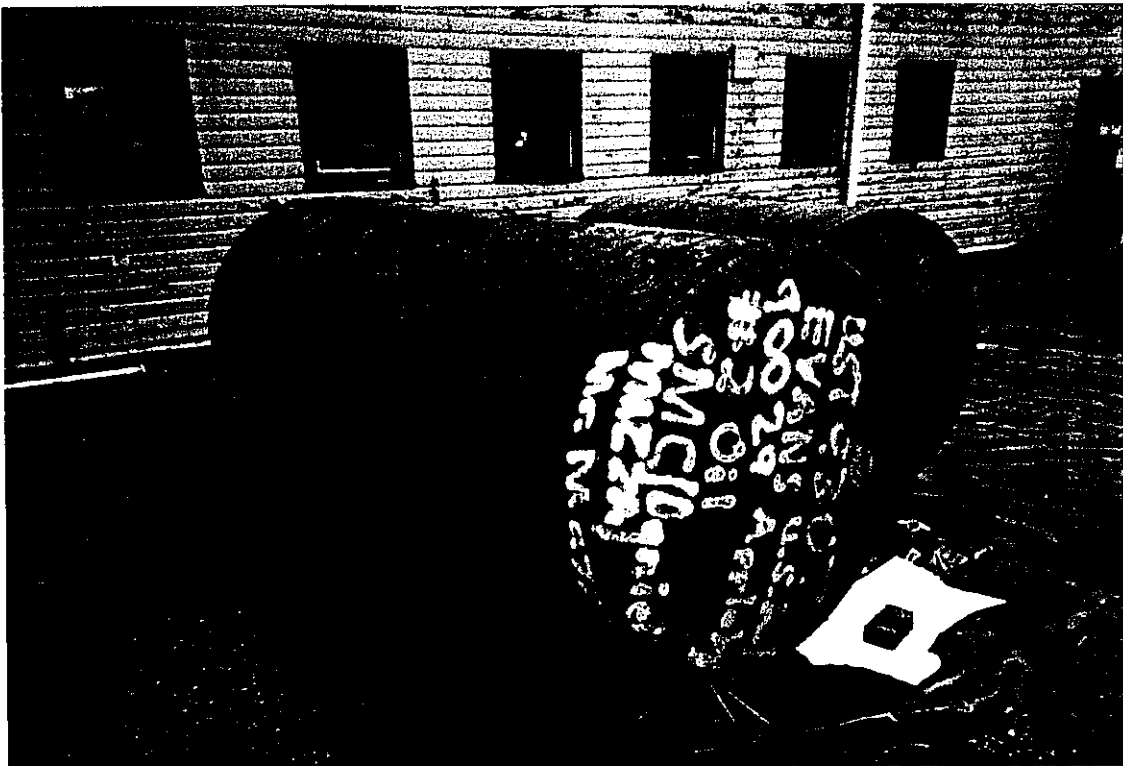


PHOTO 4: View of UST-9307 staged on the west side of Building 9061 awaiting disposal and labeled with all required information.

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA PACKAGE

UST NO. 90029-32

APPENDIX D

UST DISPOSAL CERTIFICATE

UST NO. 90029-32

Sent by: SMC ENVIRONMENTAL SER 81033371875 09/17/97 3:06PM JOB 583 Page 6/7



Reader From:
The Drawing Board
P.O. Box 2844 • Hartford, CT 06114-2844
Call Toll Free: 1-800-827-8228

REORDER ITEM # BLN74

STRAIGHT BILL OF LADING
ORIGINAL - NOT NEGOTIABLE

Shipper No. 001

SMC ENVIRONMENTAL SERVICES GROUP
(Name of Carrier)

Carrier No. _____

Date _____

To: <u>Mazza + Sons, INC.</u>	From: <u>Camp Evans (U.S. Army)</u>
Address: <u>3230 Shatto Road</u>	Street: <u>Building 9307</u>
City: <u>Tuxton Falls, NJ</u> <small>Zip Code: 07753</small>	City: <u>Wall, NJ</u> <small>Zip Code: 07719</small>

No. of Packages (Units)	Weight (Lbs.)	Kind of Packaging, Description of Articles, Special Marks and Markings	Weight (Including its Container)	RATE	CHARGES
①		FOR SUMP ONLY 1,000 Gallon U.S.T. Steel TANK # 90029-32 Building # 9307			

NEMT C.O.D. TO: ADDRESS	COD Amt: \$	C.O.D. FEE: PREPAID <input type="checkbox"/> \$ COLLECT <input type="checkbox"/>
<small>NOTE - When the rate is determined in value, shippers are required to show specifically in writing the agreed or declared value of the property.</small> The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding	<small>This is to certify that the above named article is as described, identified, described, packaged, marked and labeled, and is in proper condition for transportation according to the applicable regulations of the Department of Transportation.</small> Signature _____	TOTAL CHARGES: \$ <small>PREPAID CHARGES</small> <input type="checkbox"/> <small>Payable at destination</small> <input type="checkbox"/> <small>Payable at origin</small>

RECEIVED, subject to the conditions and bills in effect as of the date of the date of this Bill of Lading, the property described above in appropriate good order, except as noted (contents and condition of contents of packages unknown, marked, assigned, and delivered as indicated above which said carrier and/or carrier being undersigned thereunder, in a contract of carriage by person or corporation in possession of the property under the contract of carriage to carry to its usual place of delivery or other destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party of any time interrupted in all or any of said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted by himself and his assigns.

SHIPPER <u>Camp Evans (U.S. Army)</u>	CARRIER <u>SMC ENVIRONMENTAL SERVICES GROUP</u>
PER <u>David H. Dived (Agent)</u>	PER <u>Mark [Signature]</u>
	DATE <u>10/13/97</u>

*Mark with "X" to designate Hazardous Material as defined in Title 49 of the Code of Federal Regulations.

Reorder Item BLN74 The Drawing Board, P.O. Box 2844, Hartford, CT 06114-2844
©EGL, 1997, Printed in U.S.A.

①

SMC Environmental Services Group
A Subsidiary of Science Management Corporation
P.O. Box 850
Valley Forge, Pennsylvania 19482
Telephone (610) 265-2700

CERTIFICATE OF NON-HAZARDOUS VESSEL

FACILITY: Camp Evans (US Army)
Wall NJ
Building 9307
VESSEL: 1,000 gallon steel tank
(Formerly #2 Fuel oil)

This letter is to confirm that the vessel/vessels at the above referenced location has been physically entered (if necessary), degreased, washed/cleaned, and the material contained within has been completely removed and properly disposed. As of 3:00 A.M. (P.M.) on 9/11/97, the above said vessel is certified gas free and has been cleaned following recommended procedures in API PUBLICATION 2015. Due to conditions that SMC Environmental Services Group has no control over, this certification is valid only until the vessel is received by the designated steel recycling facility. SMC Environmental Services Group will not be held liable for any damages which may occur after certification.

SMC ENVIRONMENTAL SERVICES GROUP
SIGNATURE OF CERTIFICATION

David H. Daniels / SMC
Signature

David H. Daniels / site manager
Print or Type Name Here

APPENDIX E

**WASTE MANIFEST FOR
OFF-SITE TRANSPORT OF UST CONTENTS
UST NO. 90029-32**



RDT-Box 5A
 Old Bridge, N.J. 08857
 (908) 721-0900
 Fax (908) 721-0231

STANDARD
 COLLECTION
 ORDER FORM
 175941

GENERATOR/LOCATION

SALES ORDER #

BILL TO (IF DIFFERENT FROM LOCATION)

NAME _____
 INFORMATION ATTENTION LINE _____ ACCOUNT APPROVAL CODE _____
 DELIVERY ADDRESS _____
 CITY _____ STATE _____
 PHONE NUMBER _____ PURCHASE ORDER NUMBER _____
 USA EPA ID NO. (IF APPLICABLE) _____ STATE ID NO. _____

NAME _____
 INFORMATION ATTENTION LINE _____ ACCOUNT APPROVAL CODE _____
 DELIVERY ADDRESS _____
 CITY _____ STATE _____
 PHONE NUMBER _____ PURCHASE ORDER NUMBER _____
 MANIFEST NUMBER _____

SHIPPING INFORMATION

This is to certify that the below 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.

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	SALES REPRESENTATIVE
		1200	Gal	VIRGIN IULC OIL	[Signature]

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	TAX	LINE TOTAL
40500	USED OIL REMOVAL						
40300	ANTI-FREEZE REMOVAL						
40600	USED OIL FILTER REMOVAL						
40501	OILY WATER DISPOSAL						
40502	SLUDGE DISPOSAL						
41001	GASOLINE/WATER						
01	DRUM DISPOSAL						
04	TANK ENTRY						
40800	PARTS WASHER SERVICE						
41500	TRUCK & OPERATOR						
41511	NEW 55 GAL DRUM /17H						
41503	QAQC ANALYTICAL TESTING						
42001	DEXSIL TEST KIT	TAX					
41509	TRANSPORTATION						

1507-16

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION.
 INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES.
 GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED LORCO HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED, BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

Generator certifies that the waste is _____
 In accordance with the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

Wogens W. [Signature]
 Print Name: _____ Title: _____
 Signature: [Signature] Date: 9-9-97
 GENERATOR/CUSTOMER

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C.F.R. 261, and does not accumulate more than 1,000 kilograms of such waste during the month.

LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT TEST RESULTS
 PPM

9307 → 700 gallons

PAYMENT RECEIVED SECTION

CASH TOTAL RECEIVED _____
 CHECK NUMBER _____

CUSTOMER SERVICED EVERY 30 DAYS

In accordance with 40 CFR 266 § 43(5) LORCO has notified the US EPA of its location and used oil management activities.
 [Signature] Date: 9-9-97
 LORCO REPRESENTATIVE



RD1 Box 5A
Old Bridge, N.J. 08857
(908) 721-0900
Fax (908) 721-0231

STANDARD
COLLECTION
ORDER FORM

176848

GENERATOR/LOCATION

SALES ORDER #

BILL TO (IF DIFFERENT FROM LOCATION)

NAME
INFORMATION/ATTENTION LINE
DELIVERY ADDRESS
CITY
STATE
ZIP
PHONE NUMBER
PURCHASE ORDER NUMBER
STATE ID NO.

INFORMATION/ATTENTION LINE
DELIVERY ADDRESS
CITY
STATE
ZIP
PHONE NUMBER
PURCHASE ORDER NUMBER
MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the below 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.

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	SALES REPRESENTATIVE
				Combustible Liquid UN 1202 PG II	CA

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	Tank Volume
40500	USED OIL REMOVAL					
40300	ANTI-FREEZE REMOVAL					
40600	USED OIL FILTER REMOVAL					9307
40501	OILY WATER DISPOSAL		344	Gal		
40502	SLUDGE DISPOSAL					9162
41001	GASOLINE/WATER					
11501	DRUM DISPOSAL					9196
41504	TANK ENTRY					
40800	PARTS WASHER SERVICE					9116
41500	TRUCK OPERATOR		5	hours		
41511	NEW 55 GAL DRUM WITH LID					9003
41503	QAQC ANALYTICAL TESTING					
42001	DEXSIL TEST KIT					9006
41509	TRANSPORTATION					9059
						9031

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION. INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES. GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED LORCO HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

Generator certifies that the waste is Non-Haz
In accordance the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

Print Name: Charles Apples Title: Env. Prod. S.
Signature: [Signature] Date: 10-7-97
GENERATOR/CUSTOMER

SMALL QUANTITY TOTAL GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C.F.R. 261, and does not accumulate more than 1,000 kilograms of such waste during the month.

GENERATOR'S SIGNATURE

LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT TEST RESULTS

PPM

Tank to the North of 9028 had 344 gallons of water

PAYMENT RECEIVED SECTION

CASH <input type="checkbox"/>	TOTAL RECEIVED
CHECK NUMBER	

CUSTOMER SERVICED EVERY 30 DAYS

In accordance with 40 CFR 266 § 43(5) LORCO has notified the US EPA of its location and used oil management activities.

Print Name: Guy Wick
Signature: [Signature] Date: 10-7-97
LORCO REPRESENTATIVE

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

*Building 9392
Camp Evans Area*

NJDEP UST Registration No. 90029-34

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APPENDICES

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Appendix B	Photographs of UST Closure
Appendix C	Soil Sample Analytical Data Package
Appendix D	UST Disposal Certificate
Appendix E	Waste Manifest for Off-site Transport of UST Contents

EXECUTIVE SUMMARY

UST Closure

On December 22, 1997, a steel underground storage tank (UST) was closed by removal at the Camp Evans area of the U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 90029-34 (Fort Monmouth Identification No. 9392), was located south of Building 9392 in the Camp Evans area of Fort Monmouth. The UST was a 1,000-gallon No. 2 fuel oil tank. The UST fill port was located directly above the southern end of the tank.

Site Assessment

The site assessment was performed by Tetra Tech EM Inc. (Tetra Tech) and SMC Environmental Services Group (SMC). Two holes approximately 0.125-inches in diameter were noted in the UST and evidence of potentially contaminated soil was observed surrounding the UST fill port and the sides of the tank. Samples collected at the time the UST was removed contained concentrations of total petroleum hydrocarbons (TPHC) ranging from non-detect to 395.68 milligrams per kilogram (mg/kg). The total amount of soil removed from the excavation was 20 cubic yards.

Site Restoration

After receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with clean native soil from the Building 9392 area, as well as clean soil imported from the New Jersey Sand and Gravel Company. The excavation site was then restored to its original condition.

Conclusions and Recommendations

Based on post-excavation soil sampling results, TPHC concentrations in soil do not exceed the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent soil cleanup criteria of 1,000 mg/kg TPHC used by Fort Monmouth, at the former location of the UST or associated piping. No further action is proposed with regard to the closure and site assessment of UST No. 90029-34 at Building 9392.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 90029-34, was closed at Building 9392 at the Camp Evans area of U.S. Army Fort Monmouth, Fort Monmouth, Wall Township, New Jersey on December 22, 1997. The UST was a steel 1,000-gallon tank containing No. 2 fuel oil.

The UST removal was performed in accordance with the Fort Monmouth UST Management Plan (S.O.P. Number 19), which had previously been approved by the NJDEP. The signed site assessment summary form for UST No. 90029-34 is included in Appendix A.

Based on an inspection of the UST, field screening of subsurface soil, and soil sample analytical results, Tetra Tech has concluded that no significant historical discharges are associated with UST No. 90029-34 or associated piping.

This report was prepared based on information collected at the time of UST closure. Section 1 of this UST closure and site investigation report provides a site description and summarizes UST removal activities. Section 2 describes site investigation activities, including field screening and soil sampling. Section 3 presents the post-excavation soil sampling results. Conclusions and recommendations are presented in Section 4 of this report.

1.1 SITE DESCRIPTION

Building 9392 is located in the main section of the Camp Evans area of the Fort Monmouth Army Base (adjacent to the intersection of Fourth Street and Fifth Street) as shown in Figure 1. UST No. 90029-34 was located south of Building 9392 and associated piping ran approximately 4 feet north and 26 feet west from the UST to Building 9392. The UST fill port area was located directly above the southern end of the tank. A site map is provided in Figure 1 showing the location of the UST removal relative to Building 9392.

1.2 UNDERGROUND STORAGE TANK EXCAVATION AND CLEANING

Because the UST had been placed out-of-service previously, SMC had drained the free product present in the associated piping and then excavated and removed the piping on October 8, 1997 in order to prepare for the installation of new product lines aboveground for the Aboveground Storage Tank (AST) which had been scheduled for installation at Building 9392 (the AST installation was subsequently canceled). The UST was not purged prior to the removal of the piping because of the low volatility of No. 2 fuel oil. Prior to the commencement of UST decommissioning activities on December 22, 1997, surficial soil was excavated to expose the UST. Once the UST was uncovered, SMC cut open the tank with a nonsparking pneumatic cutter and the remaining contents of the tank were removed with drum vacuum equipment. SMC completed cleaning the UST by wiping the interior out with oil absorbent pads.

After the UST was cleaned, it was removed from the excavation, staged temporarily on the asphalt driveway, and examined for holes. Two holes, approximately 0.125-inches in diameter, were observed by the Tetra Tech subsurface evaluator. Appendix B provides photographs of the tank. Soil around the UST was screened visually and with a photoionization detector (PID) and flame ionization detector (FID) for contamination. No evidence of contamination was observed or detected by the PID/FID except for soil located adjacent to the UST fill port and immediately adjacent to the tank. Visual and PID/FID soil screening was also performed along the former location of piping associated with the UST. No contamination was noted anywhere along the former piping length at the time that the piping was removed.

The sludges and residues removed from the UST were transported by Lorco Petroleum Company to its NJDEP-approved petroleum recycling and disposal facility in Old Bridge, New Jersey. Appendix E provides a copy of the waste manifest for the off-site transport of the tank contents.

1.3 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The cleaned tank was transported to Mazza and Sons, Inc. in Tinton Falls, New Jersey for disposal in compliance with all applicable regulations and laws. Appendix D provides a copy of the UST Disposal Certificate. Prior to transport, the UST was labeled with the following information:

- Site of origin
- Contact person
- NJDEP UST facility identification number

- Name of transporter and contact person
- Destination site and contact person

1.4 MANAGEMENT OF EXCAVATED SOILS

Post-excitation soil sampling locations are shown in Figure 2 and discussed in Section 2.2. Based on PID/FID air monitoring results, soil adjacent to the UST fill port and immediately adjacent to the tank was contaminated. This soil was removed to the staging area for disposal off site at a later date and the clean excavated soil and imported clean fill were used to backfill the UST excavation.

2.0 SITE INVESTIGATION ACTIVITIES

In accordance with NJDEP's "Technical Requirements for Site Remediation" and "Field Sampling Procedures Manual," Tetra Tech and SMC personnel conducted the site assessment. The site investigation was managed by Tetra Tech and performed by SMC. All analyses were performed and results reported by the U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory operated by TECOM-Vinnell Services, Inc. (TVS). All sampling was performed under the direct supervision of a NJDEP certified subsurface evaluator in accordance with methods described in NJDEP's "Field Sampling Procedures Manual" dated 1992. Sampling frequency and parameters analyzed complied with applicable regulations at the date of UST closure specified in NJDEP-BUST's document "Interim Closure Requirements for Underground Storage Tank Systems" dated October 1990; revisions dated November 1, 1991. All records of site investigation activities are maintained by Tetra Tech and the Fort Monmouth Department of Public Works (DPW) Environmental Office.

The following parties participated in UST closure and site investigation activities:

- Subsurface Evaluator: Kevin J. Phelan
Employer: Tetra Tech EM Inc.
Telephone No.: (973) 983-0507
NJDEP Certification No.: 0018436
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Telephone No.: (732) 532-4359
NJDEP Company Certification No.: 13461

- Hazardous Waste Hauler: Lorco Petroleum Company
Contact Person: Dan MacKay
Telephone No.: (732) 721-0900
NJDEP Hazardous Waste Hauler No.: S6247

2.1 FIELD SCREENING/MONITORING

Visual screening and field screening using a PID/FID were performed by a NJDEP certified subsurface evaluator to identify potentially contaminated material. Soil excavated from around the associated piping, as well as the UST excavation sidewalls and bottom, did not exhibit any evidence of potential contamination at the time of the UST removal; however, soil adjacent to the UST fill port and immediately adjacent to the tank did exhibit indications of contamination and was transported to the soil staging area.

2.2 SOIL SAMPLING

On December 22, 1997, after UST removal, post-excavation soil samples 9392B1, 9392B2 (Duplicate of 9392B1), 9392B3, 9392N, 9392S, 9392E, 9392W, 9392DS, 9392VL, and 9392R/F were collected from nine locations in the UST excavation. Figure 2 presents the sampling locations. Excavation sidewall samples were collected at the edge of the former UST location, and bottom samples were collected from 0 to 6-inches beneath the former UST location, or 9 to 9.5-feet below ground surface (bgs). The sidewall samples were collected from 8.5 to 9-feet bgs. Sample 9392DS was collected from the center of the excavation from 11 to 11.5-feet bgs. Sample 9392R/F was collected from next to Building 9392 along the former location of the return/feed line piping length of the excavation, which was approximately 30 feet long. Sample 9392R/F was collected from 0.5 to 1-foot bgs. Sample 9392OBS1 was collected from the overburden soil pile to verify that the pile was not contaminated and could be used as clean backfill for the excavation. In addition, sample 9392VL was collected beneath the former vent line location from 0.5 to 1-foot bgs. All samples were analyzed for TPHC and total solids.

Post-excavation soil samples were collected in accordance with standard sampling procedures specified in NJDEP's Field Sampling Procedures Manual" dated 1992. Samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory in Fort Monmouth, New Jersey, for analysis. A summary of post-excavation sampling activities, including parameters analyzed for, is provided in Table 1.

3.0 SOIL SAMPLING RESULTS

To evaluate soil conditions after removal of the UST and associated piping, post-excavation soil samples were collected from nine locations on December 22, 1997. All samples were analyzed for TPHC and total solids. Post-excavation sampling results were compared to the NJDEP residential direct contact soil cleanup criterion of 10,000 mg/kg for total organic contaminants (N.J.A.C. 7:26D and revisions dated February 3, 1994) and the more stringent soil cleanup criterion of 1,000 mg/kg TPHC used by Fort Monmouth. A summary of the analytical results and comparison to the NJDEP soil cleanup criterion is provided in Table 2. Soil sampling locations are shown in Figure 2. The analytical data package is provided in Appendix C.

All of the post-excavation soil samples collected on December 22, 1997, from the UST excavation, from below piping associated with the UST, and from the overburden soil pile contained concentrations of TPHC ranging from non-detect to 395.68 milligrams per kilogram (mg/kg).

4.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results for all post-excavation soil samples for soil remaining in the UST excavation at Building 9392 were below the NJDEP soil cleanup criterion for required VOC analysis.

Based on post-excavation sampling results, soil containing TPHC concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent Fort Monmouth soil cleanup criterion of 1,000 mg/kg TPHC, do not exist in the former location of the UST or associated piping; therefore, no further action is proposed with regard to the closure and site assessment of UST No. 90029-34 at Building 9392.

Legend of Sample Identifications
Camp Evans Area
Wall Township, New Jersey

B	Sample from the bottom of the excavation
W	Samples from the west sidewall of the excavation
E	Samples from the east sidewall of the excavation
N	Samples from the north sidewall of the excavation
S	Samples from the south sidewall of the excavation
RF	Sample from beneath the former location of the return/feed lines of the UST
VL	Sample from beneath the former location of the vent line to the UST
OBS	Sample from the overburden soil pile of a UST excavation to determine if the soil can be used as backfill or must be transported to the contaminated soil stockpile
N21	Sample collected from the north sidewall on the second day of sampling (from a particular UST excavation) first sample (from that particular sidewall or area of the excavation) (NOTE: The "21" designation can be used with any of the letter combinations listed above).
FPS	Soil located directly adjacent to the fill port of the tank ("Fill Port Soil").
BFP	Soil located beneath the fill port of the tank ("Beneath Fill Port")
9116CSP	Contaminated soil pile from the UST-9116 excavation
DS	Deep Sample
9196BE1A	Geoprobe boring performed on the east side of the UST-9196 excavation to investigate contamination from the leaking UST. Last number denotes the boring number and last letter indicates which sample in the sequence.
RFL/B6	Sample from remedial excavation of a leaking remote fill line/what area of the excavation the sample was collected.
RF(CT)	Samples was collected from return feed lines consisting of copper tubing.
RFL(2)	Samples collected from a second remote fill line for a particular UST excavation
RB1	Remedial excavation for a particular building. The second letter and number designate the particular area of the excavation where the sample was collected
CNFRM	Confirmatory sample to confirm that contamination has been removed
CNFM	Another designation for a confirmatory sample
R/F/VL	Return/feed/vent lines. Used at buildings where the return/feed lines and the vent lines were located close together and one sample could be collected for both lines
SCNT1	Sample collected at a location of suspected contamination
(W)E1	Sample collected from the eastern sidewall of the western half of the excavation (remedial excavation).
TP	Test pit/trench
HWAB	Hazardous waste area building (former location)
AST	Above ground storage tank
9105ASTB1	Sample collected at the former location of an AST at the specified building
DEL	Delineation sample to document the extent of contamination
SD	Sample collected from a storm drain
SW	Sample collected from a sidewall of a remedial excavation
CTR	Copper tubing run
CSP-1	Clean soil pile

Table 1
 Summary of Post-Excavation Sampling Activities
 Building 9392, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9392OBS1	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392B1	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392B2	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392B3	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392N	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392S	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392E	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392W	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392DS	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392VL	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9392R/F	12/22/97	12/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

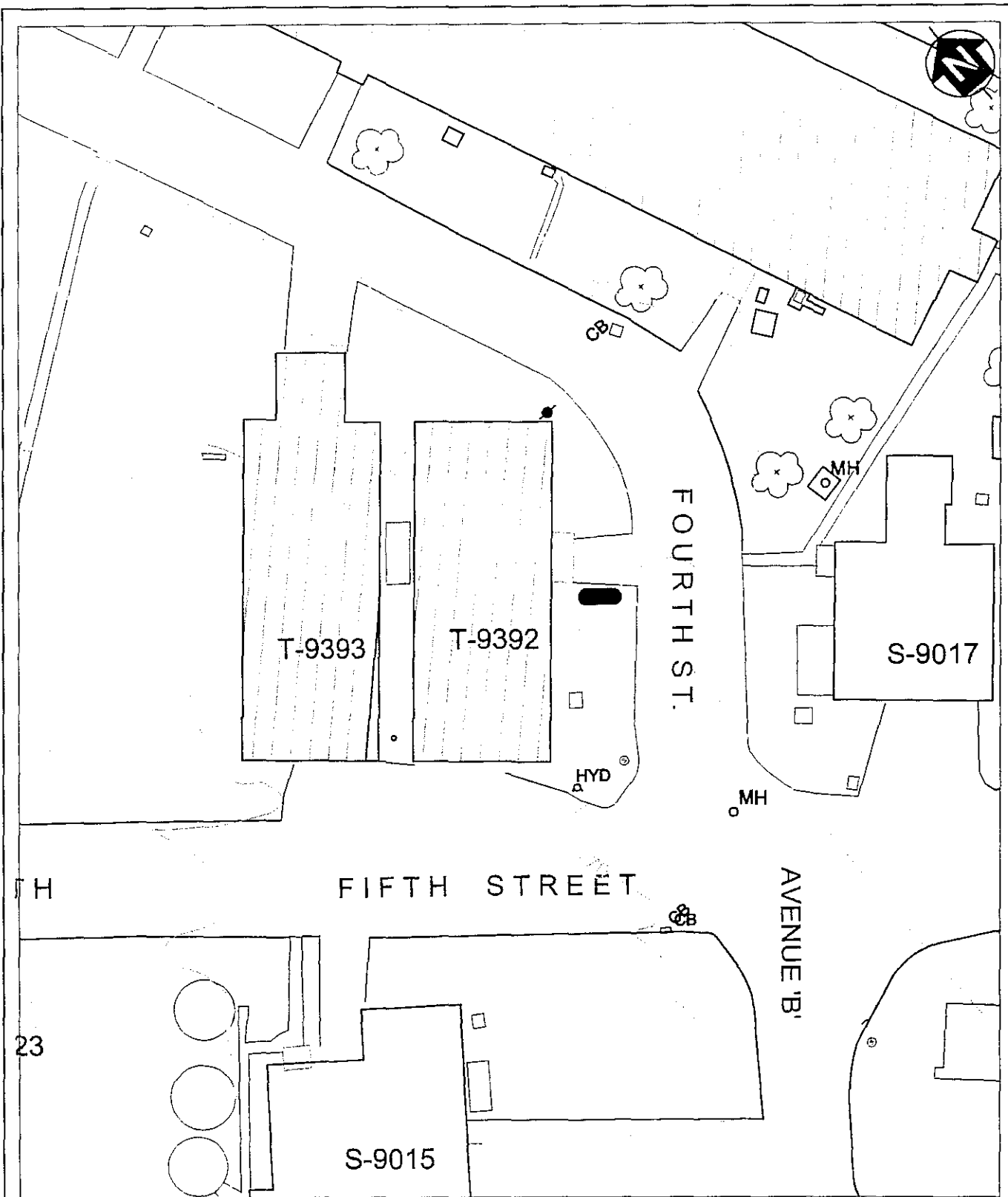
* TPHC Total petroleum hydrocarbon

Table 2
 Post-Excavation Soil Sampling Results
 Building 9392, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9392OBS1	3254.01	12/22/97	12/29 - 30/97	TPHC	171	ND	10,000	No
9392B1	3254.02	12/22/97	12/29 - 30/97	TPHC	163	ND	10,000	No
9392B2	3254.03	12/22/97	12/29 - 30/97	TPHC	160	ND	10,000	No
9392B3	3254.04	12/22/97	12/29 - 30/97	TPHC	164	ND	10,000	No
9392N	3254.05	12/22/97	12/29 - 30/97	TPHC	186	ND	10,000	No
9392S	3254.06	12/22/97	12/29 - 30/97	TPHC	177	ND	10,000	No
9392E	3254.07	12/22/97	12/29 - 30/97	TPHC	195	ND	10,000	No
9392W	3254.08	12/22/97	12/29 - 30/97	TPHC	184	ND	10,000	No
9392DS	3254.09	12/22/97	12/29 - 30/97	TPHC	171	395.68	10,000	No
9392VL	3254.10	12/22/97	12/29 - 30/97	TPHC	180	196.17	10,000	No
9392R/F	3254.11	12/22/97	12/29 - 30/97	TPHC	178	ND	10,000	No

Note:

- * Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
- ND Not detected
- TPHC Total petroleum hydrocarbon



H

FIFTH STREET

FOURTH ST.

AVENUE 'B'

T-9393

T-9392

S-9017

S-9015

23

HYD

MH

MH

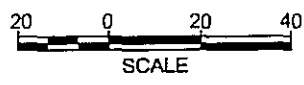
CB

CB

9392.DWG ASC 01/19/99



UNDERGROUND STORAGE TANK



SCALE

EVANS AREA
FORT MONMOUTH, NEW JERSEY

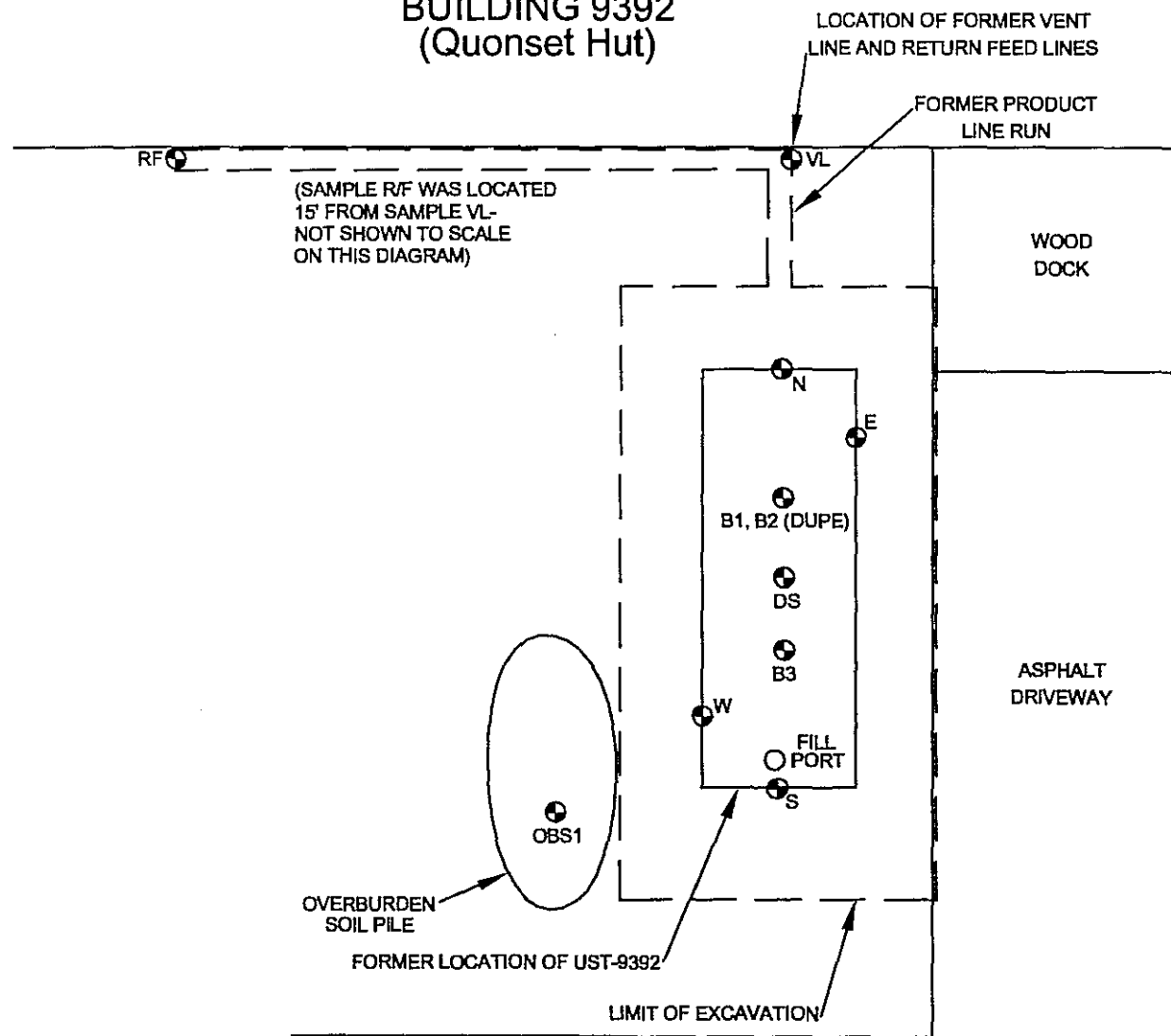
FIGURE 1
BUILDING 9392 - UST REMOVAL LOCATION MAP





SITE NORTH (TOWARD
MONMOUTH BOULEVARD)


BUILDING 9392 (Quonset Hut)



NOTES:

- 1) UST-9392 WAS 10' LONG AND 4' IN DIAMETER
- 2) ALL SAMPLE DESIGNATIONS ARE PRECEDED BY "9392-".
- 3) SAMPLE DEPTHS :
 - A) B1, B2, B3 : 9.0' TO 9.5'
 - B) DS : 11.0' TO 11.5'
 - C) N, E, S, W : 8.5' TO 9.0'
 - D) VL : 0.5' TO 1.0'
 - E) RF : 0.5' TO 1.0'
 - F) OBS1 : PILE
- 4) SAMPLE IDS WERE ASSIGNED BASED ON SITE NORTH TOWARD MONMOUTH BOULEVARD



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 2 BUILDING 9392 UST REMOVAL AND SOIL SAMPLE LOCATIONS
 TETRA TECH EM INC.

9392.DWG -RAM- 01/25/99

APPENDIX A

SIGNED SITE ASSESSMENT SUMMARY FORM

UST NO. 90029-34

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: US Army, Fort Monmouth, Evans Area

Facility Street Address: Building 1207, DCSOPS-BID

Municipality: Wall Township County : Monmouth

Block: 240, 241 and 242 Lot(s): 240 (55.01, 55.02, 55.03 & 55.04), 241 (1), 242 (1.01 & 1.02)

Telephone Number : (732) 239-2427

B. Owner (RP)'s Name: US Army, CECOM

Street Address: DCSOPS-BID, Bldg. 1207 City : Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-5052

C. (Check as appropriate)

- Site Investigation

Report (SIR) \$500 Fee

- Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager : Mr. Ian Curtis
- UST Registration Number : (7 digits): 90029 - 34
- Incident Report Number (10 or 12 digits): _____
- Tank Closure Number C(N)9 (7 characters): Approved by Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E : Yes

Name: Kevin J. Phelan Signature: Kevin J. Phelan UST Cert. No.: 0018436

Firm: Tetra Tech EM, Inc. Firm's UST Cert. Number: US00457

Firm Address: 1 Bank Street, Suite 103 City: Rockaway

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

State: NJ

Zip: 07866

Telephone Number : (973) 9830507, Ext. 230

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

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

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

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

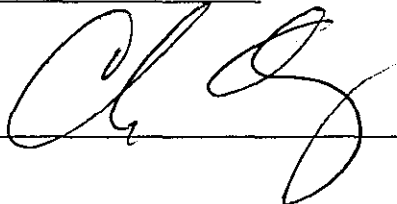
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true,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

Name (Print or Type): Mr. Charles Appleby

Title: BRAC Environmental Coordinator, Evans Area

NJDEP Subsurface Evaluator # 2056

Signature: _____



Company Name: US Army, CECOM, DCSOPS-BID, Fort Monmouth NJ, 07703

Date: November 30, 2000

APPENDIX B

PHOTOGRAPHS OF UST CLOSURE

UST NO. 90029-34

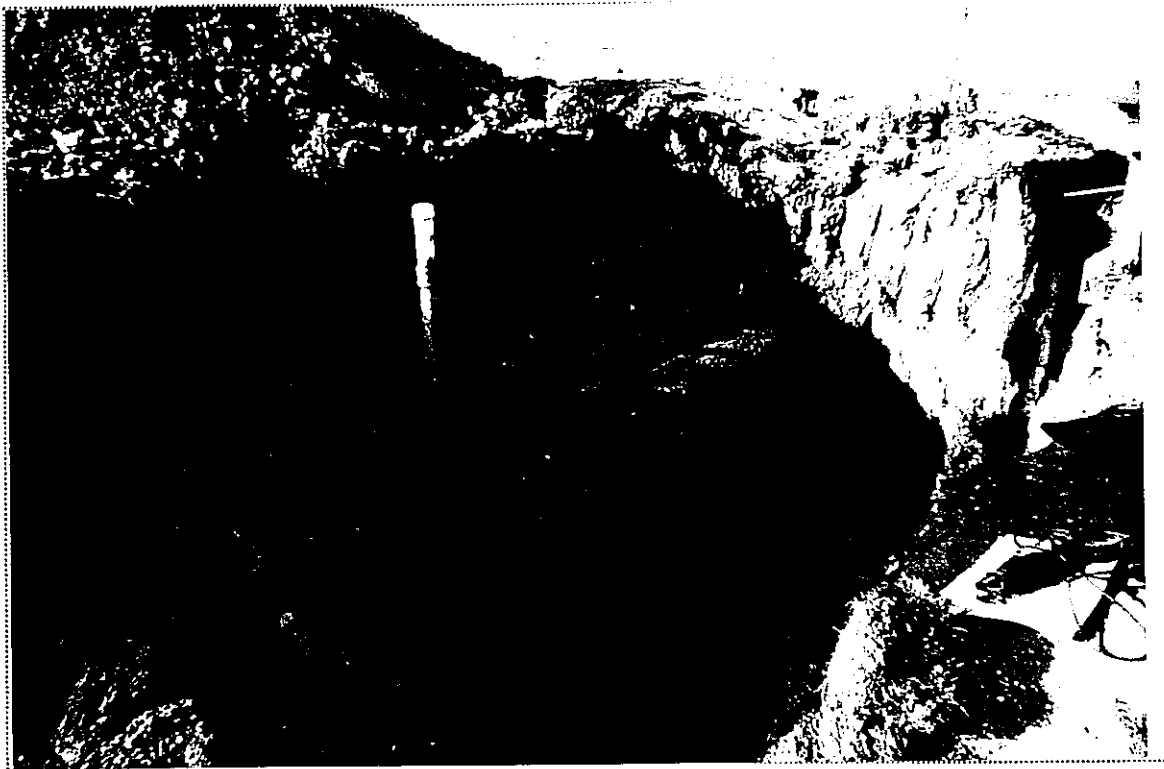


PHOTO 1: View of UST-9392 being uncovered prior to cleaning and removal (looking northwest).



PHOTO 2: View of UST-9392 being removed from the ground (looking west).



PHOTO 3: View of the sampling locations in the UST-9392 excavation (looking south).



PHOTO 4: View of UST-9392 staged on the west side of Building 9061 awaiting disposal and labeled with all the required information.

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA PACKAGE

UST NO. 90029-34

APPENDIX D

UST DISPOSAL CERTIFICATE

UST NO. 90029-34



Order From:
The Drawing Board
P.O. Box 2044 - Hartford, CT 06104-2044
Call Toll Free: 1-800-527-0530

REORDER ITEM # BLN74

STRAIGHT BILL OF LADING
ORIGINAL - NOT NEGOTIABLE

Shipper No. 027
Carrier No. _____
Date _____

SMC ENVIRONMENTAL SERVICES GROUP
(Name of Carrier)

To: <u>Mazza + Sons, INC</u>	From: <u>U.S. Army Camp Evans</u>
Street: <u>3230 Shafto Road</u>	Street: <u>Building 9392</u>
Zip Code: <u>07753</u>	City: <u>Wall NJ 07719</u>

No. Shipping Units	Weight (Subject to Carriage)	RATE	CHARGES
①			
<p>FOR SERAP ONLY</p> <p>1-1,000 Gallon U.S.F. Shell</p> <p>Building # 9392</p> <p>TANK # 90029-34</p>			

REMIT C.O.D. TO: ADDRESS	COD Amt: \$	C.O.D. FEE: PREPAID <input type="checkbox"/> \$ COLLECT <input type="checkbox"/>
<small>NOTE - When the rate is dependent on value, please refer to the contract or other documents for the correct rate of the property.</small>	<small>This is to certify that the above named material is as properly classified, described, packaged, marked and braced as per the proper regulation for transportation according to the applicable regulations of the Department of Transportation.</small>	<small>Subject to Section 7 of the provisions of this bill of lading, the carrier is not responsible for the loss of or damage to the property if the carrier shall not be liable in case of the shipment without payment of freight and other lawful charges.</small>
Signature of Shipper	Signature of Consignor	TOTAL CHARGES: \$

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown, repacked, reweighed, and resealed as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER <u>U.S. Army Camp Evans</u>	CARRIER <u>SMC ENVIRONMENTAL SERVICES GROUP</u>
PER <u>David H. Daniels (Agent)</u>	PER <u>Mark C. Small</u>
	DATE <u>1/19/98</u>

*Mark with "X" to designate Hazardous Material as defined in Title 49 of the Code of Federal Regulations. Reorder Item BLN74 The Drawing Board, P.O. Box 2044, Hartford, CT 06104-2044 ©EGL, 1992, Printed in U.S.A.

1995 8:52PM FROM JMT ENVIRON. TECH 610 789 6149

SMC Environmental Services Group
A Subsidiary of Science Management Corporation
P.O. Box 859
Valley Forge, Pennsylvania 19482
Telephone (610) 265-2700

CERTIFICATE OF NON-HAZARDOUS VESSEL

FACILITY: Camp Evans (U.S. Army)
Wall, NJ
Building # 9392
VESSEL: 1,000-Gallon steel UST
(Formerly # 2 Fuel oil)

This letter is to confirm that the vessel/vessels at the above referenced location has been physically entered (if necessary), degreased, washed/cleaned, and the material contained within has been completely removed and properly disposed. As of 3:00 A.M./P.M. on 12/22/97, the above said vessel is certified gas free and has been cleaned following recommended procedures in API PUBLICATION 2015. Due to conditions that SMC Environmental Services Group has no control over, this certification is valid only until the vessel is received by the designated steel recycling facility. SMC Environmental Services Group will not be held liable for any damages which may occur after certification.

SMC ENVIRONMENTAL SERVICES GROUP
SIGNATURE OF CERTIFICATION

David H. Daniels
Signature

David H. Daniels / site manager
Print or Type Name Here

APPENDIX E

**WASTE MANIFEST FOR
OFF-SITE TRANSPORT OF UST CONTENTS
UST NO. 90029-34**



110 Bridge, N.J. 08007
 (908) 721-0900
 Fax (908) 721-0231

STANDARD
 COLLECTION
 ORDER FORM

181260

GENERATOR/LOCATION CAMP QUINS AREA SALES ORDER #

BILL TO (IF DIFFERENT FROM LOCATION)

NAME SMG Environmental Services
 INFORMATION/ATTENTION LINE
 ACCOUNT APPROVAL CODE
 DELIVERY ADDRESS
Wall NJ
 CITY STATE ZIP
 PURCHASE ORDER NUMBER
 STATE ID NO. NA

NAME SMG Environmental Services
 INFORMATION/ATTENTION LINE
 ACCOUNT APPROVAL CODE
 DELIVERY ADDRESS
501 Attendale Road
King of Prussia PA 19406
 CITY STATE ZIP
 PHONE NUMBER (610) 265-2700 PURCHASE ORDER NUMBER 16898
 MANIFEST NUMBER 9779

SHIPPING INFORMATION

This is to certify that the below 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.

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	SALES REPRESENTATIVE
-----	------	------	------	---	----------------------

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	TAX	LINE TOTAL
40500	USED OIL REMOVAL		<u>X600</u>				
40300	ANTI-FREEZE REMOVAL						
40600	USED OIL FILTER REMOVAL						
40501	OILY WATER DISPOSAL						
40502	SLUDGE DISPOSAL						
41001	GASOLINE/WATER						
41501	DRUM DISPOSAL						
404	TANK ENTRY						
400	PARTS WASHER SERVICE						
4500	TRUCK & OPERATOR		<u>1 AM - 1030 AM</u>				
41511	NEW 55 GAL DRUM /17H						
41503	QAQC ANALYTICAL TESTING						
42001	DEXSIL TEST KIT	TAX					
41509	TRANSPORTATION						

600 gallons

3.5 hours

Pumped out drums & tank

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION.
 INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES.
 GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED LORCO HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

\$

Generator certifies that the waste is _____
 In accordance the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

DINKER N. DESAI Title
 Signature _____ Date _____
 GENERATOR/CUSTOMER

SMALL QUANTITY TOTAL GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C.F.R. 261, and does not accumulate more than 1,000 kilograms of such waste during the month.

GENERATOR'S SIGNATURE

LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT TEST RESULTS
1000 PPM

PAYMENT RECEIVED SECTION

CASH <input type="checkbox"/>	TOTAL RECEIVED
CHECK NUMBER	

CUSTOMER SERVICED EVERY 30 DAYS

In accordance with 40 CFR 266 § 43(5) LORCO has notified the US EPA of its location and used oil management activities.

JOHN SALVATO Print Name
 Signature _____ Date 12/31/95
 LORCO REPRESENTATIVE

ORIGINAL



RD. 1, BOX 5A - OLD BRIDGE, NJ 08857

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. *N/A*

Manifest No. *09779*

2. Page 1 of 1

NHZ 009779

3. Generator's Name and Mailing Address
*US Army Communications Electronics Command
CAMP EVANS AREA C/O J. Fallon Bldg 173
ATTN: SCIFM-PW-EV
FT Monmouth, NJ 07703*

4. Generator's Phone
(732) 427-4371

6. US EPA ID Number
N J D 0 8 4 0 4 4 0 6 4

A. Transporter's Phone
908 721-0900

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
*LIONETTI OIL RECOVERY CC INC DBA LORCO PETROLEUM SVCS
RUNYON&CHEESEQUAKE RDS
OLD BRIDGE, NJ 08857*

10. US EPA ID Number
N J D 0 8 4 0 4 4 0 6 4

C. Facility's Phone
908 721-0900

11. Waste Shipping Name and Description

12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
<i>00</i>	<i>1-TT</i>	<i>X.600</i>	<i>G</i>

a. *PETROLEUM OIL (PETROLEUM OIL)
COMBUSTIBLE LIQUID UN1270 PGIII*

b.

c.

d.

Additional Descriptions for Materials Listed Above
*T, L PETROLEUM OIL 90 %
WATER 10 %*

E. Handling Codes for Wastes Listed Above
T04 FILTRATION

15. Special Handling Instructions and Additional Information
*24 HR EMERGENCY RESPONSE#(908) 721-0900
DECAL#*708* ERG#128 DEXSIL TEST KIT RESULTS *1000* PPM
MANIFEST USED FOR TRACKING PURPOSES ONLY*

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

Printed/Typed Name
X DINKEL M. DESAI

Signature
X [Signature]

Month Day Year
12 31 97

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name
JOHN SAVATORE

Signature
[Signature]

Month Day Year
11 23 97

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name

Signature

Month Day Year

GENERATOR

TRANSPORTER

FACILITY



GENERATOR CERTIFICATION

I hereby certify to the best of my knowledge that the waste described on Hazardous Waste Manifest No.

9779 dated 12 31 97,

is generated by one or more of the following processes and does not contain more than 2 ppm polychlorinated biphenyls (P.C.B.'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.

*This used oil product was tested on site, before pumping with a dexsil C.D.T. test kit. Results: _____ PPM halogens.

I am duly authorized to sign said certification.

Generator US Army COMMUNICATIONS ELECTRONICS COMMAND CAMP GUINS AFB

Generator's EPA ID No. NJ3210020324

Address 90 JOSEPH FAJON BLDG 112
AND SARA BLVD FORT MONMOUTH NJ 07703

Print Name DINKEL. M. DESAI Signature R. L. R

Title ENVIRONMENTAL ENGINEER

Date 11/6/97

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Remedial Investigation Report

*Building 9007
Camp Evans Area*

TABLE OF CONTENTS

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1.0 EXPLORATORY/REMEDIAL ACTIVITIES.....	2
1.1 Site Description	2
1.2 Remedial Excavation Activities	3
1.3 Management Of Excavated Soils.....	3
2.0 SITE INVESTIGATION ACTIVITIES	3
2.1 Field Screening/Monitoring	4
2.2 Soil Sampling.....	4
3.0 SOIL SAMPLING RESULTS	5
4.0 CONCLUSIONS AND RECOMMENDATIONS.....	6

TABLES

Table 1	Summary of Remedial Sampling Activities
Table 2	Remedial Soil Sampling Results (TPHC)
Table 3	

FIGURES

Figure 1	Building 9007 – Remedial Excavation Location Map
Figure 2	Building 9007 – Remedial Excavation and Soil Sample Locations

APPENDICES

Appendix A	Signed Site Assessment Summary
Appendix B	Photographs of Remedial Excavation
Appendix C	Soil Sample Analytical Data Package

EXECUTIVE SUMMARY

Remedial Excavation

Between January 21 through February 7, 2000 and July 19 through August 8, 2000, remedial excavation and sampling was performed at the Camp Evans area of the U.S. Army Fort Monmouth, Wall Township, New Jersey. The remedial excavation was located south of Building 9007 in the Camp Evans area and was performed to remediate contamination found during the excavation of a sanitary sewer.

Site Assessment

The site assessment was performed by Tetra Tech EM Inc. (Tetra Tech) and Versar, Inc. (Versar) (formerly SMC Environmental Services Group). Samples collected at the time the remedial excavations were performed contained concentrations of total petroleum hydrocarbons (TPHC) ranging from non-detect to 29,847.70 milligrams per kilogram (mg/kg). After additional soil was excavated and removed, soil remaining in the excavation contained concentrations of TPHC ranging from non-detectable to 7,954.53 mg/kg. Samples collected at the same time for volatile organic compound (VOC) analysis revealed non-detectable concentrations of VOCs. The total amount of soil removed from the excavation was 239 cubic yards.

Site Restoration

After receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with clean soil imported from the New Jersey Sand and Gravel Company. The excavation site was then restored to its original condition.

Conclusions and Recommendations

Based on post-excavation soil sampling results, TPHC and VOC concentrations in soil in this area near Building 9007 do not exceed the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg. No further action is proposed with regard to the remedial TPHC excavation at Building 9007.

1.0 EXPLORATORY/REMEDIAL ACTIVITIES

A remedial excavation was performed south of Building 9007 at the Camp Evans area of the U.S. Army Fort Monmouth, Wall Township, New Jersey between January 21 through February 7, 2000 and July 19 through August 8, 2000. The excavation was performed to remediate known TPHC contamination that was discovered during the excavation of a sanitary sewer line.

The remedial excavation was performed in accordance with the Site Assessment Section of the Fort Monmouth UST Management Plan (S.O.P. Number 19), which had previously been approved by the NJDEP. The signed site assessment summary form is included in Appendix A.

Based on an inspection of the remedial excavation, field screening of subsurface soil, and soil sample analytical results, Tetra Tech has concluded that a significant historical discharge and/or contaminated backfill was associated with this area.

This report was prepared based on information collected at the time that the remedial excavation was performed. Section 1 of this remedial investigation report provides a site description and summarizes remedial excavation activities. Section 2 describes the remedial site investigation activities, including field screening and soil sampling. Section 3 presents the post-excavation soil sampling results. Conclusions and recommendations are presented in Section 4 of this report.

1.1 SITE DESCRIPTION

Building 9007 is located in the northern portion of the main section of the Camp Evans area of the Fort Monmouth Army Base (adjacent to Monmouth Boulevard and near the intersection of Monmouth Boulevard and Marconi Road), as shown in Figure 1. The remedial excavation was located south of Building 9007. A site map is provided in Figure 1 showing the location of the remedial excavation relative to Building 9007.

1.2 REMEDIAL EXCAVATION ACTIVITIES

Tetra Tech began excavation at the former location of the sanitary sewer line south of Building 9007 where the contamination had first been discovered. Subsequently, as additional contamination was discovered, the excavation was extended to the northeast and southwest. During excavation activities, soil was screened visually and with a photoionization detector (PID)/flame ionization detector (FID). After contaminated soil had been removed and transported to the staging area, post-excavation soil samples were collected to document that the excavation was clean or that any contamination that remained was below the NJDEP soil cleanup criteria of 10,000 mg/kg for total organic contaminants.

1.3 MANAGEMENT OF EXCAVATED SOILS

Post-excavation soil sampling locations are shown in Figure 2 and discussed in Section 2.2. Based on PID/FID air monitoring results and TPHC results from post-excavation soil samples, soil in the remedial excavation varied from uncontaminated to significantly contaminated (see Figure 2 and Table 2). All significantly contaminated soil was removed to the staging area for disposal off site at a later date, and imported clean fill was used to backfill the excavation.

2.0 SITE INVESTIGATION ACTIVITIES

In accordance with NJDEP's "Technical Requirements for Site Remediation" and "Field Sampling Procedures Manual," Tetra Tech and Versar personnel conducted the site assessment. The site investigation was managed by Tetra Tech and performed by Versar. All analyses were performed and results reported by the U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory operated by TECOM-Vinnell Services, Inc. (TVS). All sampling was performed under the direct supervision of a NJDEP certified subsurface evaluator in accordance with methods described in NJDEP's "Field Sampling Procedures Manual" dated 1992. Sampling frequency and parameters analyzed complied with applicable regulations at the date of UST closure specified in NJDEP-BUST's document "Interim Closure Requirements for Underground Storage Tank Systems" dated October 1990; revisions dated November 1, 1991. All records of site investigation activities are maintained by Tetra Tech and the Fort Monmouth Department of Public Works (DPW) Environmental Office.

The following parties participated in UST closure and site investigation activities:

- Subsurface Evaluator: Kevin J. Phelan
Employer: Tetra Tech EM Inc.
Telephone No.: (973) 983-0507
NJDEP Certification No.: 0018436
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Telephone No.: (732) 532-4359
NJDEP Company Certification No.: 13461

2.1 FIELD SCREENING/MONITORING

Visual screening and field screening using a PID/FID were performed by a NJDEP-certified subsurface evaluator to identify potentially contaminated material. Soil removed from the excavation sidewalls and bottom did exhibit evidence of contamination at the time the remedial excavation was performed, and was removed to the staging area.

2.2 SOIL SAMPLING

On January 21, 2000, two test trenches were excavated to delineate the extent of contamination, and post-excavation samples TP-A(1), TP-A(2), and TP-A(3) were collected from three locations in the first test trench. Figure 2 presents the sampling locations (see Appendix B for photographs of excavations). Sample TP-A(1) was collected from 1 to 1.5 feet below ground surface (bgs), sample TP-A(2) was collected from 4 to 4.5 feet bgs, and sample TP-A(3) was collected from 5 to 5.5 feet bgs. All samples were analyzed for TPHC and total solids.

Analytical results for the original post excavation samples revealed 22,300.25 mg/kg TPHC at the TP-A(1) sample location and 17,041.22 mg/kg TPHC at the TP-A(2) sample location. These concentrations significantly exceed 1,000 mg/kg TPHC, which is the NJDEP's criterion for additional soil removal/remediation or for required volatile organic compound (VOC) sampling. As a result, Tetra Tech and Versar continued to excavate contaminated soil and collect post-excavation samples to document soil conditions and delineate the extent of contamination. This additional excavation and sampling occurred through February 9, 2000. Analytical results varied significantly from non-detect to 29,847.70 mg/kg TPHC (see Figure 2 and Table 2 for soil sample locations and analytical results).

Due to budget limitations, Tetra Tech and Versar completed the initial remedial excavation and backfilled the excavation with imported clean backfill material. At the time the initial excavation was backfilled, analytical results indicated that the excavation was clean except for the eastern end of the excavation where sample analytical results ranged in TPHC concentration from 231.71 to 9,740.25 mg/kg. These results were reported to Fort Monmouth.

Upon approval of an additional scope of work (including the heavy metal remediation in the Building 9007 footprint), Tetra Tech and Versar resumed excavating contaminated soil from the area on July 19 through August 8, 2000. The final sample analytical results (see Figure 2 and Table 2) revealed TPHC concentrations of 363.21 to 8,684.79 mg/kg; however, samples collected for VOC analysis at the same time as the final TPHC samples revealed non-detectable concentrations of VOCs.

During preparation of this remedial investigation report, it was discovered that a sample at the western end of the excavation had a result of 1,352.06 mg/kg TPHC, which required that a VOC sample be collected and analyzed. As a result, Tetra Tech and TVS completed a series of four Geoprobe borings on November 8, 2000 (four borings were conducted to locate the same contamination that had been observed previously). Tetra Tech collected a sample and duplicate sample for TPHC and VOC analysis. Sample analytical results revealed non-detectable concentrations of TPHC, and the VOC concentrations were below the method detection limits (see Appendix C for sample analytical data package).

In addition to the above-mentioned Geoprobe borings and sampling, a polychlorinated biphenyls (PCB) result of 2.065 mg/kg was found during a review of the results of sediment sampling at the bottom of the storm sewer manhole. Tetra Tech and Versar therefore re-excavated and removed the manhole on November 13, 2000 and collected post-excavation samples along the bottom and sidewalls of the excavation for TPHC, VOCs, and PCB analysis (see Figure 2 and Table 2). The laboratory analytical results indicated that TPHC concentrations ranged from non-detectable to 385.54 mg/kg, VOC concentrations were below the method detection limit, and PCB concentrations were non-detectable.

3.0 SOIL SAMPLING RESULTS

To evaluate soil conditions after removal of contaminated soil, post-excavation soil samples were collected from seventy locations in and surrounding the remedial excavation. All samples were analyzed for TPHC and total solids. Post-excavation sampling results were compared to the NJDEP residential

direct contact soil cleanup 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 criterion is provided in Table 2. Soil sampling locations are shown in Figure 2. The analytical data package is provided in Appendix C.

All of the post-excavation soil samples collected on January 30, 1998 and February 10, 1998, contained concentrations of TPHC ranging from non-detect to 3,300.15 mg/kg. The samples collected on March 2, 1998 contained non-detectable concentrations of TPHC.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results for all post-excavation soil samples for soil remaining in the remedial excavation at Building 9007 were below the NJDEP soil cleanup criterion.

Based on post-excavation sampling results, soil containing TPHC concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg no longer exists in the former location of the sanitary sewer line and remedial excavation; therefore, no further action is proposed with regard to the site assessment at Building 9007.

Legend of Sample identifications
Camp Evans Area
Wall Township, New Jersey

B	Sample from the bottom of the excavation
W	Samples from the west sidewall of the excavation
E	Samples from the east sidewall of the excavation
N	Samples from the north sidewall of the excavation
S	Samples from the south sidewall of the excavation
RF	Sample from beneath the former location of the return/feed lines of the UST
VL	Sample from beneath the former location of the vent line to the UST
OBS	Sample from the overburden soil pile of a UST excavation to determine if the soil can be used as backfill or must be transported to the contaminated soil stockpile
N21	Sample collected from the north sidewall on the second day of sampling (from a particular UST excavation) first sample (from that particular sidewall or area of the excavation) (NOTE: The "21" designation can be used with any of the letter combinations listed above).
FPS	Soil located directly adjacent to the fill port of the tank ("Fill Port Soil").
BFP	Soil located beneath the fill port of the tank ("Beneath Fill Port")
9116CSP	Contaminated soil pile from the UST-9116 excavation
DS	Deep Sample
9196BE1A	Geoprobe boring performed on the east side of the UST-9196 excavation to investigate contamination from the leaking UST. Last number denotes the boring number and last letter indicates which sample in the sequence.
RFL/B6	Sample from remedial excavation of a leaking remote fill line/what area of the excavation the sample was collected.
RF(CT)	Samples was collected from return feed lines consisting of copper tubing.
RFL(2)	Samples collected from a second remote fill line for a particular UST excavation
RB1	Remedial excavation for a particular building. The second letter and number designate the particular area of the excavation where the sample was collected
CNFRM	Confirmatory sample to confirm that contamination has been removed
CNFM	Another designation for a confirmatory sample
R/F/VL	Return/feed/vent lines. Used at buildings where the return/feed lines and the vent lines were located close together and one sample could be collected for both lines
SCNT1	Sample collected at a location of suspected contamination
(W)E1	Sample collected from the eastern sidewall of the western half of the excavation (remedial excavation).
TP	Test pit/trench
HWAB	Hazardous waste area building (former location)
AST	Above ground storage tank
9105ASTB1	Sample collected at the former location of an AST at the specified building
DEL	Delineation sample to document the extent of contamination
SD	Sample collected from a storm drain
SW	Sample collected from a sidewall of a remedial excavation
CTR	Copper tubing run
CSP-1	Clean soil pile

Table 1
 Summary of Remedial Sampling Activities
 Building 9007, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
TPA(1)	1/21/00	1/24/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPA(2)	1/21/00	1/24/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPA(3)	1/21/00	1/24/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPD(1)	1/28/00	1/31/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007S1	1/28/00	1/31/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007S2	1/28/00	1/31/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007B2	1/28/00	1/31/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007E1	2/2/00	2/3/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007N1	2/2/00	2/3/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007BMH	2/2/00	2/3/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007B3	2/3/00	2/4/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007B4	2/3/00	2/4/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007N2	2/3/00	2/4/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007S3	2/3/00	2/4/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007S4	2/3/00	2/4/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007N3	2/3/00	2/4/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007W/N1	2/4/00	2/7/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007W/B1	2/4/00	2/7/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007W/S1	2/4/00	2/7/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007W/S1	2/4/00	2/7/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007W/W1	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007W/W2	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007W/W3	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007W/S2	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007CBF1	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007CBF2	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007E/B1	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007E/N1	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007E/S1	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007E/E1	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007E/E2	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007E/S2	2/7/00	2/8/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007W/CS1	2/9/00	2/10/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9007(M)SP1	2/9/00	2/10/00	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Table 1
 Summary of Remedial Sampling Activities
 Building 9007, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9007(E)-OSP(A)	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-B3	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-B4	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-B2	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-B(U.S)	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-N2	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-N3	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-W2	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-E3	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-S3	7/19/00	7/21/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-W3	7/31/00	8/1/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-B5	7/31/00	8/1/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-N4	7/31/00	8/1/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-S4	7/31/00	8/1/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-E5	7/31/00	8/1/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-N5	7/31/00	8/1/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-N6	7/31/00	8/1/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E)-S5	7/31/00	8/1/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E/NE)-B1	8/8/00	8/10/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E/NE)-N1	8/8/00	8/10/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E/NE)-N2	8/8/00	8/10/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E/NE)-W1	8/8/00	8/10/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E/NE)-S1	8/8/00	8/10/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025
9007(E/NE)-E1	8/8/00	8/10/00	Soil	Post-Excavation	TPHC	OAQ-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Table 2
Remedial Soil Sampling Results (TPHC)
Building 9007, Camp Evans Area
Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
TPA(1)	5112.01	1/21/00	1/24/00	TPHC	170	22,300.25	10,000	Yes
TPA(2)	5112.02	1/21/00	1/24/00	TPHC	160	17,041.22	10,000	Yes
TPA(3)	5112.03	1/21/00	1/24/00	TPHC	168	265.12	10,000	No
TPD(1)	5128.01	1/28/00	1/31/00	TPHC	173	ND	10,000	No
9007S1	5128.02	1/28/00	1/31/00	TPHC	162	29,847.70	10,000	Yes
9007S2	5128.03	1/28/00	1/31/00	TPHC	175	3,451.19	10,000	Yes
9007B2	5128.04	1/28/00	1/31/00	TPHC	174	ND	10,000	No
9007E1	5139.04	2/2/00	2/3-4/00	TPHC	182	1,978.76	10,000	Yes
9007N1	5139.05	2/2/00	2/3-4/00	TPHC	180	ND	10,000	No
9007BMH	5139.06	2/2/00	2/3-4/00	TPHC	191	ND	10,000	No
9007B3	5142.01	2/3/00	2/4/00	TPHC	194	ND	10,000	No
9007B4	5142.02	2/3/00	2/4/00	TPHC	190	ND	10,000	No
9007N2	5142.03	2/3/00	2/4/00	TPHC	186	ND	10,000	No
9007S3	5142.04	2/3/00	2/4/00	TPHC	187	ND	10,000	No
9007S4	5142.05	2/3/00	2/4/00	TPHC	167	378.91	10,000	No
9007N3	5142.06	2/3/00	2/4/00	TPHC	192	463.35	10,000	No
9007W/N1	5145.03	2/4/00	2/7/00	TPHC	170	8,615.54	10,000	Yes
9007W/B1	5145.04	2/4/00	2/7/00	TPHC	180	ND	10,000	Yes
9007W/S1	5145.05	2/7/00	2/8-9/00	TPHC	175	ND	10,000	No
9007W/W1	5154.01	2/7/00	2/8-9/00	TPHC	174	961.57	10,000	Yes
9007W/W2	5154.02	2/7/00	2/8-9/00	TPHC	177	1,352.06	10,000	No
9007W/W3	5154.03	2/7/00	2/8-9/00	TPHC	172	368.38	10,000	No
9007W/S2	5154.04	2/7/00	2/8-9/00	TPHC	185	275.91	10,000	No
9007CBF1	5154.05	2/7/00	2/8-9/00	TPHC	161	210.75	10,000	No
9007CBF2	5154.06	2/7/00	2/8-9/00	TPHC	173	396.10	10,000	No
9007E/B1	5154.07	2/7/00	2/8-9/00	TPHC	169	7,032.19	10,000	Yes
9007E/N1	5154.08	2/7/00	2/8-9/00	TPHC	163	9,740.35	10,000	Yes
9007E/S1	5154.09	2/7/00	2/8-9/00	TPHC	172	793.13	10,000	No

Note:

Samples collected on 2/6/98 were re-analyzed between 2/19/98 and 2/21/98 after a malfunction was discovered in the laboratory instrumentation. The sample results were unchanged after the re-analysis.

* Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria
 ND Not detected
 TPHC Total petroleum hydrocarbons

Table 2
Remedial Soil Sampling Results (TPHC)
Building 9007, Camp Evans Area
Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9007E/E1	5154.10	2/7/00	2/8-9/00	TPHC	177	1,590.59	10,000	Yes
9007E/E2	5154.11	2/7/00	2/8-9/00	TPHC	179	2,190.87	10,000	Yes
9007E/S2	5154.12	2/7/00	2/8-9/00	TPHC	170	231.71	10,000	No
9007W/CS1	5158.01	2/9/00	2/10-11/00	TPHC	191	1,332.04	10,000	Yes
9007(M)SP1	5158.03	2/9/00	2/10-11/00	TPHC	175	1,657.61	10,000	Yes
9007(E)-OSP(A)	5546.01	7/19/00	7/21-22/00	TPHC	164	1,184.85	10,000	Yes
9007(E)-B3	5546.02	7/19/00	7/21-22/00	TPHC	178	1,326.19	10,000	Yes
9007(E)-B4	5546.03	7/19/00	7/21-22/00	TPHC	177	7,151.44	10,000	Yes
9007(E)-B2	5546.04	7/19/00	7/21-22/00	TPHC	171	3,675.71	10,000	Yes
9007(E)-B(U.S)	5546.05	7/19/00	7/21-22/00	TPHC	170	16,295.04	10,000	Yes
9007(E)-N2	5546.06	7/19/00	7/21-22/00	TPHC	176	1,005.33	10,000	Yes
9007(E)-N3	5546.07	7/19/00	7/21-22/00	TPHC	168	623.84	10,000	No
9007(E)-W2	5546.08	7/19/00	7/21-22/00	TPHC	178	ND	10,000	No
9007(E)-E3	5546.09	7/19/00	7/21-22/00	TPHC	175	ND	10,000	No
9007(E)-S3	5546.10	7/19/00	7/21-22/00	TPHC	179	6,945.81	10,000	Yes
9007(E)-W3	5576.01	7/31/00	8/1-2/00	TPHC	184	458.18	10,000	No
9007(E)-B5	5576.02	7/31/00	8/1-2/00	TPHC	175	988.64	10,000	No
9007(E)-N4	5576.03	7/31/00	8/1-2/00	TPHC	161	ND	10,000	No
9007(E)-S4	5576.04	7/31/00	8/1-2/00	TPHC	188	ND	10,000	No
9007(E)-E5	5576.05	7/31/00	8/1-2/00	TPHC	172	9,496.72	10,000	No
9007(E)-N5	5576.06	7/31/00	8/1-2/00	TPHC	178	10,645.53	10,000	Yes
9007(E)-N6	5576.07	7/31/00	8/1-2/00	TPHC	180	5,055.53	10,000	No
9007(E)-S5	5576.08	7/31/00	8/1-2/00	TPHC	180	8,422.70	10,000	No
9007(E/NE)-B1	5610.01	8/8/00	8/10/00	TPHC	78	1,578.89	10,000	No
9007(E/NE)-N1	5610.02	8/8/00	8/10/00	TPHC	77	363.21	10,000	No
9007(E/NE)-N2	5610.03	8/8/00	8/10/00	TPHC	78	426.34	10,000	No
9007(E/NE)-W1	5610.04	8/8/00	8/10/00	TPHC	80	603.09	10,000	No
9007(E/NE)-S1	5610.05	8/8/00	8/10/00	TPHC	80	5,391.84	10,000	No

Note:

Samples collected on 2/6/98 were re-analyzed between 2/19/98 and 2/21/98 after a malfunction was discovered in the laboratory instrumentation. The sample results were unchanged after the re-analysis.

- * Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria
- ND Not detected
- TPHC Total petroleum hydrocarbons

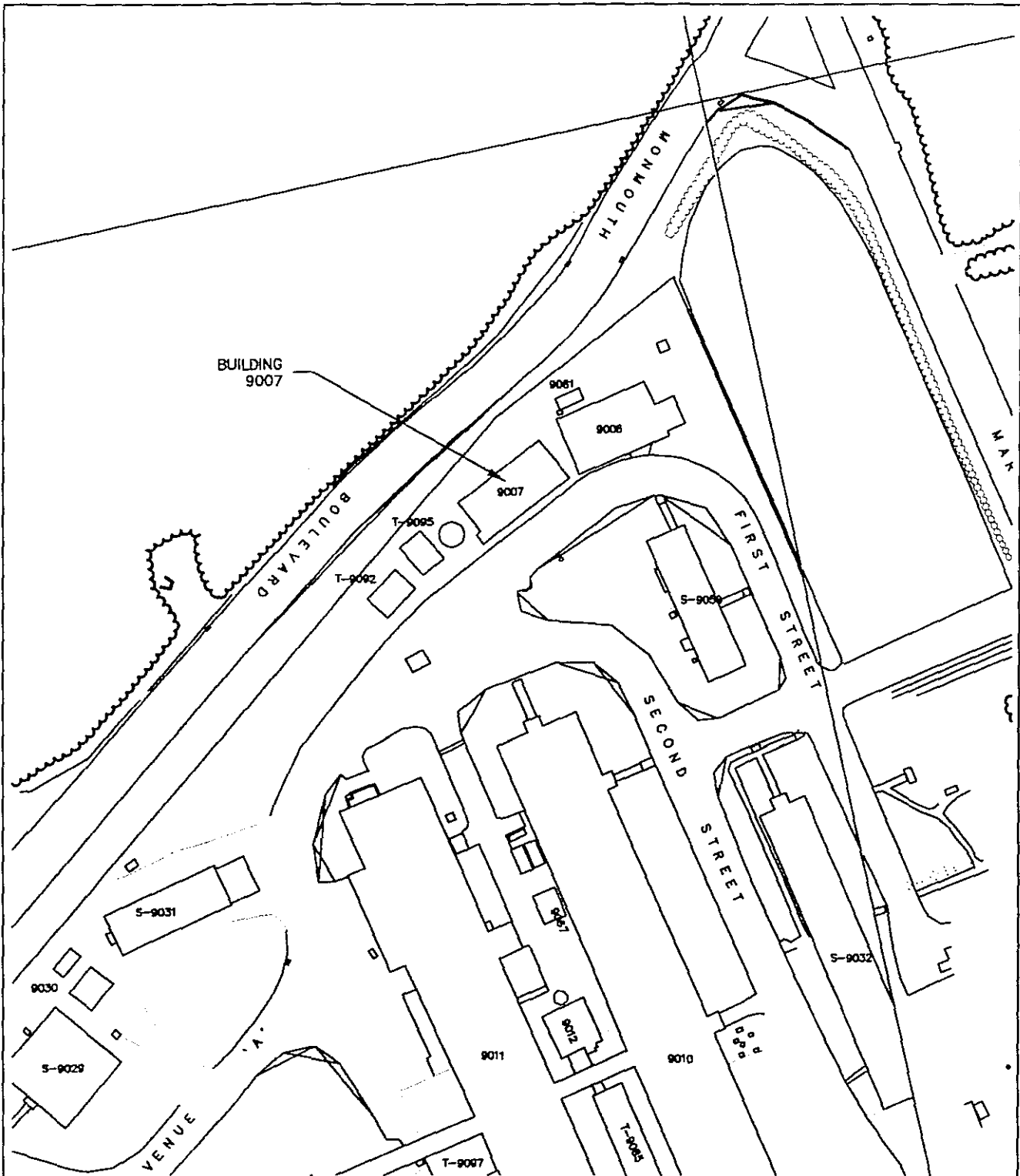
Table 2
Remedial Soil Sampling Results (TPHC)
Building 9007, Camp Evans Area
Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9007(E/NE)-E1	5610.06	8/8/00	8/10/00	TPHC	81	8,684.79	10,000	No
B-9007(W)-1	5840.01	11/8/00	11/9/00	TPHC	174	ND	10,000	No
B-9007(W)-2	5840.02	11/8/00	11/9/00	TPHC	174	ND	10,000	No
9007-EPS25	5852.01	11/13/00	11/14/00	TPHC	168	385.54	10,000	No
9007-B6	5852.02	11/13/00	11/14/00	TPHC	185	ND	10,000	No
9007-NW1	5852.03	11/13/00	11/14/00	TPHC	173	ND	10,000	No
9007-SW1	5852.04	11/13/00	11/14/00	TPHC	169	ND	10,000	No
9007-NE1	5852.05	11/13/00	11/14/00	TPHC	175	ND	10,000	No
9007-SE1	5852.06	11/13/00	11/14/00	TPHC	171	ND	10,000	No
9007-SE2	5852.07	11/13/00	11/14/00	TPHC	185	ND	10,000	No
9007-SW1	5852.08	11/13/00	11/14/00	TPHC	169	ND	10,000	No
9007-SW2	5852.10	11/13/00	11/14/00	TPHC	172	ND	10,000	No

Note:

Samples collected on 2/6/98 were re-analyzed between 2/19/98 and 2/21/98 after a malfunction was discovered in the laboratory instrumentation. The sample results were unchanged after the re-analysis.

* Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria
 ND Not detected
 TPHC Total petroleum hydrocarbons

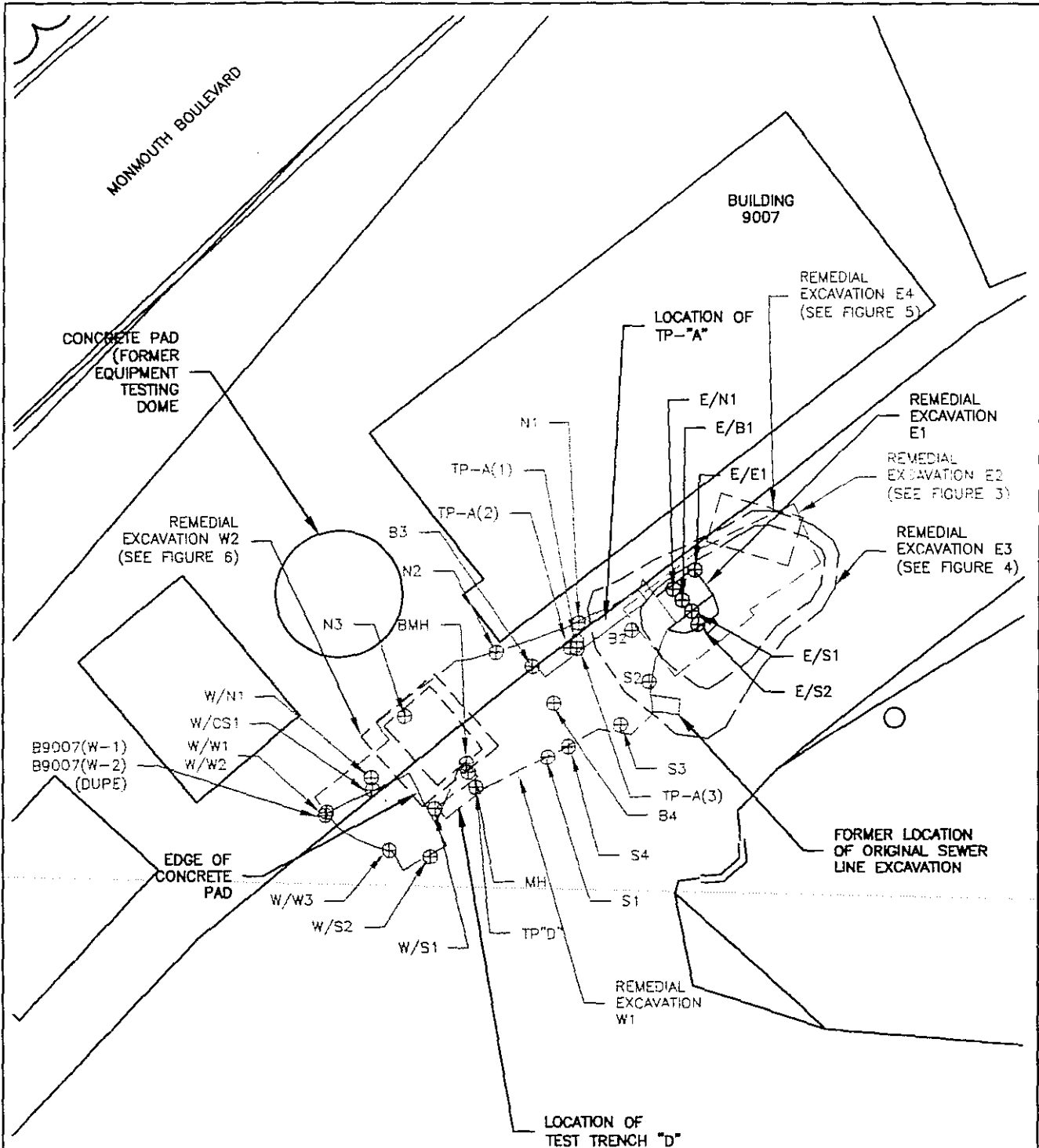


0 50 100
SCALE IN FEET


EVANS AREA
FORT MONMOUTH, NEW JERSEY

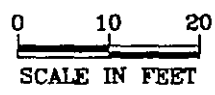
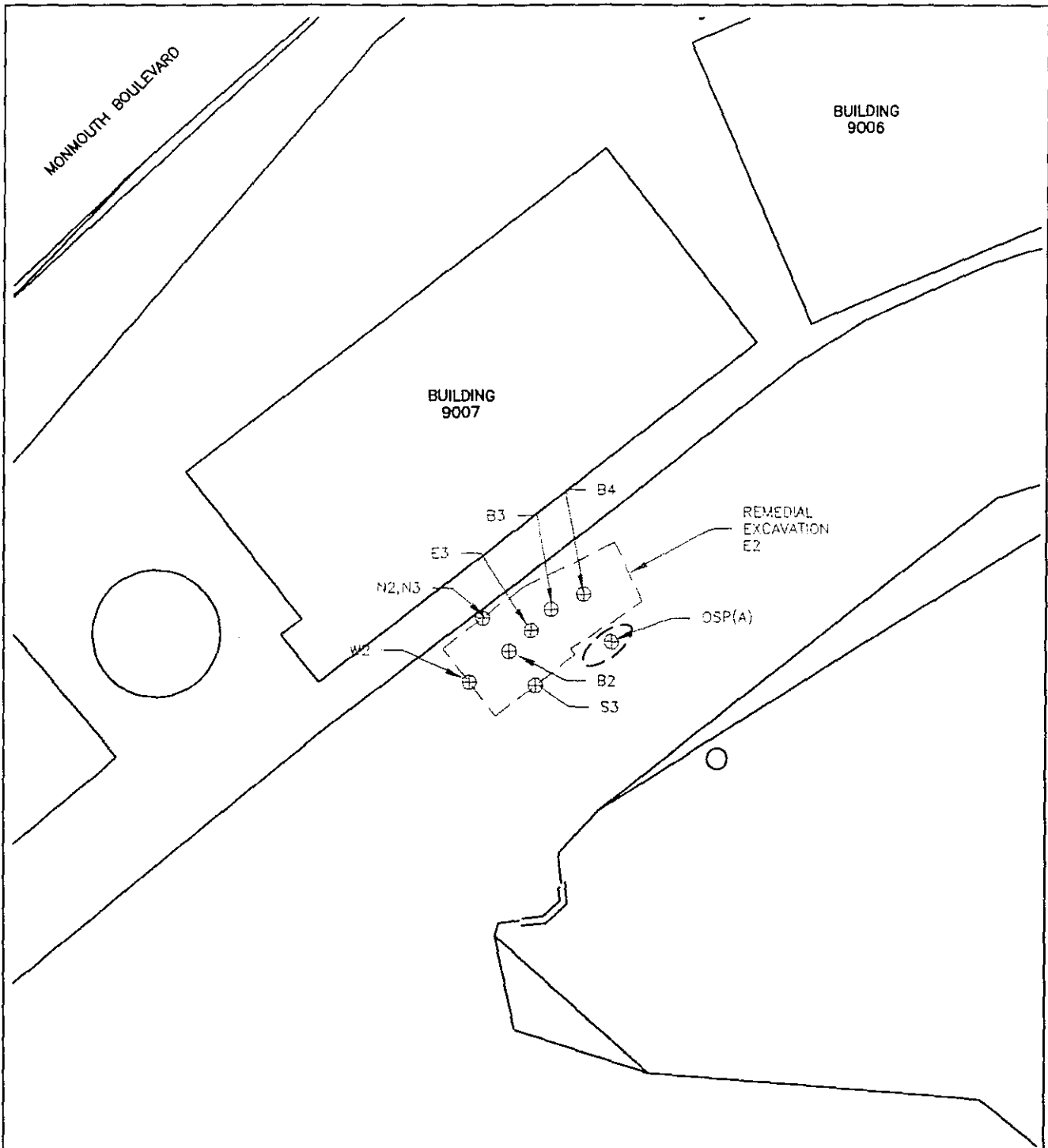
FIGURE 1
BUILDING 9007
SITE LOCATION MAP




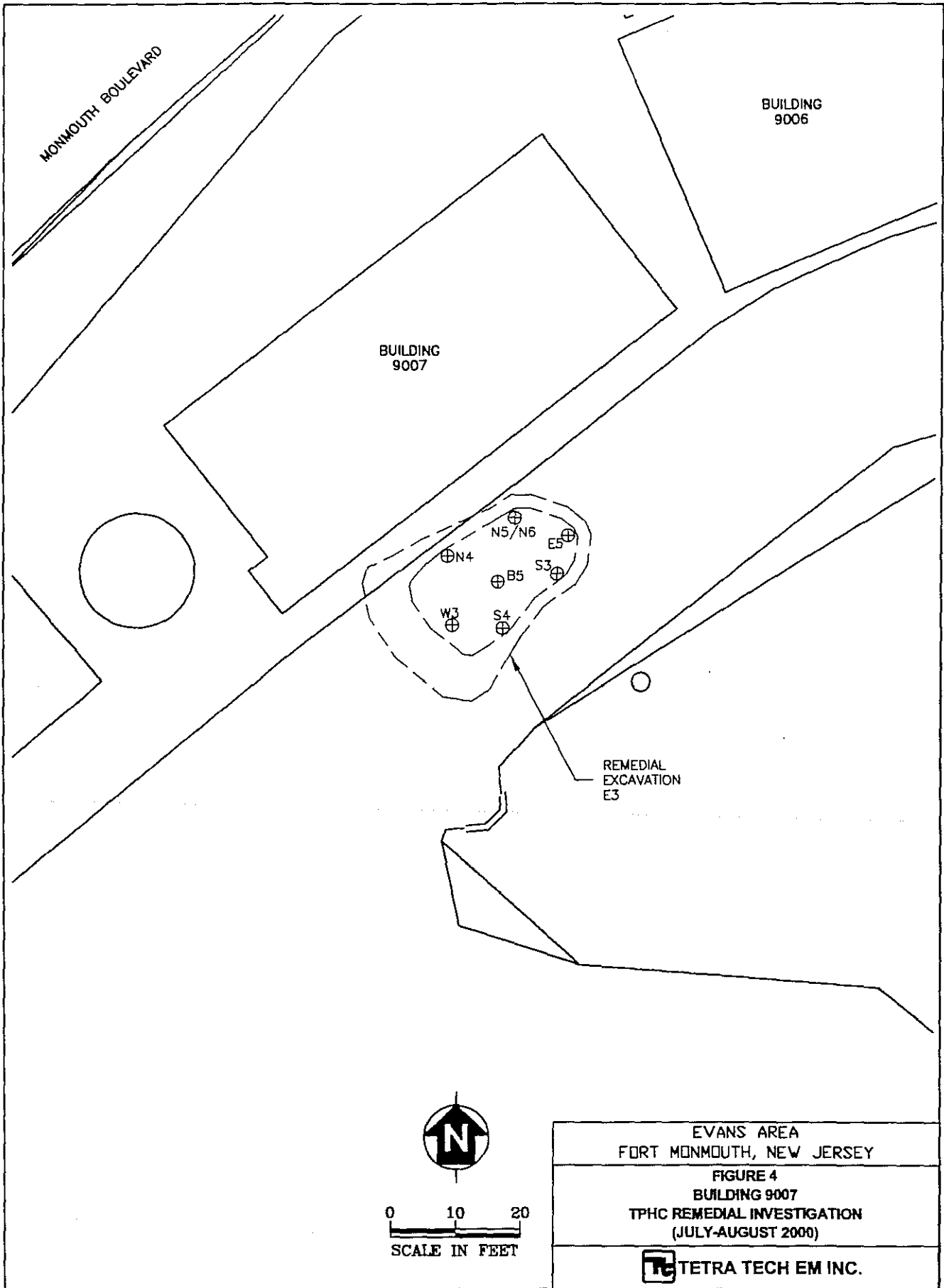


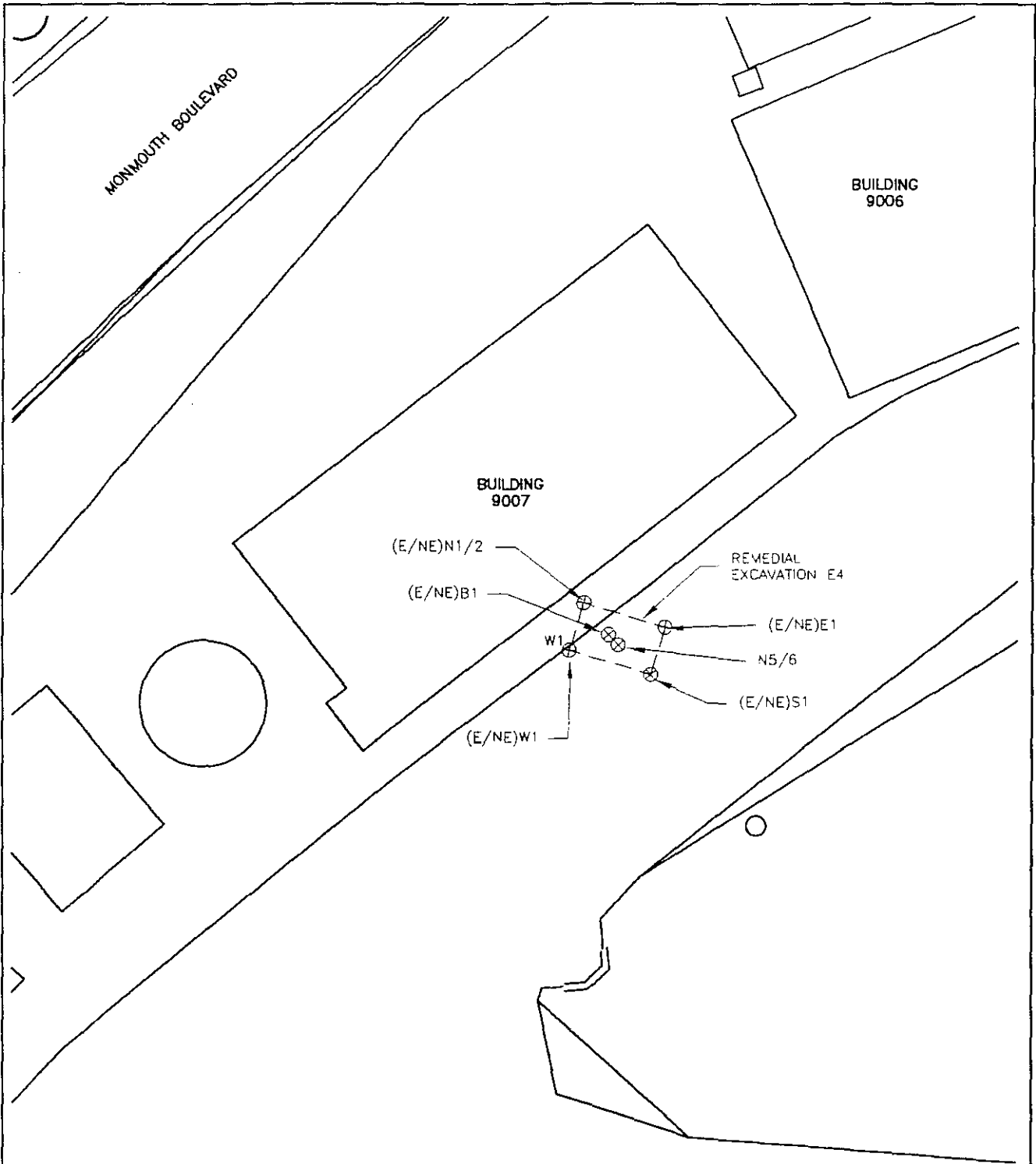
0 10 20
SCALE IN FEET

EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 2 BUILDING 9007 TPHC REMEDIAL INVESTIGATION (JANUARY-FEBRUARY 2000)
 TETRA TECH EM INC.



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 3 BUILDING 9007 TPHC REMEDIAL INVESTIGATION (JULY-AUGUST 2000)
 TETRA TECH EM INC.



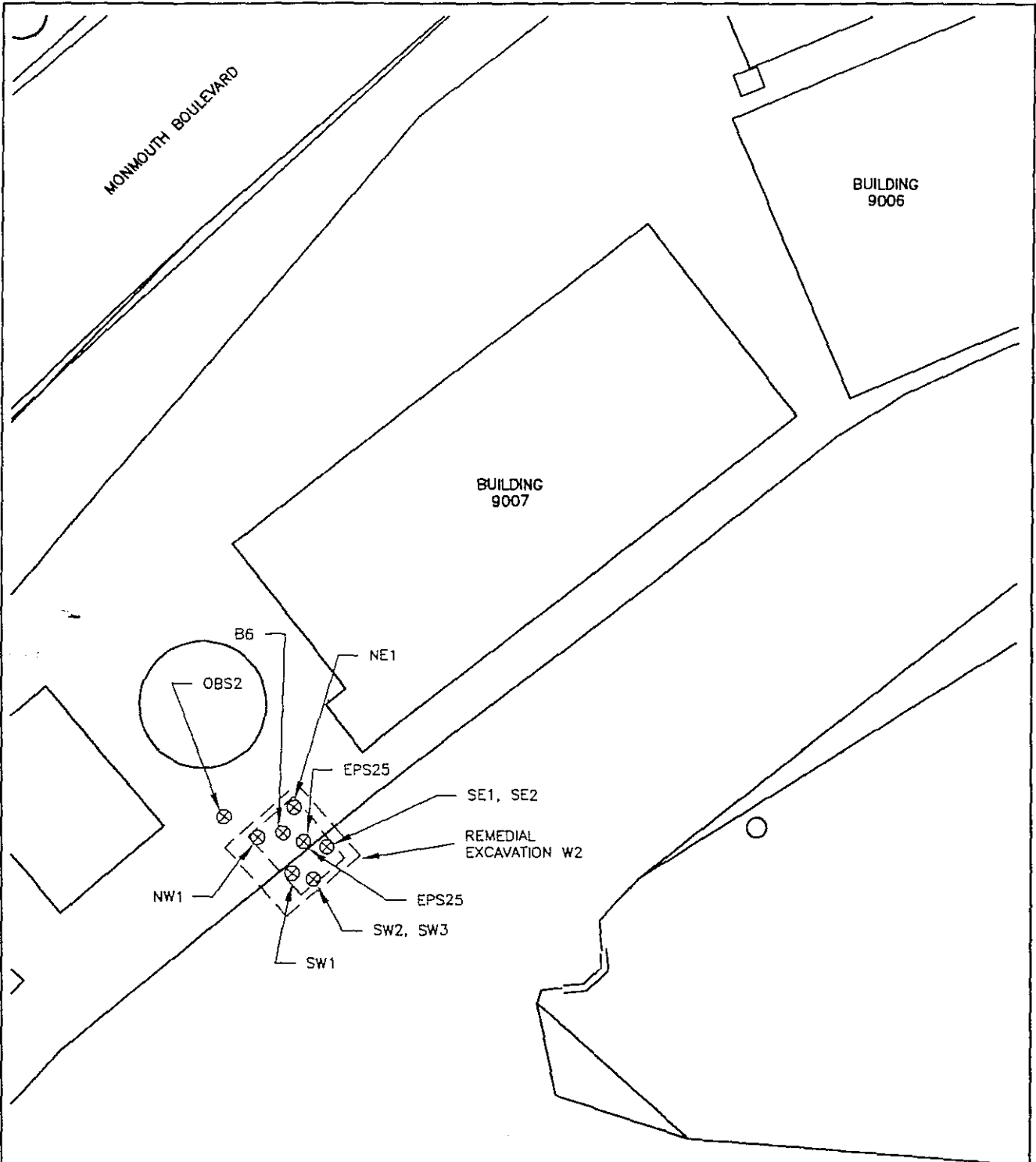


0 10 20
SCALE IN FEET

EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 5
BUILDING 9007
TPHC REMEDIAL INVESTIGATION
(JANUARY-FEBRUARY 2000)

 TETRA TECH EM INC.



EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 6
BUILDING 9007
TPHC REMEDIAL INVESTIGATION
(JANUARY-FEBRUARY 2000)

 TETRA TECH EM INC.

APPENDIX A

SIGNED SITE ASSESSMENT SUMMARY FORM

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: US Army, Fort Monmouth, Evans Area

Facility Street Address: Building 1207, DCSOPS-BID

Municipality: Wall Township County : Monmouth

Block: 240, 241 and 242 Lot(s): 240 (55.01, 55.02, 55.03 & 55.04), 241 (1), 242 (1.01 & 1.02)

Telephone Number : (732) 239-2427

B. Owner (RP)'s Name: US Army, CECOM

Street Address: DCSOPS-BID, Bldg. 1207 City : Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-5052

C. (Check as appropriate)

- Site Investigation

Report (SIR) \$500 Fee

- Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager : Mr. Ian Curtis
- UST Registration Number : (7 digits): ~~90029~~ N/A
- Incident Report Number (10 or 12 digits): _____
- Tank Closure Number C(N)9 (7 characters): Approved by Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E : Yes

Name: Kevin J. Phelan Signature: Kevin J. Phelan UST Cert. No.: 0018436

Firm: Tetra Tech EM, Inc. Firm's UST Cert. Number: US00457

Firm Address: 1 Bank Street, Suite 103 City: Rockaway

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

State: NJ

Zip: 07866

Telephone Number : (973) 9830507, Ext. 230

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

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

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

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

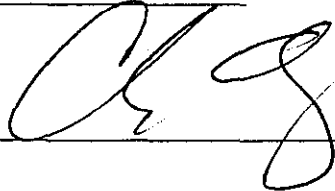
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true,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

Name (Print or Type): Mr. Charles Appleby

Title: BRAC Environmental Coordinator, Evans Area

NJDEP Subsurface Evaluator # 2056

Signature: _____



Company Name: US Army, CECOM, DCSOPS-BID, Fort Monmouth NJ, 07703

Date: November 30, 2000

APPENDIX B

PHOTOGRAPHS OF REMEDIAL EXCAVATION



PHOTO 1: View of backhoe beginning UST-9007 excavation (looking northeast).

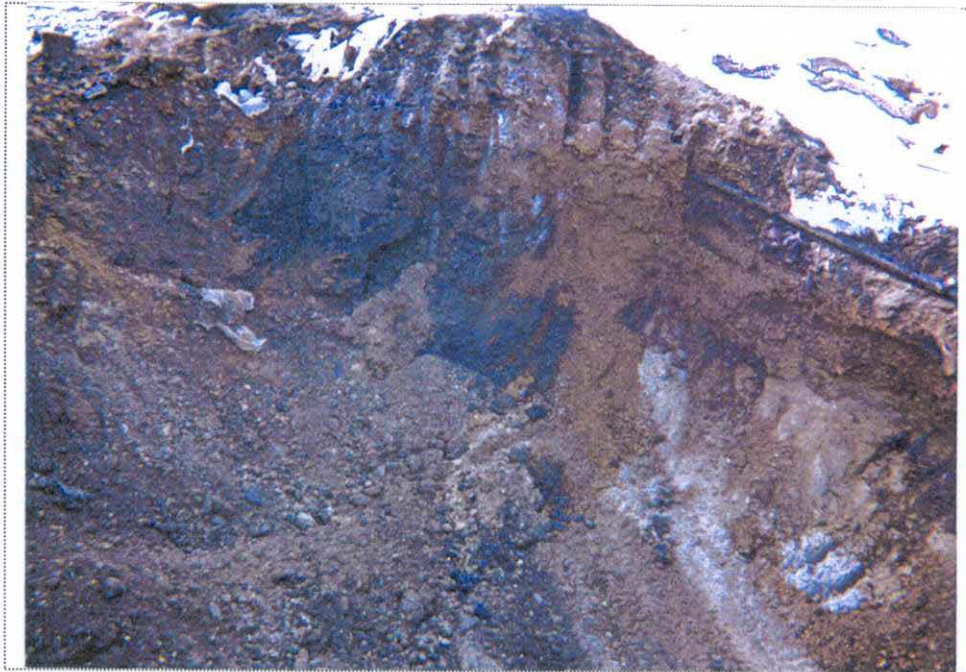


PHOTO 2: View of contamination in west sidewall of UST-9007 excavation (looking southwest).



PHOTO 3: View of heavily-stained pieces of former wooden dry well in UST-9007 excavation.



PHOTO 4: View of storm sewer manhole in western end of UST-9007 excavation (looking southwest).



PHOTO 5: View of trackhoe continuing to excavate east end of UST-9007 excavation (looking north).



PHOTO 6: View of eastern end of UST-9007 excavation (looking north).



PHOTO 1: View of TP-9043 (Excavation C) where copper tubing with traces of fuel oil/gasoline was found (looking north).



PHOTO 2: View of former AST location at Building 9004 prior to excavation of test trenches (looking south/southwest).



PHOTO 3: View of remedial excavation at Building 9004 to remove contamination caused by a former aboveground storage tank (AST) (looking east/southeast).



PHOTO 4: View of remedial excavation at Building 9090 to remove contamination caused by a former UST that had been removed previously (looking north).



PHOTO 5: View of exploratory test trench adjacent to a former building pad along Watson Avenue (looking south).



PHOTO 7: View of backhoe beginning to reexcavate storm sewer manhole to remediate PCB contamination in UST-9007 excavation (looking west).



PHOTO 8: View of excavation after removal of manhole (looking northwest).



PHOTO 9: View of final site restoration of UST-9007 excavation (looking northeast).

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA PACKAGE

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

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

Lab. ID # : 5128.02
 Date Rec'd: 1/28/00
 Extraction Date: 1/31/00
 Analysis Date: 2/1/00

Analysis: SW-846 Method 8082
 Matrix: Soil
 Analyst: T. Frankovich

Location : Bldg. 9007
 Field ID: 9007-S1(4.5'-5')

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	96.50	0.0116	ND	0.49	10.04
Arochlor 1221	1	96.50	0.0213	ND	0.49	10.04
Arochlor 1232	1	96.50	0.0144	ND	0.49	10.04
Arochlor 1242	1	96.50	0.0165	ND	0.49	10.04
Arochlor 1248	1	96.50	0.0066	ND	0.49	10.04
Arochlor 1254	1	96.50	0.0041	ND	0.49	10.04
Arochlor 1260	1	96.50	0.0037	ND	0.49	10.04

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

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

Lab ID #: 5128.02
 Sample Received: 01/28/00
 Sample Matrix: Solid

Site: Evans Bldg. 9007

Field ID: 9007-S1(4.5'-5')

Method of Digestion: EPA SW-846 Method 3051A
 Method of Analysis: EPA SW-846 Method 6010B, 7471A

TAL-METALS RESULTS SUMMARY (mg/Kg)

Element	Date of Analysis	Result	Soil Cleanup Criteria *	MDL
Aluminum	01/31/00	3840	NLE	1.884
Antimony	01/31/00	ND	14	0.377
Arsenic	01/31/00	0.377	20	0.377
Barium	01/31/00	9.95	700	0.094
Beryllium	01/31/00	0.094	2	0.094
Cadmium	01/31/00	ND	39	0.094
Calcium	01/31/00	54.1	NLE	3.768
Chromium	01/31/00	5.07	NLE	0.094
Cobalt	01/31/00	1.19	NLE	0.094
Copper	01/31/00	19.2	600	0.565
Iron	01/31/00	3090	NLE	1.884
Lead	01/31/00	2.07	400	0.377
Magnesium	01/31/00	202	NLE	3.768
Manganese	01/31/00	16.0	NLE	0.094
Mercury	01/31/00	ND	14	0.022
Nickel	01/31/00	6.63	250	0.094
Potassium	01/31/00	279	NLE	3.768
Selenium	01/31/00	ND	63	0.565
Silver	01/31/00	ND	110	0.565
Sodium	01/31/00	154	NLE	3.768
Thallium	01/31/00	ND	2	0.565
Vanadium	01/31/00	24.9	370	0.188
Zinc	01/31/00	18.1	1500	0.188

ND = Not Detected, MDL = Method Detection Limit, NLE = No Limit Established
 * Residential Direct Contact Soil Cleanup as per N.J.A.C. 7:26:D 5/12/99

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

Data File **VB005730.D**
 Operator **Skelton**
 Date Acquired **4 Feb 2000 4:03 pm**

Sample Name **5131.01**
 Field ID **Trip Blank**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	Dichlorodifluoromethane			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-34-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
156-59-4	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform	16.45	90459	2.57 ug/L	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6.2-Sept-9

Qualifiers

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

Trip Blank

Lab Name: FMETL Project: 971251
NJDEP#: 13461 Case No.: 5131 Location: 9007 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 5131.01
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB005730.D
Level: (low/med) LOW Date Received: 1/31/00
% Moisture: not dec. _____ Date Analyzed: 2/4/00
GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

Data File VB005731.D
 Operator Skelton
 Date Acquired 4 Feb 2000 4:43 pm

Sample Name 5131.02
 Field ID 9007-EW
 Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	Dichlorodifluoromethane			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-34-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
156-59-4	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

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

Qualifiers

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

9007-EW

Lab Name: FMETL Project: 971251
NJDEP#: 13461 Case No.: 5131 Location: 9007 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 5131.02
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB005731.D
Level: (low/med) LOW Date Received: 1/31/00
% Moisture: not dec. _____ Date Analyzed: 2/4/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

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

Lab ID #: 5131.02
 Sample Received: 01/31/00
 Sample Matrix: Aq

Site: Evans Bldg. 9007

Sample Location: 9007-EW

Method of Extraction: E.P.A SW-846, Method 3015A
 Method of Analysis: Std. Methods 18th, Method 3120B, 3112B

TAL-METALS RESULTS SUMMARY (ppb)

Element	Date of Analysis	Result (ug/L)	Regulatory Level (ug/L)*	MDL (ug/L)
Aluminum	01/31/00	15700	200	10.0
Antimony	01/31/00	9.00	20	2.0
Arsenic	01/31/00	ND	8	2.0
Barium	01/31/00	40.7	2000	0.5
Beryllium	01/31/00	ND	20	0.5
Cadmium	01/31/00	4.9	4	0.5
Calcium	01/31/00	3850	NLE	20.0
Chromium	01/31/00	22.8	100	0.5
Cobalt	01/31/00	2.5	NLE	0.5
Copper	01/31/00	300	1000	3.0
Iron	01/31/00	7630	300	10.0
Lead	01/31/00	50.0	10	2.0
Magnesium	01/31/00	1320	NLE	20.0
Manganese	01/31/00	51.6	50	0.5
Mercury	01/31/00	0.27	2	0.1
Nickel	01/31/00	11.9	100	0.5
Potassium	01/31/00	2210	NLE	20.0
Selenium	01/31/00	ND	50	3.0
Silver	01/31/00	ND	20	3.0
Sodium	01/31/00	31800	50000	20.0
Thallium	01/31/00	ND	10	3.0
Vanadium	01/31/00	19.0	NLE	1.0
Zinc	01/31/00	52.0	5000	1.0

ND = Not Detected, MDL = Method Detection Limit, NLE = No Limit Established
 * Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

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

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


Project # : 5142
Location : Bldg. 9007
UST Reg. # :

Analysis : OQA-QAM-025
Matrix : Soil
Inst. ID. : GC TPHC INST. #1
Column Type : RTX-5, 0.32mm ID, 30M
Injection Volume : 1uL

Date Received : 03-Feb-00
Date Extracted : 04-Feb-00
Extraction Method : Shake
Analysis Complete : 04-Feb-00
Analyst : B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5142.01	9007-B3	1.00	15.33	79.07	194	ND
5142.02	9007-B4	1.00	15.22	81.27	190	ND
5142.03	9007-N2	1.00	15.12	83.78	186	ND
5142.04	9007-S3	1.00	15.14	83.11	187	ND
5142.05	9007-S4	1.00	15.35	91.42	167	378.91
5142.06	9007-N3	1.00	15.32	79.92	192	463.35
METHOD BLANK	TBLK322	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP#: 13461
 Project: 971251 Case No.: 5145 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5145.06s
 Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB005767.D
 Level: (low/med) MED Date Received: 2/4/00
 % Moisture: not dec. 0 Date Analyzed: 2/8/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein		1800	U
107131	Acrylonitrile		1800	U
75650	tert-Butyl alcohol		3200	U
1634044	Methyl-tert-Butyl ether		750	U
108203	Di-isopropyl ether		500	U
	Dichlorodifluoromethane		1000	U
74-87-3	Chloromethane		250	U
75-01-4	Vinyl Chloride		750	U
74-83-9	Bromomethane		500	U
75-00-3	Chloroethane		750	U
75-69-4	Trichlorofluoromethane		500	U
75-35-4	1,1-Dichloroethene		250	U
67-64-1	Acetone		1700	
75-15-0	Carbon Disulfide		250	U
75-09-2	Methylene Chloride		500	U
156-60-5	trans-1,2-Dichloroethene		500	U
75-35-3	1,1-Dichloroethane		250	U
108-05-4	Vinyl Acetate		750	U
78-93-3	2-Butanone		1000	
	cis-1,2-Dichloroethene		250	U
67-66-3	Chloroform		250	U
75-55-6	1,1,1-Trichloroethane		250	U
56-23-5	Carbon Tetrachloride		500	U
71-43-2	Benzene		250	U
107-06-2	1,2-Dichloroethane		500	U
79-01-6	Trichloroethene		250	U
78-87-5	1,2-Dichloropropane		250	U
75-27-4	Bromodichloromethane		250	U
110-75-8	2-Chloroethyl vinyl ether		500	U
10061-01-5	cis-1,3-Dichloropropene		250	U
108-10-1	4-Methyl-2-Pentanone		500	U
108-88-3	Toluene		250	U
10061-02-6	trans-1,3-Dichloropropene		500	U
79-00-5	1,1,2-Trichloroethane		500	U
127-18-4	Tetrachloroethene		250	U
591-78-6	2-Hexanone		500	U
126-48-1	Dibromochloromethane		500	U
108-90-7	Chlorobenzene		250	U
100-41-4	Ethylbenzene		500	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

Trip Blank

Lab Name: FMETL NJDEP#: 13461

Project: 971251 Case No.: 5145 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5145.06s

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB005767.D

Level: (low/med) MED Date Received: 2/4/00

% Moisture: not dec. 0 Date Analyzed: 2/8/00

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

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

CONCENTRATION UNITS:

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

Trip Blank

Lab Name: FMETL NJDEP#: 13461
Project: 971251 Case No.: 5145 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5145.06s
Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB005767.D
Level: (low/med) MED Date Received: 2/4/00
% Moisture: not dec. 0 Date Analyzed: 2/8/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

FIELD ID:

9007-MH

Lab Name: FMETL NJDEP#: 13461

Project: 971251 Case No.: 5145 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5145.01s

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB005768.D

Level: (low/med) MED Date Received: 2/4/00

% Moisture: not dec. 0 Date Analyzed: 2/8/00

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

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

CONCENTRATION UNITS:

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

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3200	U
1634044	Methyl-tert-Butyl ether	750	U
108203	Di-isopropyl ether	500	U
	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	750	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	750	U
75-69-4	Trichlorofluoromethane	500	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	1400	
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	500	U
156-60-5	trans-1,2-Dichloroethene	500	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	750	U
78-93-3	2-Butanone	780	
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	500	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	500	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	500	U
126-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	500	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

9007-MH

Lab Name: FMETL NJDEP#: 13461

Project: 971251 Case No.: 5145 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5145.01s

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB005768.D

Level: (low/med) MED Date Received: 2/4/00

% Moisture: not dec. 0 Date Analyzed: 2/8/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
1330-20-7	m+p-Xylenes		750	U
1330-20-7	o-Xylene		500	U
100-42-5	Styrene		500	U
75-25-2	Bromoform		500	U
79-34-5	1,1,2,2-Tetrachloroethane		500	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-MH

Lab Name: FMETL NJDEP#: 13461
Project: 971251 Case No.: 5145 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5145.01s
Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB005768.D
Level: (low/med) MED Date Received: 2/4/00
% Moisture: not dec. 0 Date Analyzed: 2/8/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

9007-M.H.

Lab Name: FMETL Project: 97-1251
 Lab Code: 13461 Case No.: 5145 Location: Bl.9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5145.02 (1:10)
 Sample wt/vol: 10.04 (g/ml) G Lab File ID: BN04204.D
 Level: (low/med) LOW Date Received: 2/4/00
 % Moisture: 35.78 decanted:(Y/N) N Date Extracted: 2/15/00
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/18/00
 Injection Volume: 1.0 (uL) Dilution Factor: 10.0
 GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
110-86-1	Pyridine	16000	U	
62-75-9	N-nitroso-dimethylamine	16000	U	
62-53-3	Aniline	16000	U	
108-95-2	Phenol	16000	U	
111-44-4	bis(2-Chloroethyl)ether	16000	U	
95-57-8	2-Chlorophenol	16000	U	
541-73-1	1,3-Dichlorobenzene	16000	U	
106-46-7	1,4-Dichlorobenzene	16000	U	
100-51-6	Benzyl alcohol	16000	U	
95-50-1	1,2-Dichlorobenzene	16000	U	
95-48-7	2-Methylphenol	16000	U	
108-60-1	bis(2-chloroisopropyl)ether	16000	U	
106-44-5	4-Methylphenol	16000	U	
621-64-7	n-Nitroso-di-n-propylamine	16000	U	
67-72-1	Hexachloroethane	16000	U	
98-95-3	Nitrobenzene	16000	U	
78-59-1	Isophorone	16000	U	
88-75-5	2-Nitrophenol	16000	U	
105-67-9	2,4-Dimethylphenol	16000	U	
111-91-1	bis(2-Chloroethoxy)methane	16000	U	
120-83-2	2,4-Dichlorophenol	16000	U	
65-85-0	Benzoic Acid	16000	U	
120-82-1	1,2,4-Trichlorobenzene	16000	U	
91-20-3	Naphthalene	16000	U	
106-47-8	4-Chloroaniline	16000	U	
87-68-3	Hexachlorobutadiene	16000	U	
59-50-7	4-Chloro-3-methylphenol	16000	U	
91-57-6	2-Methylnaphthalene	16000	U	
77-47-4	Hexachlorocyclopentadiene	16000	U	
88-06-2	2,4,6-Trichlorophenol	16000	U	
95-95-4	2,4,5-Trichlorophenol	16000	U	
91-58-7	2-Chloronaphthalene	16000	U	
88-74-4	2-Nitroaniline	16000	U	
131-11-3	Dimethylphthalate	16000	U	
208-96-8	Acenaphthylene	16000	U	
606-20-2	2,6-Dinitrotoluene	16000	U	
99-09-2	3-Nitroaniline	16000	U	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

9007-M.H.

Lab Name: FMETL Project: 97-1251

Lab Code: 13461 Case No.: 5145 Location: Bl.9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5145.02 (1:10)

Sample wt/vol: 10.04 (g/ml) G Lab File ID: BN04204.D

Level: (low/med) LOW Date Received: 2/4/00

% Moisture: 35.78 decanted:(Y/N) N Date Extracted: 2/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/18/00

Injection Volume: 1.0 (uL) Dilution Factor: 10.0

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	Acenaphthene	16000		U
51-28-5	2,4-Dinitrophenol	16000		U
132-64-9	Dibenzofuran	16000		U
100-02-7	4-Nitrophenol	16000		U
121-14-2	2,4-Dinitrotoluene	16000		U
84-66-2	Diethylphthalate	16000		U
86-73-7	Fluorene	16000		U
7005-72-3	4-Chlorophenyl-phenylether	16000		U
100-01-6	4-Nitroaniline	16000		U
534-52-1	4,6-Dinitro-2-methylphenol	16000		U
86-30-6	n-Nitrosodiphenylamine	16000		U
103-33-3	Azobenzene	16000		U
101-55-3	4-Bromophenyl-phenylether	16000		U
118-74-1	Hexachlorobenzene	16000		U
87-86-5	Pentachlorophenol	16000		U
85-01-8	Phenanthrene	16000		U
120-12-7	Anthracene	16000		U
84-74-2	Di-n-butylphthalate	3300		JBD
206-44-0	Fluoranthene	16000		U
92-87-5	Benzidine	16000		U
129-00-0	Pyrene	1800		JD
85-68-7	Butylbenzylphthalate	16000		U
56-55-3	Benzo[a]anthracene	16000		U
91-94-1	3,3'-Dichlorobenzidine	16000		U
218-01-9	Chrysene	16000		U
117-81-7	bis(2-Ethylhexyl)phthalate	16000		U
117-84-0	Di-n-octylphthalate	16000		U
205-99-2	Benzo[b]fluoranthene	16000		U
207-08-9	Benzo[k]fluoranthene	16000		U
50-32-8	Benzo[a]pyrene	16000		U
193-39-5	Indeno[1,2,3-cd]pyrene	16000		U
53-70-3	Dibenz[a,h]anthracene	16000		U
191-24-2	Benzo[g,h,i]perylene	16000		U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9007-M.H.

Lab Name: FMETL Project: 97-1251
Lab Code: 13461 Case No.: 5145 Location: Bl.9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5145.02 (1:10)
Sample wt/vol: 10.04 (g/ml) G Lab File ID: BN04204.D
Level: (low/med) LOW Date Received: 2/4/00
% Moisture: 35.78 decanted: (Y/N) N Date Extracted: 2/15/00
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/18/00
Injection Volume: 1.0 (uL) Dilution Factor: 10.0
GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	23.41	7200	JD

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

Client :	U.S. Army	Lab. ID # :	5145.02
	DPW. SELFM-PW-EV	Date Rec'd:	2/4/00
	Bldg. 173	Extraction Date:	2/16/00
	Ft. Monmouth, NJ 07703	Analysis Date:	2/23/00

Analysis:	SW-846 Method 8081/8082	Location :	97-1251
Matrix:	Soil		Bldg. 9007
Analyst:	T. Frankovich	Field ID:	9007-M.H.(6.5-7'

	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)
alpha-BHC	1	64.22	0.0005	ND	NLE
beta-BHC	1	64.22	0.0005	ND	NLE
gamma-BHC	1	64.22	0.0006	ND	0.52
delta-BHC	1	64.22	0.0006	ND	NLE
Heptachlor	1	64.22	0.0005	ND	0.15
Aldrin	1	64.22	0.0006	ND	0.04
Heptachlor Epoxide	1	64.22	0.0009	ND	NLE
Endosulfan I	1	64.22	0.0008	ND	NLE
4,4'-DDE	1	64.22	0.0006	ND	2
Dieldrin	1	64.22	0.0008	ND	0.042
Endrin	1	64.22	0.0008	ND	17
Endosulfan II	1	64.22	0.0006	ND	NLE
4,4'-DDD	1	64.22	0.0009	ND	3
Endrin Aldehyde	1	64.22	0.0008	ND	NLE
4,4'-DDT	1	64.22	0.0017	ND	2
Endosulfan-Sulfate	1	64.22	0.0006	ND	NLE
gamma-Chlordane	1	64.22	0.0008	ND	NLE
alpha-Chlordane	1	64.22	0.0008	ND	NLE
Toxaphene	1	64.22	0.0005	ND	0.1
Arochlor 1016	1	64.22	0.0174	ND	0.49
Arochlor 1221	1	64.22	0.0320	ND	0.49
Arochlor 1232	1	64.22	0.0218	ND	0.49
Arochlor 1242	1	64.22	0.0249	ND	0.49
Arochlor 1248	1	64.22	0.0099	ND	0.49
Arochlor 1254	1	64.22	0.0062	2.065	0.49
Arochlor 1260	1	64.22	0.0056	ND	0.49

ND = Not Detected
 MDL = Method Detection Limit
 NLE = No Limit Established

Column-Primary: RTX-CLPesticide 30m/.32mmID/.25um
 Column-Confirmation: RTX-CLPesticide2 30m/.32mmID/.25um

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

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

Lab ID #: 5145.02
 Sample Received: 02/04/00
 Sample Matrix: Solid

Site: Evans Bldg. 9007

Field ID: 9007-M.H.(6.5-7')

Method of Digestion: EPA SW-846 Method 3051A
 Method of Analysis: EPA SW-846 Method 6010B, 7471B

TAL-METALS RESULTS SUMMARY (mg/Kg)

Element	Date of Analysis	Result	Soil Cleanup Criteria *	MDL
Aluminum	02/09/00	7120	NLE	2.359
Antimony	02/09/00	4.53	14	0.472
Arsenic	02/09/00	6.27	20	0.472
Barium	02/09/00	44.6	700	0.118
Beryllium	02/09/00	0.217	2	0.118
Cadmium	02/09/00	13.6	39	0.118
Calcium	02/09/00	4770	NLE	4.719
Chromium	02/09/00	41.8	NLE	0.118
Cobalt	02/09/00	3.38	NLE	0.118
Copper	02/09/00	68.9	600	0.708
Iron	02/09/00	10800	NLE	2.359
Lead	02/09/00	168	400	0.472
Magnesium	02/09/00	1400	NLE	4.719
Manganese	02/09/00	140	NLE	0.118
Mercury	02/09/00	0.322	14	0.034
Nickel	02/09/00	16.7	250	0.118
Potassium	02/09/00	693	NLE	4.719
Selenium	02/09/00	1.27	63	0.708
Silver	02/09/00	ND	110	0.708
Sodium	02/09/00	304	NLE	4.719
Thallium	02/09/00	ND	2	0.708
Vanadium	02/09/00	34.0	370	0.236
Zinc	02/09/00	171	1500	0.236

ND = Not Detected, MDL = Method Detection Limit, NLE = No Limit Established
 * Residential Direct Contact Soil Cleanup as per N.J.A.C. 7:26:D 5/12/99

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

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

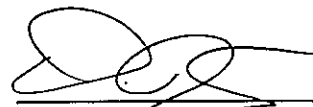
Project # : 5154
Location : Bldg.9007
UST Reg. # :

Analysis : OQA-QAM-025
Matrix : Soil
Inst. ID. : GC TPHC INST. #1
Column Type : RTX-5, 0.32mm ID, 30M
Injection Volume : 1uL

Date Received : 07-Feb-00
Date Extracted : 08-Feb-00
Extraction Method : Shake
Analysis Complete : 09-Feb-00
Analyst : D. Costagliola

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5154.01	9007-W/W1	1.00	15.07	89.85	174	961.57
5154.02	9007-W/W2	1.00	15.20	87.59	177	1352.06
5154.03	9007-W/W3	1.00	15.79	86.42	172	368.38
5154.04	9007-W/S2	1.00	15.04	84.59	185	275.91
5154.05	9007-CBF1	1.00	15.62	93.18	161	210.75
5154.06	9007-CBF2	1.00	15.04	90.11	173	396.10
5154.07	9007-E/B1	1.00	15.12	91.94	169	7032.19
5154.08	9007-E/N1	5.00	15.58	92.65	163	9740.35
5154.09	9007-E/S1	1.00	15.11	90.26	172	793.13
5154.10	9007-E/E1	1.00	15.24	87.02	177	1590.59
5154.11	9007-E/E2	1.00	15.08	87.15	179	2190.87
5154.12	9007-E/S2	1.00	15.43	89.85	170	231.71
METHOD BLANK	TBLK324	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

Trip Blank

Lab Name: FMETL NJDEP#: 13461
 Project: 971251 Case No.: 5158 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5158.02
 Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB005794.D
 Level: (low/med) MED Date Received: 2/9/00
 % Moisture: not dec. 0 Date Analyzed: 2/9/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3200	U
1634044	Methyl-tert-Butyl ether	750	U
108203	Di-isopropyl ether	500	U
	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	750	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	750	U
75-69-4	Trichlorofluoromethane	500	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	1800	
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	500	U
156-60-5	trans-1,2-Dichloroethene	500	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	750	U
78-93-3	2-Butanone	900	
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	500	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	500	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	500	U
126-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	500	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP#: 13461

Project: 971251 Case No.: 5158 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5158.02

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB005794.D

Level: (low/med) MED Date Received: 2/9/00

% Moisture: not dec. 0 Date Analyzed: 2/9/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
1330-20-7	m+p-Xylenes		750	U
1330-20-7	o-Xylene		500	U
100-42-5	Styrene		500	U
75-25-2	Bromoform		500	U
79-34-5	1,1,2,2-Tetrachloroethane		500	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

Trip Blank

Lab Name: FMETL NJDEP#: 13461
Project: 971251 Case No.: 5158 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5158.02
Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB005794.D
Level: (low/med) MED Date Received: 2/9/00
% Moisture: not dec. 0 Date Analyzed: 2/9/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

FIELD ID:

9007-W/CS1

Lab Name: FMETL NJDEP#: 13461
 Project: 971251 Case No.: 5158 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5158.01
 Sample wt/vol: 11.0 (g/ml) G Lab File ID: VB005795.D
 Level: (low/med) MED Date Received: 2/9/00
 % Moisture: not dec. 18.06 Date Analyzed: 2/9/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1900	U
107131	Acrylonitrile	1900	U
75650	tert-Butyl alcohol	3600	U
1634044	Methyl-tert-Butyl ether	840	U
108203	Di-isopropyl ether	560	U
	Dichlorodifluoromethane	1100	U
74-87-3	Chloromethane	280	U
75-01-4	Vinyl Chloride	840	U
74-83-9	Bromomethane	560	U
75-00-3	Chloroethane	840	U
75-69-4	Trichlorofluoromethane	560	U
75-35-4	1,1-Dichloroethene	280	U
67-64-1	Acetone	1900	
75-15-0	Carbon Disulfide	280	U
75-09-2	Methylene Chloride	560	U
156-60-5	trans-1,2-Dichloroethene	560	U
75-35-3	1,1-Dichloroethane	280	U
108-05-4	Vinyl Acetate	840	U
78-93-3	2-Butanone	1100	
	cis-1,2-Dichloroethene	280	U
67-66-3	Chloroform	280	U
75-55-6	1,1,1-Trichloroethane	280	U
56-23-5	Carbon Tetrachloride	560	U
71-43-2	Benzene	280	U
107-06-2	1,2-Dichloroethane	560	U
79-01-6	Trichloroethene	280	U
78-87-5	1,2-Dichloropropane	280	U
75-27-4	Bromodichloromethane	280	U
110-75-8	2-Chloroethyl vinyl ether	560	U
10061-01-5	cis-1,3-Dichloropropene	280	U
108-10-1	4-Methyl-2-Pentanone	560	U
108-88-3	Toluene	280	U
10061-02-6	trans-1,3-Dichloropropene	560	U
79-00-5	1,1,2-Trichloroethane	560	U
127-18-4	Tetrachloroethene	280	U
591-78-6	2-Hexanone	560	U
126-48-1	Dibromochloromethane	560	U
108-90-7	Chlorobenzene	280	U
100-41-4	Ethylbenzene	560	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

9007-W/CS1

Lab Name: FMETL NJDEP#: 13461
 Project: 971251 Case No.: 5158 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5158.01
 Sample wt/vol: 11.0 (g/ml) G Lab File ID: VB005795.D
 Level: (low/med) MED Date Received: 2/9/00
 % Moisture: not dec. 18.06 Date Analyzed: 2/9/00
 GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes		840	U
1330-20-7	o-Xylene		560	U
100-42-5	Styrene		560	U
75-25-2	Bromoform		560	U
79-34-5	1,1,2,2-Tetrachloroethane		560	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-W/CS1

Lab Name: FMETL NJDEP#: 13461
Project: 971251 Case No.: 5158 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5158.01
Sample wt/vol: 11.0 (g/ml) G Lab File ID: VB005795.D
Level: (low/med) MED Date Received: 2/9/00
% Moisture: not dec. 18.06 Date Analyzed: 2/9/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

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

Project # : 5158
Location : Bldg.9007
UST Reg. # :

Analysis : OQA-QAM-025
Matrix : Soil
Inst. ID. : GC TPHC INST. #1
Column Type : RTX-5, 0.32mm ID, 30M
Injection Volume : 1uL

Date Received : 09-Feb-00
Date Extracted : 10-Feb-00
Extraction Method : Shake
Analysis Complete : 11-Feb-00
Analyst : D. Costagliola

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5158.01	9007-W/CS1	1.00	15.02	81.94	191	1332.04
5158.03	9007-(M)SP1	1.00	15.01	89.62	175	1657.61
METHOD BLANK	TBLK326	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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

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

Project # : 5610
Location : Bldg 9007
UST Reg. # :

Analysis : OQA-QAM-025
Matrix : Soil
Inst. ID. : GC TPHC INST. #1
Column Type : RTX-5, 0.32mm ID, 30M
Injection Volume : 1uL

Date Received : 08-Aug-00
Date Extracted : 10-Aug-00
Extraction Method : Shake
Analysis Complete : 10-Aug-00
Analyst : Costagliola

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5610.01	9007(E/NE)-B1	1.00	15.96	88.82	78	1578.89
5610.02	9007(E/NE)-N1	1.00	15.80	90.37	77	363.21
5610.03	9007(E/NE)-N2	1.00	15.57	90.50	78	426.34
5610.04	9007(E/NE)-W1	1.00	15.35	89.56	80	603.09
5610.05	9007(E/NE)-S1	1.00	15.23	90.81	80	5391.84
5610.06	9007(E/NE)-E1	5.00	15.28	89.30	81	8684.76
METHOD BLANK	TBLK421	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

B1

Lab Name: FMETL NJDEP#: 13461
 Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5610.01
 Sample wt/vol: 7.4 (g/ml) G Lab File ID: VB007835.D
 Level: (low/med) MED Date Received: 8/8/00
 % Moisture: not dec. 11.18 Date Analyzed: 8/11/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	2700	U
107131	Acrylonitrile	2700	U
75650	tert-Butyl alcohol	5000	U
1634044	Methyl-tert-Butyl ether	1100	U
108203	Di-isopropyl ether	760	U
	Dichlorodifluoromethane	1500	U
74-87-3	Chloromethane	380	U
75-01-4	Vinyl Chloride	1100	U
74-83-9	Bromomethane	760	U
75-00-3	Chloroethane	1100	U
75-69-4	Trichlorofluoromethane	760	U
75-35-4	1,1-Dichloroethene	380	U
67-64-1	Acetone	760	U
75-15-0	Carbon Disulfide	380	U
75-09-2	Methylene Chloride	2500	
156-60-5	trans-1,2-Dichloroethene	760	U
75-35-3	1,1-Dichloroethane	380	U
108-05-4	Vinyl Acetate	1100	U
78-93-3	2-Butanone	1100	U
	cis-1,2-Dichloroethene	380	U
67-66-3	Chloroform	380	U
75-55-6	1,1,1-Trichloroethane	380	U
56-23-5	Carbon Tetrachloride	760	U
71-43-2	Benzene	380	U
107-06-2	1,2-Dichloroethane	760	U
79-01-6	Trichloroethene	380	U
78-87-5	1,2-Dichloropropane	380	U
75-27-4	Bromodichloromethane	380	U
110-75-8	2-Chloroethyl vinyl ether	760	U
10061-01-5	cis-1,3-Dichloropropene	380	U
108-10-1	4-Methyl-2-Pentanone	760	U
108-88-3	Toluene	380	U
10061-02-6	trans-1,3-Dichloropropene	760	U
79-00-5	1,1,2-Trichloroethane	760	U
127-18-4	Tetrachloroethene	380	U
591-78-6	2-Hexanone	760	U
126-48-1	Dibromochloromethane	760	U
108-90-7	Chlorobenzene	380	U
100-41-4	Ethylbenzene	760	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

B1

Lab Name: FMETL NJDEP#: 13461

Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5610.01

Sample wt/vol: 7.4 (g/ml) G Lab File ID: VB007835.D

Level: (low/med) MED Date Received: 8/8/00

% Moisture: not dec. 11.18 Date Analyzed: 8/11/00

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

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

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	1100	U
1330-20-7	o-Xylene	760	U
100-42-5	Styrene	760	U
75-25-2	Bromoform	760	U
79-34-5	1,1,2,2-Tetrachloroethane	760	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

B1

Lab Name: FMETL NJDEP#: 13461
Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5610.01
Sample wt/vol: 7.4 (g/ml) G Lab File ID: VB007835.D
Level: (low/med) MED Date Received: 8/8/00
% Moisture: not dec. 11.18 Date Analyzed: 8/11/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

FIELD ID:

N1

Lab Name: FMETL NJDEP#: 13461

Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5610.02

Sample wt/vol: 11.0 (g/ml) G Lab File ID: VB007836.D

Level: (low/med) MED Date Received: 8/8/00

% Moisture: not dec. 9.63 Date Analyzed: 8/11/00

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

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

CONCENTRATION UNITS:

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

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3300	U
1634044	Methyl-tert-Butyl ether	760	U
108203	Di-isopropyl ether	500	U
	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	760	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	760	U
75-69-4	Trichlorofluoromethane	500	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	850	
156-60-5	trans-1,2-Dichloroethene	500	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	760	U
78-93-3	2-Butanone	760	U
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	300	
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	500	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	500	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	500	U
126-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	500	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

N1

Lab Name: FMETL NJDEP#: 13461

Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5610.02

Sample wt/vol: 11.0 (g/ml) G Lab File ID: VB007836.D

Level: (low/med) MED Date Received: 8/8/00

% Moisture: not dec. 9.63 Date Analyzed: 8/11/00

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

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

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	760	U
1330-20-7	o-Xylene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

N1

Lab Name: FMETL NJDEP#: 13461
Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5610.02
Sample wt/vol: 11.0 (g/ml) G Lab File ID: VB007836.D
Level: (low/med) MED Date Received: 8/8/00
% Moisture: not dec. 9.63 Date Analyzed: 8/11/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

FIELD ID:

N2

Lab Name: FMETL NJDEP#: 13461
 Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5610.03
 Sample wt/vol: 12.3 (g/ml) G Lab File ID: VB007837.D
 Level: (low/med) MED Date Received: 8/8/00
 % Moisture: not dec. 9.5 Date Analyzed: 8/11/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1600	U
107131	Acrylonitrile	1600	U
75650	tert-Butyl alcohol	2900	U
1634044	Methyl-tert-Butyl ether	680	U
108203	Di-isopropyl ether	450	U
	Dichlorodifluoromethane	900	U
74-87-3	Chloromethane	230	U
75-01-4	Vinyl Chloride	680	U
74-83-9	Bromomethane	450	U
75-00-3	Chloroethane	680	U
75-69-4	Trichlorofluoromethane	450	U
75-35-4	1,1-Dichloroethene	230	U
67-64-1	Acetone	450	U
75-15-0	Carbon Disulfide	230	U
75-09-2	Methylene Chloride	500	
156-60-5	trans-1,2-Dichloroethene	450	U
75-35-3	1,1-Dichloroethane	230	U
108-05-4	Vinyl Acetate	680	U
78-93-3	2-Butanone	680	U
	cis-1,2-Dichloroethene	230	U
67-66-3	Chloroform	250	
75-55-6	1,1,1-Trichloroethane	230	U
56-23-5	Carbon Tetrachloride	450	U
71-43-2	Benzene	230	U
107-06-2	1,2-Dichloroethane	450	U
79-01-6	Trichloroethene	230	U
78-87-5	1,2-Dichloropropane	230	U
75-27-4	Bromodichloromethane	230	U
110-75-8	2-Chloroethyl vinyl ether	450	U
10061-01-5	cis-1,3-Dichloropropene	230	U
108-10-1	4-Methyl-2-Pentanone	450	U
108-88-3	Toluene	230	U
10061-02-6	trans-1,3-Dichloropropene	450	U
79-00-5	1,1,2-Trichloroethane	450	U
127-18-4	Tetrachloroethene	230	U
591-78-6	2-Hexanone	450	U
126-48-1	Dibromochloromethane	450	U
108-90-7	Chlorobenzene	230	U
100-41-4	Ethylbenzene	450	U

1A

FIELD ID:

VOLATILE ORGANICS ANALYSIS DATA SHEET

N2

Lab Name: FMETL NJDEP#: 13461

Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5610.03

Sample wt/vol: 12.3 (g/ml) G Lab File ID: VB007837.D

Level: (low/med) MED Date Received: 8/8/00

% Moisture: not dec. 9.5 Date Analyzed: 8/11/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
1330-20-7	m+p-Xylenes	680	U	U
1330-20-7	o-Xylene	450	U	U
100-42-5	Styrene	450	U	U
75-25-2	Bromoform	450	U	U
79-34-5	1,1,2,2-Tetrachloroethane	450	U	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

N2

Lab Name: FMETL NJDEP#: 13461
Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5610.03
Sample wt/vol: 12.3 (g/ml) G Lab File ID: VB007837.D
Level: (low/med) MED Date Received: 8/8/00
% Moisture: not dec. 9.5 Date Analyzed: 8/11/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

W1

Lab Name: FMETL NJDEP#: 13461

Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5610.04

Sample wt/vol: 11.9 (g/ml) G Lab File ID: VB007838.D

Level: (low/med) MED Date Received: 8/8/00

% Moisture: not dec. 10.44 Date Analyzed: 8/11/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein	1600		U
107131	Acrylonitrile	1600		U
75650	tert-Butyl alcohol	3000		U
1634044	Methyl-tert-Butyl ether	700		U
108203	Di-isopropyl ether	470		U
	Dichlorodifluoromethane	940		U
74-87-3	Chloromethane	230		U
75-01-4	Vinyl Chloride	700		U
74-83-9	Bromomethane	470		U
75-00-3	Chloroethane	700		U
75-69-4	Trichlorofluoromethane	470		U
75-35-4	1,1-Dichloroethene	230		U
67-64-1	Acetone	470		U
75-15-0	Carbon Disulfide	230		U
75-09-2	Methylene Chloride	440		J
156-60-5	trans-1,2-Dichloroethene	470		U
75-35-3	1,1-Dichloroethane	230		U
108-05-4	Vinyl Acetate	700		U
78-93-3	2-Butanone	700		U
	cis-1,2-Dichloroethene	230		U
67-66-3	Chloroform	300		
75-55-6	1,1,1-Trichloroethane	230		U
56-23-5	Carbon Tetrachloride	470		U
71-43-2	Benzene	230		U
107-06-2	1,2-Dichloroethane	470		U
79-01-6	Trichloroethene	230		U
78-87-5	1,2-Dichloropropane	230		U
75-27-4	Bromodichloromethane	230		U
110-75-8	2-Chloroethyl vinyl ether	470		U
10061-01-5	cis-1,3-Dichloropropene	230		U
108-10-1	4-Methyl-2-Pentanone	470		U
108-88-3	Toluene	230		U
10061-02-6	trans-1,3-Dichloropropene	470		U
79-00-5	1,1,2-Trichloroethane	470		U
127-18-4	Tetrachloroethene	230		U
591-78-6	2-Hexanone	470		U
126-48-1	Dibromochloromethane	470		U
108-90-7	Chlorobenzene	230		U
100-41-4	Ethylbenzene	470		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

W1

Lab Name: FMETL NJDEP#: 13461
 Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5610.04
 Sample wt/vol: 11.9 (g/ml) G Lab File ID: VB007838.D
 Level: (low/med) MED Date Received: 8/8/00
 % Moisture: not dec. 10.44 Date Analyzed: 8/11/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	700	U
1330-20-7	o-Xylene	470	U
100-42-5	Styrene	470	U
75-25-2	Bromoform	470	U
79-34-5	1,1,2,2-Tetrachloroethane	470	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

W1

Lab Name: FMETL NJDEP#: 13461
Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5610.04
Sample wt/vol: 11.9 (g/ml) G Lab File ID: VB007838.D
Level: (low/med) MED Date Received: 8/8/00
% Moisture: not dec. 10.44 Date Analyzed: 8/11/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

S1

Lab Name: FMETL NJDEP#: 13461Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____Matrix: (soil/water) SOIL Lab Sample ID: 5610.05Sample wt/vol: 11.9 (g/ml) G Lab File ID: VB007839.DLevel: (low/med) MED Date Received: 8/8/00% Moisture: not dec. 9.19 Date Analyzed: 8/11/00GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein	1600		U
107131	Acrylonitrile	1600		U
75650	tert-Butyl alcohol	3000		U
1634044	Methyl-tert-Butyl ether	690		U
108203	Di-isopropyl ether	460		U
	Dichlorodifluoromethane	920		U
74-87-3	Chloromethane	230		U
75-01-4	Vinyl Chloride	690		U
74-83-9	Bromomethane	460		U
75-00-3	Chloroethane	690		U
75-69-4	Trichlorofluoromethane	460		U
75-35-4	1,1-Dichloroethene	230		U
67-64-1	Acetone	460		U
75-15-0	Carbon Disulfide	230		U
75-09-2	Methylene Chloride	380		J
156-60-5	trans-1,2-Dichloroethene	460		U
75-35-3	1,1-Dichloroethane	230		U
108-05-4	Vinyl Acetate	690		U
78-93-3	2-Butanone	690		U
	cis-1,2-Dichloroethene	230		U
67-66-3	Chloroform	230		U
75-55-6	1,1,1-Trichloroethane	230		U
56-23-5	Carbon Tetrachloride	460		U
71-43-2	Benzene	230		U
107-06-2	1,2-Dichloroethane	460		U
79-01-6	Trichloroethene	230		U
78-87-5	1,2-Dichloropropane	230		U
75-27-4	Bromodichloromethane	230		U
110-75-8	2-Chloroethyl vinyl ether	460		U
10061-01-5	cis-1,3-Dichloropropene	230		U
108-10-1	4-Methyl-2-Pentanone	460		U
108-88-3	Toluene	230		U
10061-02-6	trans-1,3-Dichloropropene	460		U
79-00-5	1,1,2-Trichloroethane	460		U
127-18-4	Tetrachloroethene	230		U
591-78-6	2-Hexanone	460		U
126-48-1	Dibromochloromethane	460		U
108-90-7	Chlorobenzene	230		U
100-41-4	Ethylbenzene	460		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

S1

Lab Name: FMETL NJDEP#: 13461

Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5610.05

Sample wt/vol: 11.9 (g/ml) G Lab File ID: VB007839.D

Level: (low/med) MED Date Received: 8/8/00

% Moisture: not dec. 9.19 Date Analyzed: 8/11/00

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

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

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	690	U
1330-20-7	o-Xylene	460	U
100-42-5	Styrene	460	U
75-25-2	Bromoform	460	U
79-34-5	1,1,2,2-Tetrachloroethane	460	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

S1

Lab Name: FMETL NJDEP#: 13461

Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5610.05

Sample wt/vol: 11.9 (g/ml) G Lab File ID: VB007839.D

Level: (low/med) MED Date Received: 8/8/00

% Moisture: not dec. 9.19 Date Analyzed: 8/11/00

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

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

CONCENTRATION UNITS:

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

Number TICs found: 0

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

FIELD ID:

E1

Lab Name: FMETL NJDEP#: 13461
 Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5610.06
 Sample wt/vol: 11.4 (g/ml) G Lab File ID: VB007840.D
 Level: (low/med) MED Date Received: 8/8/00
 % Moisture: not dec. 10.7 Date Analyzed: 8/11/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1700	U
107131	Acrylonitrile	1700	U
75650	tert-Butyl alcohol	3200	U
1634044	Methyl-tert-Butyl ether	740	U
108203	Di-isopropyl ether	490	U
	Dichlorodifluoromethane	980	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	740	U
74-83-9	Bromomethane	490	U
75-00-3	Chloroethane	740	U
75-69-4	Trichlorofluoromethane	490	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	490	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	370	J
156-60-5	trans-1,2-Dichloroethene	490	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	740	U
78-93-3	2-Butanone	740	U
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	340	
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	490	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	490	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	490	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	490	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	490	U
79-00-5	1,1,2-Trichloroethane	490	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	490	U
126-48-1	Dibromochloromethane	490	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	490	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

E1

Lab Name: FMETL NJDEP#: 13461

Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5610.06

Sample wt/vol: 11.4 (g/ml) G Lab File ID: VB007840.D

Level: (low/med) MED Date Received: 8/8/00

% Moisture: not dec. 10.7 Date Analyzed: 8/11/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
1330-20-7	m+p-Xylenes		740	U
1330-20-7	o-Xylene		490	U
100-42-5	Styrene		490	U
75-25-2	Bromoform		490	U
79-34-5	1,1,2,2-Tetrachloroethane		490	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

E1

Lab Name: FMETL NJDEP#: 13461
Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5610.06
Sample wt/vol: 11.4 (g/ml) G Lab File ID: VB007840.D
Level: (low/med) MED Date Received: 8/8/00
% Moisture: not dec. 10.7 Date Analyzed: 8/11/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

FIELD ID:

Trip Blank

Lab Name: FMETL NJDEP#: 13461
 Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5610.07
 Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB007834.D
 Level: (low/med) MED Date Received: 8/8/00
 % Moisture: not dec. 0 Date Analyzed: 8/11/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3200	U
1634044	Methyl-tert-Butyl ether	750	U
108203	Di-isopropyl ether	500	U
	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	750	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	750	U
75-69-4	Trichlorofluoromethane	500	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	34000	
156-60-5	trans-1,2-Dichloroethene	500	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	750	U
78-93-3	2-Butanone	750	U
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	500	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	500	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	500	U
126-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	500	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

Trip Blank

Lab Name: FMETL NJDEP#: 13461
 Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5610.07
 Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB007834.D
 Level: (low/med) MED Date Received: 8/8/00
 % Moisture: not dec. 0 Date Analyzed: 8/11/00
 GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

Trip Blank

Lab Name: FMETL NJDEP#: 13461
Project: 97-1251 Case No.: 5610 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5610.07
Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB007834.D
Level: (low/med) MED Date Received: 8/8/00
% Moisture: not dec. 0 Date Analyzed: 8/11/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

FIELD ID.

B-9007(W)-1

Lab Name: FMETL NJDEP # 13461
 Project: _____ Case No.: 5840 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5840.01
 Sample wt/vol: 10.9 (g/ml) G Lab File ID: VC004357.D
 Level: (low/med) MED Date Received: 11/8/00
 % Moisture: not dec. 12.28 Date Analyzed: 11/9/00
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein		1800	U
107131	Acrylonitrile		1800	U
75650	tert-Butyl alcohol		3400	U
1634044	Methyl-tert-Butyl ether		780	U
108203	Di-isopropyl ether		520	U
75718	Dichlorodifluoromethane		1000	U
74-87-3	Chloromethane		260	U
75-01-4	Vinyl Chloride		780	U
74-83-9	Bromomethane		520	U
75-00-3	Chloroethane		780	U
75-69-4	Trichlorofluoromethane		520	U
75-35-4	1,1-Dichloroethene		260	U
67-64-1	Acetone		520	U
75-15-0	Carbon Disulfide		260	U
75-09-2	Methylene Chloride		480	J
156-60-5	trans-1,2-Dichloroethene		520	U
75-35-3	1,1-Dichloroethane		260	U
108-05-4	Vinyl Acetate		780	U
78-93-3	2-Butanone		1300	
	cis-1,2-Dichloroethene		260	U
67-66-3	Chloroform		260	U
75-55-6	1,1,1-Trichloroethane		260	U
56-23-5	Carbon Tetrachloride		520	U
71-43-2	Benzene		260	U
107-06-2	1,2-Dichloroethane		520	U
79-01-6	Trichloroethene		260	U
78-87-5	1,2-Dichloropropane		260	U
75-27-4	Bromodichloromethane		260	U
110-75-8	2-Chloroethyl vinyl ether		520	U
10061-01-5	cis-1,3-Dichloropropene		260	U
108-10-1	4-Methyl-2-Pentanone		520	U
108-88-3	Toluene		260	U
10061-02-6	trans-1,3-Dichloropropene		520	U
79-00-5	1,1,2-Trichloroethane		520	U
127-18-4	Tetrachloroethene		260	U
591-78-6	2-Hexanone		520	U
126-48-1	Dibromochloromethane		520	U
108-90-7	Chlorobenzene		260	U
100-41-4	Ethylbenzene		520	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

B-9007(W)-1

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5840 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5840.01

Sample wt/vol: 10.9 (g/ml) G Lab File ID: VC004357.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 12.28 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	780	U
1330-20-7	o-Xylene	520	U
100-42-5	Styrene	520	U
75-25-2	Bromoform	520	U
79-34-5	1,1,2,2-Tetrachloroethane	520	U
541-73-1	1,3-Dichlorobenzene	780	U
106-46-7	1,4-Dichlorobenzene	780	U
95-50-1	1,2-Dichlorobenzene	780	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

B-9007(W)-1

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 5840 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5840.01
Sample wt/vol: 10.9 (g/ml) G Lab File ID: VC004357.D
Level: (low/med) MED Date Received: 11/8/00
% Moisture: not dec. 12.28 Date Analyzed: 11/9/00
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

FIELD ID.

B-9007(W)-2

Lab Name: FMETL NJDEP # 13461
 Project: _____ Case No.: 5840 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5840.02
 Sample wt/vol: 12.2 (g/ml) G Lab File ID: VC004358.D
 Level: (low/med) MED Date Received: 11/8/00
 % Moisture: not dec. 12.13 Date Analyzed: 11/9/00
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1600	U
107131	Acrylonitrile	1600	U
75650	tert-Butyl alcohol	3000	U
1634044	Methyl-tert-Butyl ether	700	U
108203	Di-isopropyl ether	470	U
75718	Dichlorodifluoromethane	940	U
74-87-3	Chloromethane	230	U
75-01-4	Vinyl Chloride	700	U
74-83-9	Bromomethane	470	U
75-00-3	Chloroethane	700	U
75-69-4	Trichlorofluoromethane	470	U
75-35-4	1,1-Dichloroethene	230	U
67-64-1	Acetone	470	U
75-15-0	Carbon Disulfide	230	U
75-09-2	Methylene Chloride	440	J
156-60-5	trans-1,2-Dichloroethene	470	U
75-35-3	1,1-Dichloroethane	230	U
108-05-4	Vinyl Acetate	700	U
78-93-3	2-Butanone	1200	U
	cis-1,2-Dichloroethene	230	U
67-66-3	Chloroform	230	U
75-55-6	1,1,1-Trichloroethane	230	U
56-23-5	Carbon Tetrachloride	470	U
71-43-2	Benzene	230	U
107-06-2	1,2-Dichloroethane	470	U
79-01-6	Trichloroethene	230	U
78-87-5	1,2-Dichloropropane	230	U
75-27-4	Bromodichloromethane	230	U
110-75-8	2-Chloroethyl vinyl ether	470	U
10061-01-5	cis-1,3-Dichloropropene	230	U
108-10-1	4-Methyl-2-Pentanone	470	U
108-88-3	Toluene	230	U
10061-02-6	trans-1,3-Dichloropropene	470	U
79-00-5	1,1,2-Trichloroethane	470	U
127-18-4	Tetrachloroethene	230	U
591-78-6	2-Hexanone	470	U
126-48-1	Dibromochloromethane	470	U
108-90-7	Chlorobenzene	230	U
100-41-4	Ethylbenzene	470	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

B-9007(W)-2

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5840 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5840.02

Sample wt/vol: 12.2 (g/ml) G Lab File ID: VC004358.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 12.13 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	700	U
1330-20-7	o-Xylene	470	U
100-42-5	Styrene	470	U
75-25-2	Bromoform	470	U
79-34-5	1,1,2,2-Tetrachloroethane	470	U
541-73-1	1,3-Dichlorobenzene	700	U
106-46-7	1,4-Dichlorobenzene	700	U
95-50-1	1,2-Dichlorobenzene	700	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

B-9007(W)-2

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 5840 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5840.02
Sample wt/vol: 12.2 (g/ml) G Lab File ID: VC004358.D
Level: (low/med) MED Date Received: 11/8/00
% Moisture: not dec. 12.13 Date Analyzed: 11/9/00
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

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

Project # : 5840
Location : 9007
UST Reg. # :

Analysis : OQA-QAM-025
Matrix : Soil
Inst. ID. : GC TPHC INST. #1
Column Type : RTX-5, 0.32mm ID, 30M
Injection Volume : 1uL

Date Received : 08-Nov-00
Date Extracted : 09-Nov-00
Extraction Method : Shake
Analysis Complete : 09-Nov-00
Analyst : B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5840.01	B-9007(w)-1	1.00	15.42	87.72	174	ND
5840.02	B-9007(w)-2	1.00	15.40	87.87	174	ND
METHOD BLANK	TBLK436	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

9007-B6

Lab Name: FMETL NJDEP#: 13461
 Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5852.02
 Sample wt/vol: 11.9 (g/ml) G Lab File ID: VB008787.D
 Level: (low/med) MED Date Received: 11/13/00
 % Moisture: not dec. 17.55 Date Analyzed: 11/15/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3300	U
1634044	Methyl-tert-Butyl ether	770	U
108203	Di-isopropyl ether	510	U
75718	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	260	U
75-01-4	Vinyl Chloride	770	U
74-83-9	Bromomethane	510	U
75-00-3	Chloroethane	770	U
75-69-4	Trichlorofluoromethane	510	U
75-35-4	1,1-Dichloroethene	260	U
67-64-1	Acetone	510	U
75-15-0	Carbon Disulfide	260	U
75-09-2	Methylene Chloride	500	JB
156-60-5	trans-1,2-Dichloroethene	510	U
75-34-3	1,1-Dichloroethane	260	U
108-05-4	Vinyl Acetate	770	U
78-93-3	2-Butanone	1200	
156-59-2	cis-1,2-Dichloroethene	260	U
67-66-3	Chloroform	320	
71-55-6	1,1,1-Trichloroethane	260	U
56-23-5	Carbon Tetrachloride	510	U
71-43-2	Benzene	260	U
107-06-2	1,2-Dichloroethane	510	U
79-01-6	Trichloroethene	260	U
78-87-5	1,2-Dichloropropane	260	U
75-27-4	Bromodichloromethane	260	U
110-75-8	2-Chloroethyl vinyl ether	510	U
10061-01-5	cis-1,3-Dichloropropene	260	U
108-10-1	4-Methyl-2-Pentanone	510	U
108-88-3	Toluene	260	U
10061-02-6	trans-1,3-Dichloropropene	510	U
79-00-5	1,1,2-Trichloroethane	510	U
127-18-4	Tetrachloroethene	260	U
591-78-6	2-Hexanone	510	U
124-48-1	Dibromochloromethane	510	U
108-90-7	Chlorobenzene	260	U
100-41-4	Ethylbenzene	510	U

1A

FIELD ID:

VOLATILE ORGANICS ANALYSIS DATA SHEET

9007-B6

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.02

Sample wt/vol: 11.9 (g/ml) G Lab File ID: VB008787.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 17.55 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
00-00-0	m+p-Xylenes		770	U
95-47-6	o-Xylene		510	U
100-42-5	Styrene		510	U
75-25-2	Bromoform		510	U
79-34-5	1,1,2,2-Tetrachloroethane		510	U
541-73-1	1,3-Dichlorobenzene		770	U
106-46-7	1,4-Dichlorobenzene		770	U
95-50-1	1,2-Dichlorobenzene		770	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-B6

Lab Name: FMETL NJDEP#: 13461
Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5852.02
Sample wt/vol: 11.9 (g/ml) G Lab File ID: VB008787.D
Level: (low/med) MED Date Received: 11/13/00
% Moisture: not dec. 17.55 Date Analyzed: 11/15/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

FIELD ID:

9007-NW1

Lab Name: FMETL NJDEP#: 13461
 Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5852.03
 Sample wt/vol: 11.0 (g/ml) G Lab File ID: VB008788.D
 Level: (low/med) MED Date Received: 11/13/00
 % Moisture: not dec. 12.48 Date Analyzed: 11/15/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3400	U
1634044	Methyl-tert-Butyl ether	770	U
108203	Di-isopropyl ether	520	U
75718	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	260	U
75-01-4	Vinyl Chloride	770	U
74-83-9	Bromomethane	520	U
75-00-3	Chloroethane	770	U
75-69-4	Trichlorofluoromethane	520	U
75-35-4	1,1-Dichloroethene	260	U
67-64-1	Acetone	520	U
75-15-0	Carbon Disulfide	260	U
75-09-2	Methylene Chloride	570	B
156-60-5	trans-1,2-Dichloroethene	520	U
75-34-3	1,1-Dichloroethane	260	U
108-05-4	Vinyl Acetate	770	U
78-93-3	2-Butanone	1200	
156-59-2	cis-1,2-Dichloroethene	260	U
67-66-3	Chloroform	260	U
71-55-6	1,1,1-Trichloroethane	260	U
56-23-5	Carbon Tetrachloride	520	U
71-43-2	Benzene	260	U
107-06-2	1,2-Dichloroethane	520	U
79-01-6	Trichloroethene	260	U
78-87-5	1,2-Dichloropropane	260	U
75-27-4	Bromodichloromethane	260	U
110-75-8	2-Chloroethyl vinyl ether	520	U
10061-01-5	cis-1,3-Dichloropropene	260	U
108-10-1	4-Methyl-2-Pentanone	520	U
108-88-3	Toluene	260	U
10061-02-6	trans-1,3-Dichloropropene	520	U
79-00-5	1,1,2-Trichloroethane	520	U
127-18-4	Tetrachloroethene	260	U
591-78-6	2-Hexanone	520	U
124-48-1	Dibromochloromethane	520	U
108-90-7	Chlorobenzene	260	U
100-41-4	Ethylbenzene	520	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

9007-NW1

Lab Name: FMETL NJDEP#: 13461
 Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5852.03
 Sample wt/vol: 11.0 (g/ml) G Lab File ID: VB008788.D
 Level: (low/med) MED Date Received: 11/13/00
 % Moisture: not dec. 12.48 Date Analyzed: 11/15/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

00-00-0	m+p-Xylenes	770	U
95-47-6	o-Xylene	520	U
100-42-5	Styrene	520	U
75-25-2	Bromoform	520	U
79-34-5	1,1,2,2-Tetrachloroethane	520	U
541-73-1	1,3-Dichlorobenzene	770	U
106-46-7	1,4-Dichlorobenzene	770	U
95-50-1	1,2-Dichlorobenzene	770	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-NW1

Lab Name: FMETL NJDEP#: 13461
Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5852.03
Sample wt/vol: 11.0 (g/ml) G Lab File ID: VB008788.D
Level: (low/med) MED Date Received: 11/13/00
% Moisture: not dec. 12.48 Date Analyzed: 11/15/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

9007-SW1

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.04

Sample wt/vol: 11.5 (g/ml) G Lab File ID: VB008789.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 9.19 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein	1700		U
107131	Acrylonitrile	1700		U
75650	tert-Butyl alcohol	3100		U
1634044	Methyl-tert-Butyl ether	720		U
108203	Di-isopropyl ether	480		U
75718	Dichlorodifluoromethane	960		U
74-87-3	Chloromethane	240		U
75-01-4	Vinyl Chloride	720		U
74-83-9	Bromomethane	480		U
75-00-3	Chloroethane	720		U
75-69-4	Trichlorofluoromethane	480		U
75-35-4	1,1-Dichloroethene	240		U
67-64-1	Acetone	480		U
75-15-0	Carbon Disulfide	240		U
75-09-2	Methylene Chloride	550		B
156-60-5	trans-1,2-Dichloroethene	480		U
75-34-3	1,1-Dichloroethane	240		U
108-05-4	Vinyl Acetate	720		U
78-93-3	2-Butanone	1100		
156-59-2	cis-1,2-Dichloroethene	240		U
67-66-3	Chloroform	240		U
71-55-6	1,1,1-Trichloroethane	240		U
56-23-5	Carbon Tetrachloride	480		U
71-43-2	Benzene	240		U
107-06-2	1,2-Dichloroethane	480		U
79-01-6	Trichloroethene	240		U
78-87-5	1,2-Dichloropropane	240		U
75-27-4	Bromodichloromethane	240		U
110-75-8	2-Chloroethyl vinyl ether	480		U
10061-01-5	cis-1,3-Dichloropropene	240		U
108-10-1	4-Methyl-2-Pentanone	480		U
108-88-3	Toluene	240		U
10061-02-6	trans-1,3-Dichloropropene	480		U
79-00-5	1,1,2-Trichloroethane	480		U
127-18-4	Tetrachloroethene	240		U
591-78-6	2-Hexanone	480		U
124-48-1	Dibromochloromethane	480		U
108-90-7	Chlorobenzene	240		U
100-41-4	Ethylbenzene	480		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

9007-SW1

Lab Name: FMETL NJDEP#: 13461
 Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5852.04
 Sample wt/vol: 11.5 (g/ml) G Lab File ID: VB008789.D
 Level: (low/med) MED Date Received: 11/13/00
 % Moisture: not dec. 9.19 Date Analyzed: 11/15/00
 GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

00-00-0	m+p-Xylenes	720	U
95-47-6	o-Xylene	480	U
100-42-5	Styrene	480	U
75-25-2	Bromoform	480	U
79-34-5	1,1,2,2-Tetrachloroethane	480	U
541-73-1	1,3-Dichlorobenzene	720	U
106-46-7	1,4-Dichlorobenzene	720	U
95-50-1	1,2-Dichlorobenzene	720	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-SW1

Lab Name: FMETL NJDEP#: 13461
Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5852.04
Sample wt/vol: 11.5 (g/ml) G Lab File ID: VB008789.D
Level: (low/med) MED Date Received: 11/13/00
% Moisture: not dec. 9.19 Date Analyzed: 11/15/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

FIELD ID:

9007-NE1

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.05

Sample wt/vol: 11.1 (g/ml) G Lab File ID: VB008790.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 11.4 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3300	U
1634044	Methyl-tert-Butyl ether	760	U
108203	Di-isopropyl ether	510	U
75718	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	760	U
74-83-9	Bromomethane	510	U
75-00-3	Chloroethane	760	U
75-69-4	Trichlorofluoromethane	510	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	510	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	630	B
156-60-5	trans-1,2-Dichloroethene	510	U
75-34-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	760	U
78-93-3	2-Butanone	1200	
156-59-2	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
71-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	510	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	510	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	510	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	510	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	510	U
79-00-5	1,1,2-Trichloroethane	510	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	510	U
124-48-1	Dibromochloromethane	510	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	510	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

9007-NE1

Lab Name: FMETL NJDEP#: 13461
 Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5852.05
 Sample wt/vol: 11.1 (g/ml) G Lab File ID: VB008790.D
 Level: (low/med) MED Date Received: 11/13/00
 % Moisture: not dec. 11.4 Date Analyzed: 11/15/00
 GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
00-00-0	m+p-Xylenes		760	U
95-47-6	o-Xylene		510	U
100-42-5	Styrene		510	U
75-25-2	Bromoform		510	U
79-34-5	1,1,2,2-Tetrachloroethane		510	U
541-73-1	1,3-Dichlorobenzene		760	U
106-46-7	1,4-Dichlorobenzene		760	U
95-50-1	1,2-Dichlorobenzene		760	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-NE1

Lab Name: FMETL NJDEP#: 13461
Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5852.05
Sample wt/vol: 11.1 (g/ml) G Lab File ID: VB008790.D
Level: (low/med) MED Date Received: 11/13/00
% Moisture: not dec. 11.4 Date Analyzed: 11/15/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

9007-SE1

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.06

Sample wt/vol: 11.7 (g/ml) G Lab File ID: VB008791.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 12.13 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein	1700		U
107131	Acrylonitrile	1700		U
75650	tert-Butyl alcohol	3200		U
1634044	Methyl-tert-Butyl ether	730		U
108203	Di-isopropyl ether	490		U
75718	Dichlorodifluoromethane	970		U
74-87-3	Chloromethane	240		U
75-01-4	Vinyl Chloride	730		U
74-83-9	Bromomethane	490		U
75-00-3	Chloroethane	730		U
75-69-4	Trichlorofluoromethane	490		U
75-35-4	1,1-Dichloroethene	240		U
67-64-1	Acetone	490		U
75-15-0	Carbon Disulfide	240		U
75-09-2	Methylene Chloride	630		B
156-60-5	trans-1,2-Dichloroethene	490		U
75-34-3	1,1-Dichloroethane	240		U
108-05-4	Vinyl Acetate	730		U
78-93-3	2-Butanone	1200		
156-59-2	cis-1,2-Dichloroethene	240		U
67-66-3	Chloroform	240		U
71-55-6	1,1,1-Trichloroethane	240		U
56-23-5	Carbon Tetrachloride	490		U
71-43-2	Benzene	240		U
107-06-2	1,2-Dichloroethane	490		U
79-01-6	Trichloroethene	240		U
78-87-5	1,2-Dichloropropane	240		U
75-27-4	Bromodichloromethane	240		U
110-75-8	2-Chloroethyl vinyl ether	490		U
10061-01-5	cis-1,3-Dichloropropene	240		U
108-10-1	4-Methyl-2-Pentanone	490		U
108-88-3	Toluene	240		U
10061-02-6	trans-1,3-Dichloropropene	490		U
79-00-5	1,1,2-Trichloroethane	490		U
127-18-4	Tetrachloroethene	240		U
591-78-6	2-Hexanone	490		U
124-48-1	Dibromochloromethane	490		U
108-90-7	Chlorobenzene	240		U
100-41-4	Ethylbenzene	490		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

9007-SE1

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.06

Sample wt/vol: 11.7 (g/ml) G Lab File ID: VB008791.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 12.13 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

00-00-0	m+p-Xylenes	730	U
95-47-6	o-Xylene	490	U
100-42-5	Styrene	490	U
75-25-2	Bromoform	490	U
79-34-5	1,1,2,2-Tetrachloroethane	490	U
541-73-1	1,3-Dichlorobenzene	730	U
106-46-7	1,4-Dichlorobenzene	730	U
95-50-1	1,2-Dichlorobenzene	730	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-SE1

Lab Name: FMETL NJDEP#: 13461
Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5852.06
Sample wt/vol: 11.7 (g/ml) G Lab File ID: VB008791.D
Level: (low/med) MED Date Received: 11/13/00
% Moisture: not dec. 12.13 Date Analyzed: 11/15/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

9007-SE2

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.07

Sample wt/vol: 11.2 (g/ml) G Lab File ID: VB008792.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 16.23 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein	1900		U
107131	Acrylonitrile	1900		U
75650	tert-Butyl alcohol	3400		U
1634044	Methyl-tert-Butyl ether	790		U
108203	Di-isopropyl ether	530		U
75718	Dichlorodifluoromethane	1100		U
74-87-3	Chloromethane	260		U
75-01-4	Vinyl Chloride	790		U
74-83-9	Bromomethane	530		U
75-00-3	Chloroethane	790		U
75-69-4	Trichlorofluoromethane	530		U
75-35-4	1,1-Dichloroethene	260		U
67-64-1	Acetone	530		U
75-15-0	Carbon Disulfide	260		U
75-09-2	Methylene Chloride	790		B
156-60-5	trans-1,2-Dichloroethene	530		U
75-34-3	1,1-Dichloroethane	260		U
108-05-4	Vinyl Acetate	790		U
78-93-3	2-Butanone	1200		
156-59-2	cis-1,2-Dichloroethene	260		U
67-66-3	Chloroform	260		U
71-55-6	1,1,1-Trichloroethane	260		U
56-23-5	Carbon Tetrachloride	530		U
71-43-2	Benzene	260		U
107-06-2	1,2-Dichloroethane	530		U
79-01-6	Trichloroethene	260		U
78-87-5	1,2-Dichloropropane	260		U
75-27-4	Bromodichloromethane	260		U
110-75-8	2-Chloroethyl vinyl ether	530		U
10061-01-5	cis-1,3-Dichloropropene	260		U
108-10-1	4-Methyl-2-Pentanone	530		U
108-88-3	Toluene	260		U
10061-02-6	trans-1,3-Dichloropropene	530		U
79-00-5	1,1,2-Trichloroethane	530		U
127-18-4	Tetrachloroethene	260		U
591-78-6	2-Hexanone	530		U
124-48-1	Dibromochloromethane	530		U
108-90-7	Chlorobenzene	260		U
100-41-4	Ethylbenzene	530		U

1A

FIELD ID:

VOLATILE ORGANICS ANALYSIS DATA SHEET

9007-SE2

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.07

Sample wt/vol: 11.2 (g/ml) G Lab File ID: VB008792.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 16.23 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
00-00-0	m+p-Xylenes		790	U
95-47-6	o-Xylene		530	U
100-42-5	Styrene		530	U
75-25-2	Bromoform		530	U
79-34-5	1,1,2,2-Tetrachloroethane		530	U
541-73-1	1,3-Dichlorobenzene		790	U
106-46-7	1,4-Dichlorobenzene		790	U
95-50-1	1,2-Dichlorobenzene		790	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-SE2

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.07

Sample wt/vol: 11.2 (g/ml) G Lab File ID: VB008792.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 16.23 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

Number TICs found: 0

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

9007-SW2

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.08

Sample wt/vol: 10.8 (g/ml) G Lab File ID: VB008793.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 9.71 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein	1800		U
107131	Acrylonitrile	1800		U
75650	tert-Butyl alcohol	3400		U
1634044	Methyl-tert-Butyl ether	770		U
108203	Di-isopropyl ether	520		U
75718	Dichlorodifluoromethane	1000		U
74-87-3	Chloromethane	260		U
75-01-4	Vinyl Chloride	770		U
74-83-9	Bromomethane	520		U
75-00-3	Chloroethane	770		U
75-69-4	Trichlorofluoromethane	520		U
75-35-4	1,1-Dichloroethene	260		U
67-64-1	Acetone	520		U
75-15-0	Carbon Disulfide	260		U
75-09-2	Methylene Chloride	850		B
156-60-5	trans-1,2-Dichloroethene	520		U
75-34-3	1,1-Dichloroethane	260		U
108-05-4	Vinyl Acetate	770		U
78-93-3	2-Butanone	1200		
156-59-2	cis-1,2-Dichloroethene	260		U
67-66-3	Chloroform	260		U
71-55-6	1,1,1-Trichloroethane	260		U
56-23-5	Carbon Tetrachloride	520		U
71-43-2	Benzene	260		U
107-06-2	1,2-Dichloroethane	520		U
79-01-6	Trichloroethene	260		U
78-87-5	1,2-Dichloropropane	260		U
75-27-4	Bromodichloromethane	260		U
110-75-8	2-Chloroethyl vinyl ether	520		U
10061-01-5	cis-1,3-Dichloropropene	260		U
108-10-1	4-Methyl-2-Pentanone	520		U
108-88-3	Toluene	260		U
10061-02-6	trans-1,3-Dichloropropene	520		U
79-00-5	1,1,2-Trichloroethane	520		U
127-18-4	Tetrachloroethene	260		U
591-78-6	2-Hexanone	520		U
124-48-1	Dibromochloromethane	520		U
108-90-7	Chlorobenzene	260		U
100-41-4	Ethylbenzene	520		U

VOLATILE ORGANICS ANALYSIS DATA SHEET

9007-SW2

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.08

Sample wt/vol: 10.8 (g/ml) G Lab File ID: VB008793.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 9.71 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
00-00-0	m+p-Xylenes		770	U
95-47-6	o-Xylene		520	U
100-42-5	Styrene		520	U
75-25-2	Bromoform		520	U
79-34-5	1,1,2,2-Tetrachloroethane		520	U
541-73-1	1,3-Dichlorobenzene		770	U
106-46-7	1,4-Dichlorobenzene		770	U
95-50-1	1,2-Dichlorobenzene		770	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-SW2

Lab Name: FMETL NJDEP#: 13461
Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5852.08
Sample wt/vol: 10.8 (g/ml) G Lab File ID: VB008793.D
Level: (low/med) MED Date Received: 11/13/00
% Moisture: not dec. 9.71 Date Analyzed: 11/15/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

FIELD ID:

9007-SW3

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.10

Sample wt/vol: 11.1 (g/ml) G Lab File ID: VB008794.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 10.7 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3300	U
1634044	Methyl-tert-Butyl ether	760	U
108203	Di-isopropyl ether	510	U
75718	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	760	U
74-83-9	Bromomethane	510	U
75-00-3	Chloroethane	760	U
75-69-4	Trichlorofluoromethane	510	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	510	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	990	B
156-60-5	trans-1,2-Dichloroethene	510	U
75-34-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	760	U
78-93-3	2-Butanone	1200	
156-59-2	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
71-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	510	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	510	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	510	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	510	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	510	U
79-00-5	1,1,2-Trichloroethane	510	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	510	U
124-48-1	Dibromochloromethane	510	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	510	U

1A

FIELD ID:

VOLATILE ORGANICS ANALYSIS DATA SHEET

9007-SW3

Lab Name: FMETL NJDEP#: 13461

Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5852.10

Sample wt/vol: 11.1 (g/ml) G Lab File ID: VB008794.D

Level: (low/med) MED Date Received: 11/13/00

% Moisture: not dec. 10.7 Date Analyzed: 11/15/00

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

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
00-00-0	m+p-Xylenes		760	U
95-47-6	o-Xylene		510	U
100-42-5	Styrene		510	U
75-25-2	Bromoform		510	U
79-34-5	1,1,2,2-Tetrachloroethane		510	U
541-73-1	1,3-Dichlorobenzene		760	U
106-46-7	1,4-Dichlorobenzene		760	U
95-50-1	1,2-Dichlorobenzene		760	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

9007-SW3

Lab Name: FMETL NJDEP#: 13461
Project: Evans Case No.: 5852 Location: 9007 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5852.10
Sample wt/vol: 11.1 (g/ml) G Lab File ID: VB008794.D
Level: (low/med) MED Date Received: 11/13/00
% Moisture: not dec. 10.7 Date Analyzed: 11/15/00
GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

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

Client :	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	Lab. ID # :	PBLK625
		Date Rec'd:	
		Extraction Date:	11/14/00
		Analysis Date:	11/14/00
Analysis:	SW-846 Method 8082	Location :	
Matrix:	Soil	Field ID:	
Analyst:	T. Frankovich		

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	100.00	0.0112	ND	0.49	10.00
Arochlor 1221	1	100.00	0.0206	ND	0.49	10.00
Arochlor 1232	1	100.00	0.0140	ND	0.49	10.00
Arochlor 1242	1	100.00	0.0160	ND	0.49	10.00
Arochlor 1248	1	100.00	0.0064	ND	0.49	10.00
Arochlor 1254	1	100.00	0.0040	ND	0.49	10.00
Arochlor 1260	1	100.00	0.0036	ND	0.49	10.00

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

Client :	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	Lab. ID # :	5852.01
		Date Rec'd:	11/13/00
		Extraction Date:	11/14/00
		Analysis Date:	11/14/00

Analysis:	SW-846 Method 8082	Location :	Building 9007
Matrix:	Soil		UST Project
Analyst:	T. Frankovich	Field ID:	9007-EPS1

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	89.94	0.0115	ND	0.49	10.79
Arochlor 1221	1	89.94	0.0212	ND	0.49	10.79
Arochlor 1232	1	89.94	0.0144	ND	0.49	10.79
Arochlor 1242	1	89.94	0.0165	ND	0.49	10.79
Arochlor 1248	1	89.94	0.0066	ND	0.49	10.79
Arochlor 1254	1	89.94	0.0041	ND	0.49	10.79
Arochlor 1260	1	89.94	0.0037	0.190	0.49	10.79

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

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

Lab. ID # : 5852.02
 Date Rec'd: 11/13/00
 Extraction Date: 11/14/00
 Analysis Date: 11/14/00

Analysis: SW-846 Method 8082
 Matrix: Soil
 Analyst: T. Frankovich

Location : Building 9007
 UST Project
 Field ID: 9007-B6

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	82.45	0.0145	ND	0.49	9.39
Arochlor 1221	1	82.45	0.0266	ND	0.49	9.39
Arochlor 1232	1	82.45	0.0181	ND	0.49	9.39
Arochlor 1242	1	82.45	0.0207	ND	0.49	9.39
Arochlor 1248	1	82.45	0.0083	ND	0.49	9.39
Arochlor 1254	1	82.45	0.0052	ND	0.49	9.39
Arochlor 1260	1	82.45	0.0046	ND	0.49	9.39

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

Client :	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	Lab. ID # :	5852.03
		Date Rec'd:	11/13/00
		Extraction Date:	11/14/00
		Analysis Date:	11/14/00

Analysis:	SW-846 Method 8082	Location :	Building 9007
Matrix:	Soil		UST Project
Analyst:	T. Frankovich	Field ID:	9007-NW1

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	87.52	0.0126	ND	0.49	10.12
Arochlor 1221	1	87.52	0.0233	ND	0.49	10.12
Arochlor 1232	1	87.52	0.0158	ND	0.49	10.12
Arochlor 1242	1	87.52	0.0181	ND	0.49	10.12
Arochlor 1248	1	87.52	0.0072	ND	0.49	10.12
Arochlor 1254	1	87.52	0.0045	ND	0.49	10.12
Arochlor 1260	1	87.52	0.0041	ND	0.49	10.12

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

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

Lab. ID # : 5852.04
 Date Rec'd: 11/13/00
 Extraction Date: 11/14/00
 Analysis Date: 11/14/00

Analysis: SW-846 Method 8082
 Matrix: Soil
 Analyst: T. Frankovich

Location : Building 9007
 UST Project
 Field ID: 9007-SW1

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	90.81	0.0116	ND	0.49	10.63
Arochlor 1221	1	90.81	0.0213	ND	0.49	10.63
Arochlor 1232	1	90.81	0.0145	ND	0.49	10.63
Arochlor 1242	1	90.81	0.0166	ND	0.49	10.63
Arochlor 1248	1	90.81	0.0066	ND	0.49	10.63
Arochlor 1254	1	90.81	0.0041	ND	0.49	10.63
Arochlor 1260	1	90.81	0.0037	ND	0.49	10.63

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

Client :	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	Lab. ID # :	5852.05
		Date Rec'd:	11/13/00
		Extraction Date:	11/14/00
		Analysis Date:	11/14/00

Analysis:	SW-846 Method 8082	Location :	Building 9007
Matrix:	Soil		UST Project
Analyst:	T. Frankovich	Field ID:	9007-NE1

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	88.60	0.0121	ND	0.49	10.47
Arochlor 1221	1	88.60	0.0222	ND	0.49	10.47
Arochlor 1232	1	88.60	0.0151	ND	0.49	10.47
Arochlor 1242	1	88.60	0.0172	ND	0.49	10.47
Arochlor 1248	1	88.60	0.0069	ND	0.49	10.47
Arochlor 1254	1	88.60	0.0043	ND	0.49	10.47
Arochlor 1260	1	88.60	0.0039	ND	0.49	10.47

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

Client :	U.S. Army	Lab. ID # :	5852.06
	DPW. SELFM-PW-EV	Date Rec'd:	11/13/00
	Bldg. 173	Extraction Date:	11/14/00
	Ft. Monmouth, NJ 07703	Analysis Date:	11/14/00

Analysis:	SW-846 Method 8082	Location :	Building 9007
Matrix:	Soil		UST Project
Analyst:	T. Frankovich	Field ID:	9007-SE1

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	87.87	0.0117	ND	0.49	10.94
Arochlor 1221	1	87.87	0.0214	ND	0.49	10.94
Arochlor 1232	1	87.87	0.0146	ND	0.49	10.94
Arochlor 1242	1	87.87	0.0166	ND	0.49	10.94
Arochlor 1248	1	87.87	0.0067	ND	0.49	10.94
Arochlor 1254	1	87.87	0.0042	ND	0.49	10.94
Arochlor 1260	1	87.87	0.0037	ND	0.49	10.94

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

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

Lab. ID # : 5852.07
 Date Rec'd: 11/13/00
 Extraction Date: 11/14/00
 Analysis Date: 11/14/00

Analysis: SW-846 Method 8082
 Matrix: Soil
 Analyst: T. Frankovich

Location : Building 9007
 UST Project
 Field ID: 9007-SE2

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	83.77	0.0124	ND	0.49	10.75
Arochlor 1221	1	83.77	0.0229	ND	0.49	10.75
Arochlor 1232	1	83.77	0.0155	ND	0.49	10.75
Arochlor 1242	1	83.77	0.0178	ND	0.49	10.75
Arochlor 1248	1	83.77	0.0071	ND	0.49	10.75
Arochlor 1254	1	83.77	0.0044	ND	0.49	10.75
Arochlor 1260	1	83.77	0.0040	ND	0.49	10.75

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

Client :	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	Lab. ID # :	5852.08
		Date Rec'd:	11/13/00
		Extraction Date:	11/14/00
		Analysis Date:	11/14/00

Analysis:	SW-846 Method 8082	Location :	Building 9007
Matrix:	Soil		UST Project
Analyst:	T. Frankovich	Field ID:	9007-SW2

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	90.29	0.0119	ND	0.49	10.40
Arochlor 1221	1	90.29	0.0219	ND	0.49	10.40
Arochlor 1232	1	90.29	0.0149	ND	0.49	10.40
Arochlor 1242	1	90.29	0.0170	ND	0.49	10.40
Arochlor 1248	1	90.29	0.0068	ND	0.49	10.40
Arochlor 1254	1	90.29	0.0043	ND	0.49	10.40
Arochlor 1260	1	90.29	0.0038	ND	0.49	10.40

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

Client :	U.S. Army	Lab. ID # :	5852.09
	DPW. SELFM-PW-EV	Date Rec'd:	11/13/00
	Bldg. 173	Extraction Date:	11/14/00
	Ft. Monmouth, NJ 07703	Analysis Date:	11/14/00

Analysis:	SW-846 Method 8082	Location :	Building 9007
Matrix:	Soil		UST Project
Analyst:	T. Frankovich	Field ID:	9007-OBS2

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	91.49	0.0114	ND	0.49	10.75
Arochlor 1221	1	91.49	0.0209	ND	0.49	10.75
Arochlor 1232	1	91.49	0.0142	ND	0.49	10.75
Arochlor 1242	1	91.49	0.0163	ND	0.49	10.75
Arochlor 1248	1	91.49	0.0065	ND	0.49	10.75
Arochlor 1254	1	91.49	0.0041	ND	0.49	10.75
Arochlor 1260	1	91.49	0.0037	ND	0.49	10.75

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

Client :	U.S. Army	Lab. ID # :	5852.10
	DPW. SELFM-PW-EV	Date Rec'd:	11/13/00
	Bldg. 173	Extraction Date:	11/14/00
	Ft. Monmouth, NJ 07703	Analysis Date:	11/14/00

Analysis:	SW-846 Method 8082	Location :	Building 9007
Matrix:	Soil		UST Project
Analyst:	T. Frankovich	Field ID:	9007-SW3

Pesticide/PCB	Dilution Factor	% Solid	MDL (mg/kg)	Result (mg/kg)	Cleanup Criteria (mg/kg)	Weight (g)
Arochlor 1016	1	89.30	0.0123	ND	0.49	10.16
Arochlor 1221	1	89.30	0.0227	ND	0.49	10.16
Arochlor 1232	1	89.30	0.0154	ND	0.49	10.16
Arochlor 1242	1	89.30	0.0176	ND	0.49	10.16
Arochlor 1248	1	89.30	0.0071	ND	0.49	10.16
Arochlor 1254	1	89.30	0.0044	ND	0.49	10.16
Arochlor 1260	1	89.30	0.0040	ND	0.49	10.16

ND = Not Detected

MDL = Method Detection Limit

Column-Primary:

Column-Confirmation:

Rtx-5 30m/.32mmID/.25um

Rtx-1701 30m/.32mmID/.25um

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

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

Project # : 5852
 Location : 9007
 UST Reg. # :

Analysis : OQA-QAM-025
 Matrix : Soil
 Inst. ID : GC TPHC INST. #1
 Column Type : RTX-5, 0.32mm ID, 30M
 Injection Volume : 1uL

Date Received : 13-Nov-00
 Date Extracted : 14-Nov-00
 Extraction Method : Shake
 Analysis Complete : 14-Nov-00
 Analyst : B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5852.01	9007-EPS1	1.00	15.52	89.94	168	385.54
5852.02	9007-B6	1.00	15.37	82.45	185	ND
5852.03	9007-NW1	1.00	15.50	87.52	173	ND
5852.04	9007-SW1	1.00	15.34	90.81	169	ND
5852.05	9007-NE1	1.00	15.12	88.60	175	ND
5852.06	9007-SE1	1.00	15.65	87.87	171	ND
5852.07	9007-SE2	1.00	15.17	83.77	185	ND
5852.08	9007-SW2	1.00	15.40	90.29	169	ND
5852.10	9007-SW3	1.00	15.26	89.30	172	ND
METHOD BLANK	TBLK437	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Remedial Investigation Report

*Building 9401
Camp Evans Area*

NJDEP UST Registration No. 90029-35

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APPENDICES

Appendix A	Signed Site Assessment Summary
Appendix B	Photographs of Remedial Excavation
Appendix C	Soil Sample Analytical Data Package

EXECUTIVE SUMMARY

Remedial Excavation

Between January 26, 2000 and February 2, 2000, a remedial excavation was performed at the former location of an underground storage tank (UST) at Building 9401 in the Camp Evans area of the U.S. Army Fort Monmouth, Wall Township, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 90029-35 (Fort Monmouth Identification No. 9401), had formerly been located north of Building 9401. The UST was a 1,000-gallon, No. 2 fuel oil tank, and had been closed by removal in 1991.

Site Assessment

The site assessment was performed by Tetra Tech EM Inc. (Tetra Tech) and Versar, Inc. (Versar) (formerly SMC Environmental Services Group). Samples collected at the time the remedial excavation was performed contained concentrations of total petroleum hydrocarbons (TPHC) ranging from non-detect to 2,216.46 milligrams per kilogram (mg/kg). After additional soil was excavated and removed, soil remaining in the excavation contained concentrations of TPHC ranging from non-detectable to 845.33 mg/kg. The total amount of soil removed from the excavation was 235 cubic yards.

Site Restoration

After receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with clean native soil from the Building 9401 area, as well as clean soil imported from the New Jersey Sand and Gravel Company. The excavation site was then restored to its original condition.

Conclusions and Recommendations

Based on post-excavation soil sampling results, TPHC concentrations in soil at the former location of the UST or associated piping do not exceed the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent soil cleanup criteria of 1,000 mg/kg TPHC used by Fort Monmouth. No further action is proposed with regard to the site assessment of UST No. 90029-35 at Building 9401.

1.0 REMEDIAL INVESTIGATION ACTIVITIES

A remedial excavation was performed at the former location of an underground storage tank (UST) between January 26, 2000 and February 2, 2000. The former UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 90029-35, had been previously closed by removal at Building 9401 at the Camp Evans area of U.S. Army Fort Monmouth, Wall Township, New Jersey in 1991. The UST, a steel 1,000-gallon tank containing No. 2 fuel oil, had been located north of Building 9401. The excavation was performed to remediate TPHC contamination that had been discovered during the deactivation of underground utilities at Building 9401.

The remedial excavation was performed in accordance with the Site Assessment Section of the Fort Monmouth UST Management Plan (S.O.P. Number 19), which had previously been approved by the NJDEP. The signed site assessment summary form for the former location of UST No. 90029-35 is included in Appendix A.

Based on an inspection of the remedial excavation, field screening of subsurface soil, and soil sample analytical results, Tetra Tech has concluded that at least one significant historical discharge was associated with the former UST No. 90029-35 or associated piping.

This report was prepared based on information collected at the time the remedial excavation was performed. Section 1 of this remedial investigation report provides a site description and summarizes remedial excavation activities. Section 2 describes site investigation activities, including field screening and soil sampling. Section 3 presents the post-excavation soil sampling results. Conclusions and recommendations are presented in Section 4 of this report.

1.1 SITE DESCRIPTION

Building 9401 is located in the main section of the Camp Evans area of the Fort Monmouth Army Base as shown in Figure 1. UST No. 90029-35 was located north of Building 9401 and its associated piping ran approximately 10 feet south from the UST to Building 9401. Figure 1 shows the former location of the UST and the remedial excavation relative to Building 9401.

1.2 REMEDIAL EXCAVATION ACTIVITIES

Tetra Tech began excavation at the former location of the UST adjacent to the transformer area on the north side of Building 9401 (the initial excavation location had been selected based on information obtained from Fort Monmouth, as to the former location of the UST). Subsequently, clean backfill material was observed in the west wall of the excavation which indicated that the UST had been located farther west than previously indicated. As a result, the excavation was extended to the west (see Figure 2). After the excavation was extended, visual evidence of contamination was observed by the Tetra Tech subsurface evaluator and detected by a photoionization detection (PID) and flame ionization detector (FID) in soil at the bottom of the western half of the excavation (Appendix B provides photographs of the remedial excavation). After soil samples of the contaminated soil were collected for documentation purposes, the contaminated soil was removed and transported to the soil staging area and additional post-excavation samples were collected.

1.3 MANAGEMENT OF EXCAVATED SOILS

Post-excavation soil sampling locations are shown in Figure 2 and discussed in Section 2.2. Based on PID/FID air monitoring results and total petroleum hydrocarbon (TPHC) results from post-excavation soil samples, soil at the 9401B2, 9401B3, and 9401B4 sample locations (western end of the excavation) was contaminated. This soil was removed to the staging area for disposal off site at a later date; and clean excavated soil and imported clean fill were used to backfill the UST excavation.

2.0 SITE INVESTIGATION ACTIVITIES

In accordance with NJDEP's "Technical Requirements for Site Remediation" and "Field Sampling Procedures Manual," Tetra Tech and Versar personnel conducted the site assessment. The site investigation was managed by Tetra Tech and performed by Versar. All analyses were performed and results reported by the U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory operated by TECOM-Vinnell Services, Inc. (TVS). All sampling was performed under the direct supervision of a NJDEP certified subsurface evaluator in accordance with methods described in NJDEP's "Field Sampling Procedures Manual" dated 1992. Sampling frequency and parameters analyzed complied with applicable regulations at the date of UST closure specified in NJDEP-BUST's document "Interim Closure Requirements for Underground Storage Tank Systems" dated October 1990;

revisions dated November 1, 1991. All records of site investigation activities are maintained by Tetra Tech and the Fort Monmouth Department of Public Works (DPW) Environmental Office.

The following parties participated in UST closure and site investigation activities:

- Subsurface Evaluator: Kevin J. Phelan
Employer: Tetra Tech EM Inc.
Telephone No.: (973) 983-0507
NJDEP Certification No.: 0018436
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Telephone No.: (732) 532-4359
NJDEP Company Certification No.: 13461

2.1 FIELD SCREENING/MONITORING

Visual screening and field screening using a PID/FID were performed by a NJDEP-certified subsurface evaluator to identify potentially contaminated material. Soil removed from the excavation sidewalls and bottom did exhibit evidence of potential contamination at the time the remedial excavation was performed, and was removed to the staging area.

2.2 SOIL SAMPLING

On January 26, 200, after completion of the initial phase of the remedial excavation, post-excavation soil samples 9401S1, 9401W1, and 9401B1 were collected from three locations in the excavation. Figure 2 presents the sampling locations. Excavation sidewall samples were collected at the edge of the remedial excavation and bottom samples were collected from 5.5 to 6 feet below ground surface (bgs). The sidewall samples were collected from 5 to 5.5-feet bgs. Samples 9401SP1, 9401SP2, 9401SP3 were collected from adjacent overburden soil piles to verify that the piles were not contaminated and could be used as clean backfill for the excavation. All samples were analyzed for TPHC and total solids.

Analytical results for the original post-excavation samples revealed a maximum of 845.53 milligrams per kilogram (mg/kg) TPHC at the 9401SP1 sample location from one of the overburden soil piles. This concentration does not exceed 1,000 mg/kg TPHC, which is NJDEP's criterion for additional soil removal/remediation or for required volatile organic compound (VOC) sampling. However, because the backfill from the UST removal could be clearly distinguished in the western sidewall of the initial phase

of the remedial excavation, Tetra Tech and Versar continued excavating additional soil on January 31 and February 1, 2000. After completion of the additional excavation, post-excavation soil samples 9401S2, 9401S3, 9401E1, 9401N1, 9401B2, 9401B3, 9401B4, 9401B5, 9401B6, 9401W1, and 9401B7 were collected from a total of ten locations. Because indications of contamination were observed, Tetra Tech collected samples 9401B2, 9401B3, and 9401B4 to document the contamination and then excavated the soil and removed it to the staging area. After the removal of the contaminated soil, Tetra Tech collected additional bottom soil samples. As a result of the excavation activities, bottom samples were collected from 6 to 6.5-foot bgs and 9 to 9.5-foot bgs and sidewall samples were collected between 3 to 3.5-foot bgs and from 6 to 6.5-foot bgs. All samples were analyzed for TPHC and total solids.

Laboratory analytical results for the second phase of remedial post-excavation samples revealed TPHC concentrations of 2,216.45 mg/kg at the 9401B3 sample location and 1,696.33 mg/kg at the 9401B4 sample location. These concentrations exceed the NJDEP's cleanup criterion of 1,000 mg/kg TPHC requiring additional soil removal or VOC sampling; however, this soil had already been excavated and removed to the soil staging area. The laboratory analytical results for the underlying bottom samples and the sidewall samples revealed non-detectable concentrations of TPHC.

On February 2, 2000, Tetra Tech and Versar conducted a final phase of remedial excavation in order to remove all questionable material. After the excavation was completed, Tetra Tech collected post-excavation soil samples 9401B8, 9401N2, and 9401E2 from three sampling locations. The bottom sample was collected from 9 to 9.5-foot bgs and the sidewall samples were collected between 4.5 to 5-foot bgs and 10 to 10.5-foot bgs (the sidewall samples were collected from areas that appeared to be visually questionable). All samples were analyzed for TPHC and total solids.

Post-excavation soil samples were collected in accordance with standard sampling procedures specified in NJDEP's Field Sampling Procedures Manual dated 1992. Samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory in Fort Monmouth, New Jersey, for analysis. A summary of post-excavation sampling activities, including parameters analyzed for, is provided in Table 1.

3.0 SOIL SAMPLING RESULTS

To evaluate soil conditions after the remedial excavation was performed, post-excavation soil samples were collected from six locations on January 26, 2000, one location on January 31, 2000, ten locations on February 1, 2000, and three locations on February 2, 2000. All samples were analyzed for TPHC and total solids. Post-excavation sampling results were compared to the NJDEP residential direct contact soil cleanup criterion of 10,000 mg/kg for total organic contaminants (N.J.A.C. 7:26D and revisions dated February 3, 1994) and the more stringent soil cleanup criterion of 1,000 mg/kg TPHC used by Fort Monmouth. A summary of the analytical results and comparison to the NJDEP soil cleanup criterion is provided in Table 2. Soil sampling locations are shown in Figure 2. The analytical data package is provided in Appendix C.

All of the post-excavation soil samples collected on January 26, 2000, January 31, 2000, and February 1, 2000 contained concentrations of TPHC ranging from non-detect to 2,216.45 milligrams per kilogram (mg/kg). The samples collected on February 2, 2000 contained non-detectable concentrations of TPHC.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results for all post-excavation soil samples for soil remaining in the remedial UST excavation at Building 9401 were below the NJDEP soil cleanup criterion for required VOC analysis.

Based on post-excavation sampling results, soil containing TPHC concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent Fort Monmouth soil cleanup criterion of 1,000 mg/kg TPHC, no longer exist in the former location of the UST or associated piping; therefore, no further action is proposed with regard to the site assessment of UST No. 90029-35 at Building 9401.

Legend of Sample Identifications
Camp Evans Area
Wall Township, New Jersey

B	Sample from the bottom of the excavation
W	Samples from the west sidewall of the excavation
E	Samples from the east sidewall of the excavation
N	Samples from the north sidewall of the excavation
S	Samples from the south sidewall of the excavation
RF	Sample from beneath the former location of the return/feed lines of the UST
VL	Sample from beneath the former location of the vent line to the UST
OBS	Sample from the overburden soil pile of a UST excavation to determine if the soil can be used as backfill or must be transported to the contaminated soil stockpile
N21	Sample collected from the north sidewall on the second day of sampling (from a particular UST excavation) first sample (from that particular sidewall or area of the excavation) (NOTE: The "21" designation can be used with any of the letter combinations listed above).
FPS	Soil located directly adjacent to the fill port of the tank ("Fill Port Soil").
BFP	Soil located beneath the fill port of the tank ("Beneath Fill Port")
9116CSP	Contaminated soil pile from the UST-9116 excavation
DS	Deep Sample
9196BE1A	Geoprobe boring performed on the east side of the UST-9196 excavation to investigate contamination from the leaking UST. Last number denotes the boring number and last letter indicates which sample in the sequence.
RFL/B6	Sample from remedial excavation of a leaking remote fill line/what area of the excavation the sample was collected.
RF(CT)	Samples was collected from return feed lines consisting of copper tubing.
RFL(2)	Samples collected from a second remote fill line for a particular UST excavation
RB1	Remedial excavation for a particular building. The second letter and number designate the particular area of the excavation where the sample was collected
CNFRM	Confirmatory sample to confirm that contamination has been removed
CNFM	Another designation for a confirmatory sample
R/F/VL	Return/feed/vent lines. Used at buildings where the return/feed lines and the vent lines were located close together and one sample could be collected for both lines
SCNT1	Sample collected at a location of suspected contamination
(W)E1	Sample collected from the eastern sidewall of the western half of the excavation (remedial excavation).
TP	Test pit/trench
HWAB	Hazardous waste area building (former location)
AST	Above ground storage tank
9105ASTB1	Sample collected at the former location of an AST at the specified building
DEL	Delineation sample to document the extent of contamination
SD	Sample collected from a storm drain
SW	Sample collected from a sidewall of a remedial excavation
CTR	Copper tubing run
CSP-1	Clean soil pile

Table 1
 Summary of Remedial -Excavation Sampling Activities
 Building 9401, Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9401/S1	1/26/00	1/27/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401/W1	1/26/00	1/27/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401/B1	1/26/00	1/27/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401SP1	1/26/00	1/27/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401SP2	1/26/00	1/27/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401SP3	1/26/00	1/27/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401S2	1/31/00	2/1/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401S3	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401E1	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401N1	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401B2	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401B3	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401B4	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401B5**	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401B6**	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401W1	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401B7	2/1/00	2/2/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401B8	2/2/00	2/3/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401N2	2/2/00	2/3/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
9401E2	2/2/00	2/3/00	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

- *TPHC Total petroleum hydrocarbons
- ** Samples collected to remediate contamination found in sample above.

Table 2
Remedial Excavation Soil Sampling Results
Building 9401, Camp Evans Area
Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9401/S1	5122.01	1/26/00	1/27/00	TPHC	180	ND	10,000	No
9401/W1	5122.02	1/26/00	1/27/00	TPHC	177	ND	10,000	No
9401B1	5122.03	1/26/00	1/27/00	TPHC	177	ND	10,000	No
9401SP1	5122.04	1/26/00	1/27/00	TPHC	184	845.53	10,000	No
9401SP2	5122.05	1/26/00	1/27/00	TPHC	189	ND	10,000	No
9401SP3	5122.06	1/26/00	1/27/00	TPHC	178	ND	10,000	No
9401S2	5132.01	1/31/00	2/1/00	TPHC	173	ND	10,000	No
9401S3	5134.01	2/1/00	2/2/00	TPHC	176	ND	10,000	No
9401E1	5134.02	2/1/00	2/2/00	TPHC	189	ND	10,000	No
9401N1	5134.03	2/1/00	2/2/00	TPHC	175	ND	10,000	No
9401B2	5134.04	2/1/00	2/2/00	TPHC	179	301.21	10,000	No
9401B3	5134.05	2/1/00	2/2/00	TPHC	177	2,216.45	10,000	No
9401B4	5134.06	2/1/00	2/2/00	TPHC	176	1,676.33	10,000	No
9401B5**	5134.07	2/1/00	2/2/00	TPHC	168	ND	10,000	No
9401B6**	5134.08	2/1/00	2/2/00	TPHC	169	ND	10,000	No
9401W1	5134.09	2/1/00	2/2/00	TPHC	184	ND	10,000	No
9401B7	5134.10	2/1/00	2/2/00	TPHC	162	ND	10,000	No
9401B8	5139.01	2/2/00	2/3-4/00	TPHC	179	ND	10,000	No
9401N2	5139.02	2/2/00	2/3-4/00	TPHC	166	ND	10,000	No
9401E2	5139.03	2/2/00	2/3-4/00	TPHC	176	ND	10,000	No

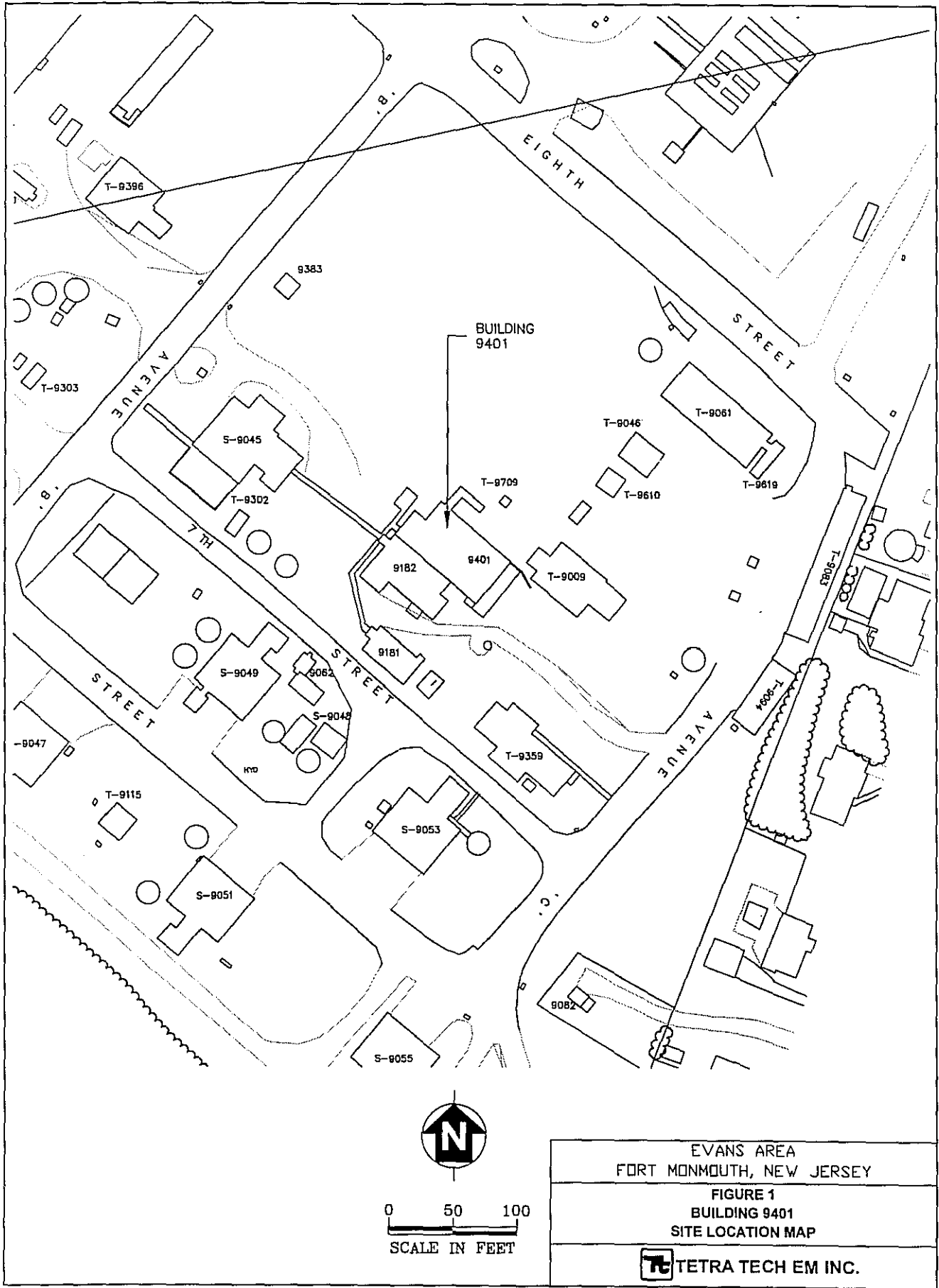
Note:

* Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.

ND Not detected

TPHC Total petroleum hydrocarbons

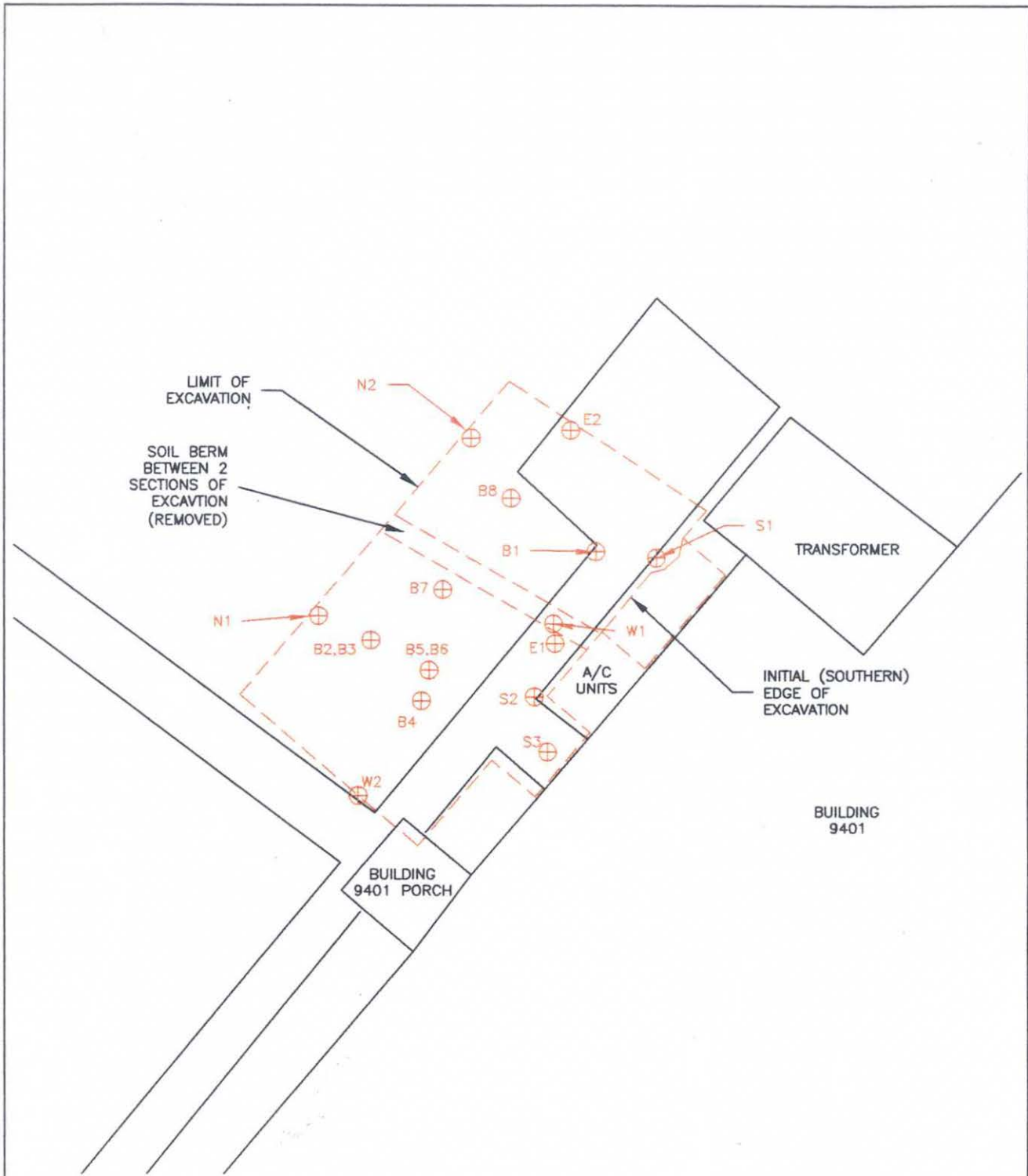
** Samples collected to remediate contamination found in sample above.



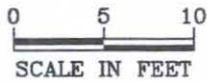
EVANS AREA
FORT MONMOUTH, NEW JERSEY


FIGURE 1
BUILDING 9401
SITE LOCATION MAP

 TETRA TECH EM INC.



NOTE: ALL SAMPLE IDS WERE ASSIGNED BASED ON SITE NORTH TOWARD MONMOUTH BOULEVARD



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 2 BUILDING 9401 TPHC REMEDIAL INVESTIGATION (JULY-AUGUST 2000)
 TETRA TECH EM INC.

APPENDIX A

SIGNED SITE ASSESSMENT SUMMARY FORM

UST NO. 90029-35

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: US Army, Fort Monmouth, Evans Area

Facility Street Address: Building 1207, DCSOPS-BID

Municipality: Wall Township County : Monmouth

Block: 240, 241 and 242 Lot(s): 240 (55.01, 55.02, 55.03 & 55.04), 241 (1), 242 (1.01 & 1.02)

Telephone Number : (732) 239-2427

B. Owner (RP)'s Name: US Army, CECOM

Street Address: DCSOPS-BID, Bldg. 1207 City : Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-5052

C. (Check as appropriate)

- Site Investigation

Report (SIR) \$500 Fee

- Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager : Mr. Ian Curtis
- UST Registration Number : (7 digits): 90029 - 35
- Incident Report Number (10 or 12 digits): _____
- Tank Closure Number C(N)9 (7 characters): Approved by Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E : Yes

Name: Kevin J. Phelan Signature: Kevin J. Phelan UST Cert. No.: 0018436

Firm: Tetra Tech EM, Inc. Firm's UST Cert. Number: US00457

Firm Address: 1 Bank Street, Suite 103 City: Rockaway

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

State: NJ

Zip: 07866

Telephone Number : (973) 9830507, Ext. 230

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

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

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

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

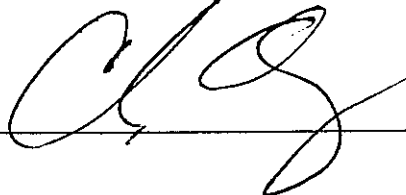
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true,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

Name (Print or Type): Mr. Charles Appleby

Title: BRAC Environmental Coordinator, Evans Area

NJDEP Subsurface Evaluator # 2056

Signature: _____



Company Name: US Army, CECOM, DCSOPS-BID, Fort Monmouth NJ, 07703

Date: November 30, 2000

APPENDIX B

PHOTOGRAPHS OF REMEDIAL EXCAVATION

UST NO. 90029-35



PHOTO 1: View of questionable material in the eastern end of UST-9401 excavation (looking west).



PHOTO 2: View of backhoe excavating western end of UST-9401 excavation (looking southeast).

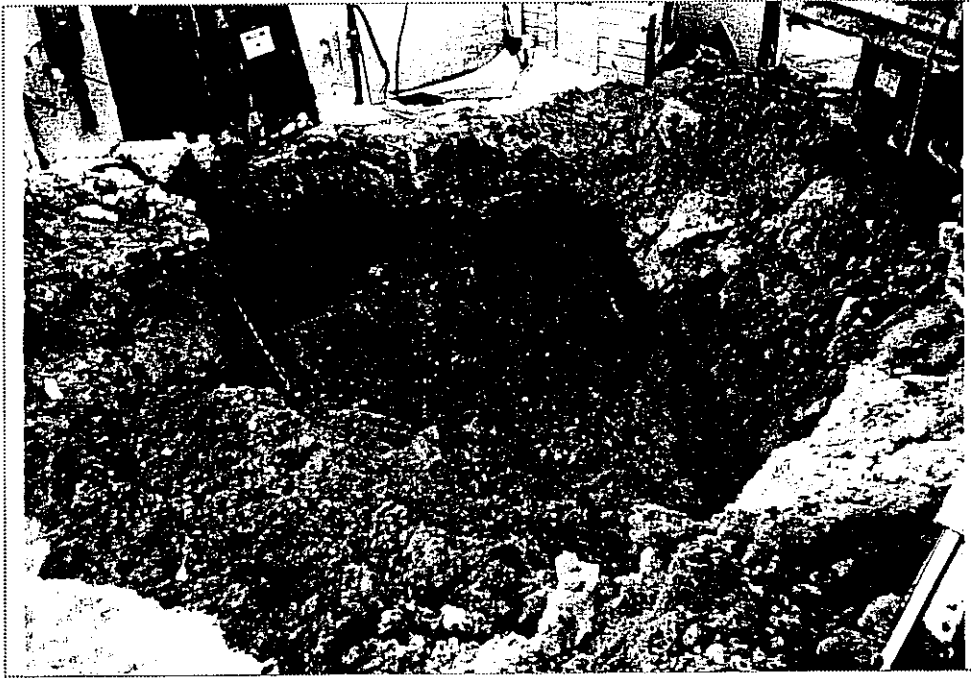


PHOTO 3: View of questionable material in sidewall of UST-9401 excavation (looking southeast).

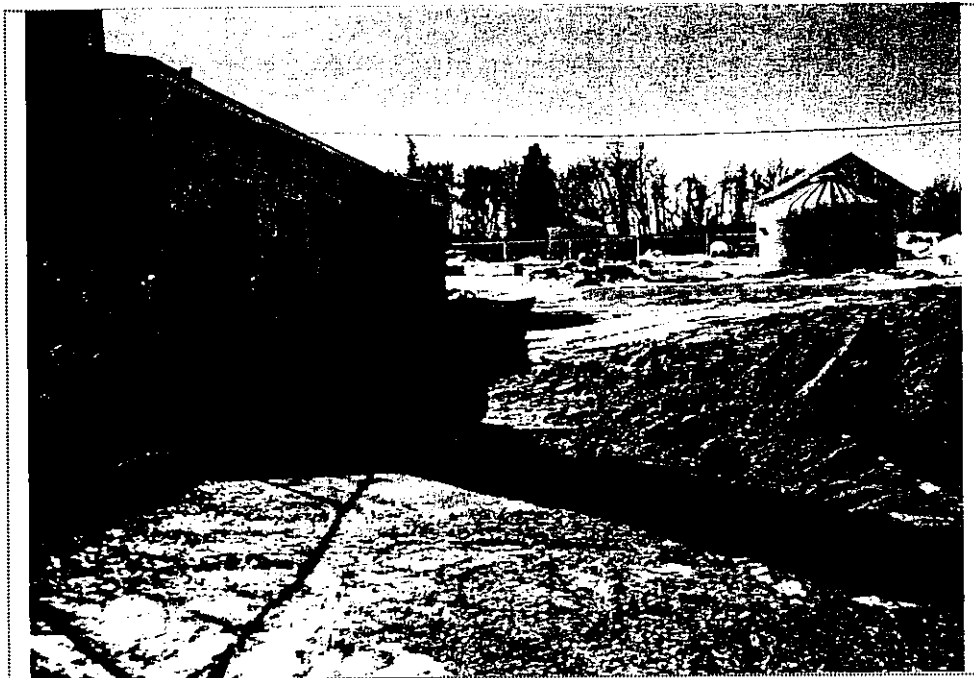


PHOTO 4: View of UST-9401 site restoration (looking southwest).

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA PACKAGE

UST NO. 90029-35

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

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

Project # : 5122
Location : Bldg.9401
UST Reg. # :


Analysis : OQA-QAM-025
Matrix : Soil
Inst. ID. : GC TPHC INST. #1
Column Type : RTX-5, 0.32mm ID, 30M
Injection Volume : 1uL

Date Received : 26-Jan-00
Date Extracted : 27-Jan-00
Extraction Method : Shake
Analysis Complete : 27-Jan-00
Analyst : B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5122.01	9401-S1	1.00	15.06	86.66	180	ND
5122.02	9401-W1	1.00	15.19	87.20	177	ND
5122.03	9401-B1	1.00	15.55	85.40	177	ND
5122.04	9401-SP1	1.00	15.05	84.65	184	845.53
5122.05	9401-SP2	1.00	15.01	83.05	189	ND
5122.06	9401-SP3	1.00	15.22	86.61	178	ND
METHOD BLANK	TBLK317	1.00	15.00	100.00	157	ND

ND = Not Detected

MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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

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

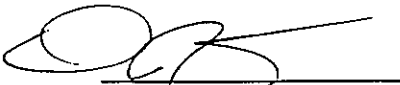
Project # : 5134
Location : Bldg.9401
UST Reg. # :

Analysis : OQA-QAM-025
Matrix : Soil
Inst. ID. : GC TPHC INST. #1
Column Type : RTX-5, 0.32mm ID, 30M
Injection Volume : 1uL

Date Received : 01-Feb-00
Date Extracted : 02-Feb-00
Extraction Method : Shake
Analysis Complete : 02-Feb-00
Analyst : B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5134.01	9401-S3	1.00	15.32	86.95	176	ND
5134.02	9401-E1	1.00	15.04	82.51	189	ND
5134.03	9401-N1	1.00	15.28	87.81	175	ND
5134.04	9401-B2	1.00	15.19	86.52	179	301.21
5134.05	9401-B3	1.00	15.45	86.01	177	2216.45
5134.06	9401-B4	1.00	15.32	87.09	176	1676.33
5134.07	9401-B5	1.00	15.18	91.89	168	ND
5134.08	9401-SB6	1.00	15.18	91.38	169	ND
5134.09	9401-W1	1.00	15.01	85.17	184	ND
5134.10	9401-B7	1.00	15.15	95.55	162	ND
METHOD BLANK	TBLK320	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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

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


Project # : 5139
Location : Bldg.9401 & 9007
UST Reg. # :

Analysis : OQA-QAM-025
Matrix : Soil
Inst. ID. : GC TPHC INST. #1
Column Type : RTX-5, 0.32mm ID, 30M
Injection Volume : 1uL

Date Received : 02-Feb-00
Date Extracted : 03-Feb-00
Extraction Method : Shake
Analysis Complete : 04-Feb-00
Analyst : B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5139.01	9401-B8	1.00	15.12	86.69	179	ND
5139.02	9401-N2	1.00	15.05	93.95	166	ND
5139.03	9401-E2	1.00	15.11	88.57	176	ND
5139.04	9007 9401 -E1	1.00	15.40	83.74	182	1978.76
5139.05	9007 9401 -N1	1.00	15.13	86.41	180	ND
5139.06	9007 9401 -B.M.H.	1.00	15.06	81.81	191	ND
METHOD BLANK	TBLK321	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

United States Army
Fort Monmouth, New Jersey

Site Investigation Report

***Exploratory Test Trenching and Geoprobe/Hand Sampling of
Suspect Tank Areas and Future AST Locations
Camp Evans Area***

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4.0 CONCLUSIONS AND RECOMMENDATIONS.....6

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- Table 1 Summary of Exploratory Test Trench Sampling Activities**
- Table 2 Post Excavation Soil Sampling Results**

FIGURES

- Figures 1 through 50 Suspected UST Exploratory Test Trench and Soil Sample Location
Geoprobe /Hand Collection Maps**

APPENDICES

- Appendix A Signed Site Assessment Summary Form**
- Appendix B Photographs of Exploratory Test Trench Locations**
- Appendix C Soil Sample Analytical Data Packages**

EXECUTIVE SUMMARY

UST Closure

During the fall of 1997 and winter of 1998, exploratory test trenches were excavated at several dozen areas where old underground storage tanks (USTs) were suspected to be present at the Camp Evans area of the U.S. Army Fort Monmouth, Wall Township, New Jersey. The test trenches were excavated to confirm the presence or absence of USTs in the suspect areas.

Site Assessment

The site assessment was performed by Tetra Tech EM Inc. (Tetra Tech) and SMC Environmental Services Group (SMC). The only evidence of potentially contaminated soils was observed at the following buildings: 9004, 9057, 9089, 9090, and 9110. Samples collected at the time the test trenches were excavated contained concentrations of total petroleum hydrocarbons (TPHC) ranging from non-detect to 10,886.11 milligrams per kilogram (mg/kg). The total amount of soil removed from the excavations was 132 cubic yards.

Site Restoration

After receipt of clean post-excavation soil sampling results, the excavations were backfilled to grade with clean native soil from the surrounding area, and, if needed, clean soil imported from the New Jersey Sand and Gravel Company. The excavation sites were then restored to their original condition.

Conclusions and Recommendations

Based on post-excavation soil sampling results, TPHC concentrations in soil do not exceed the New Jersey Department of Environmental Protection (NJDEP) soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent soil cleanup criteria of 1,000 mg/kg TPHC used by Fort Monmouth, at all of the former test trench locations. No further action is proposed with regard to the test trench locations.

1.0 EXPLORATORY ACTIVITIES IN AREAS WITH SUSPECTED UNDERGROUND STORAGE TANKS

During the fall of 1997 and winter 1998, exploratory test trenches were excavated at several dozen areas where USTs were suspected to be located at the Camp Evans area of the U.S. Army Fort Monmouth, Wall Township, New Jersey.

The exploratory test trenches were performed in accordance with the Site Assessment section of the Fort Monmouth UST Management Plan (S.O.P. Number 19), which had previously been approved by the NJDEP. The signed site assessment summary form for the exploratory test trench activities is included in Appendix A.

Based on an inspection of the test trenches, field screening of subsurface soil, and soil sample analytical results, it appears that no significant historical discharges are associated with the majority of the test trench locations. However, evidence of historical discharges was observed at Building 9004 (beneath the location of a former aboveground storage tank [AST] and Building 9090 (at the location of a former UST that had previously been removed).

This report was prepared based on information collected at the time that the exploratory test trenches were excavated. Section 1 of this report provides a site description and summarizes exploratory trenching activities in areas of suspected USTs. Section 2 describes the exploratory investigation activities, including field screening and soil sampling. Section 3 presents the post-excavation soil sampling results. Conclusions and recommendations are presented in Section 4 of this report.

1.1 SITE DESCRIPTION

The Camp Evans area of the Fort Monmouth Army Base is located in Wall Township, Monmouth County, New Jersey as shown in Figure 1. Site maps are provided in Figures 1 through 50 showing the location of the suspected UST exploratory test trenches and Geoprobe/Hand Collection samples (for future ASTs) relative to the buildings at the Camp Evans area.

1.2 TEST TRENCHING IN AREAS WITH SUSPECTED UNDERGROUND STORAGE TANKS

Exploratory test trenches were excavated at locations where:

- USTs were suspected based on visual observations of possible fill ports or unknown copper tubing in the boiler/furnace rooms
- Buildings that had ASTs at the time the test trenches were excavated and may also have had USTs in the past
- Evidence of past excavations were noted around the buildings
- Old mapping of the Evans area indicated the presence of tanks in the past

The test trenches were excavated at one or more locations around various buildings in the Camp Evans area. In addition, samples were collected where excavations were performed for AST pads/foundations. The soils were observed and logged by the Tetra Tech site manager and the SMC subsurface evaluator. Appendix B provides photographs of several test trench locations. Soil in the excavations was screened visually and with a photoionization detector (PID) and flame ionization detector (FID) for evidence of contamination. No evidence of contamination was observed in the majority of the test trenches; however, visual and instrument evidence of contamination was observed at the following buildings: 9004, 9057, 9089, 9090, and 9110. Evidence of significant contamination from historical discharges was observed at Building 9004 (beneath a former AST location) and Building 9090 (where a UST had previously been removed in 1991). At the remainder of the above-mentioned building, the contamination appeared to have been the result of minor leaks and/or spills at the former tank locations rather than major discharges.

1.3 MANAGEMENT OF EXCAVATED SOILS

Post-excavation soil sampling locations are shown in Figures 1 through 50 and discussed in Section 2.2. Based on PID/FID air monitoring results and TPHC results from post-excavation soil samples, the majority of the test trench soils were not contaminated. Soil that was found to be contaminated by visual observations and PID/FID readings was removed to the staging area for disposal off site at a later date, and clean excavated soil and/or imported clean fill were used to backfill the excavation.

2.0 SITE INVESTIGATION ACTIVITIES

In accordance with NJDEP's "Technical Requirements for Site Remediation" and "Field Sampling Procedures Manual," Tetra Tech and SMC personnel conducted the exploratory test trench site assessments. The site investigations were managed by Tetra Tech and performed by SMC. All analyses were performed and results reported by the U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory operated by TECOM-Vinnell Services, Inc. (TVS). All sampling was performed under the direct supervision of a NJDEP-certified subsurface evaluator in accordance with methods described in NJDEP's "Field Sampling Procedures Manual" dated 1992. Sampling frequency and parameters analyzed complied with applicable regulations at the date that the exploratory test trenching was performed. All records of site investigation activities are maintained by Tetra Tech and the Fort Monmouth Department of Public Works (DPW) Environmental Office.

The following parties participated in the suspected UST exploratory activities:

- Subsurface Evaluator (prior to 10/27/97): David H. Daniels
Employer: SMC Environmental Services Group
Telephone No.: (215) 788-7844
NJDEP Certification No.: 0010279
- Subsurface Evaluator (after 10/28/97): Kevin J. Phelan
Employer: Tetra Tech EM Inc.
Telephone No.: (973) 983-0507
NJDEP Certification No.: 0018436
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Telephone No.: (732) 532-4359
NJDEP Company Certification No.: 13461

2.1 FIELD SCREENING/MONITORING

Visual screening and field screening using a PID/FID were performed by a NJDEP-certified subsurface evaluator to identify potentially contaminated material. The majority of the soils excavated from the test trenches did not exhibit evidence of potential contamination at the time that the excavations were performed. Any soil that did exhibit indications of contamination was removed and transported to the soil staging area.

2.2 SOIL SAMPLING

After the excavation of a test trench was completed, a post-excavation soil sample was collected from the bottom of the excavation to confirm the presence or absence of TPHC contamination. Post-excavation samples were also collected if an area of possible soil staining or high PID/FID readings was observed. The depth of the samples varied between 5.0 and 7.0 feet below ground surface (bgs). All samples were analyzed for TPHC and total solids. After sample collection was completed and laboratory results indicated no contamination, the excavation was backfilled.

At buildings 9004, 9057, 9089, 9090, and 9110, contamination was either observed during trenching or documented by the laboratory analytical results. As a result, Tetra Tech and SMC performed additional soil removal/remediation and collected additional post-excavation soil samples. All samples were analyzed for TPHC and total solids. In addition, Tetra Tech performed three Geoprobe borings adjacent to the location of sample 9090W on November 8, 2000 at Building 9090 and collected samples for TPHC, volatile organic compounds (VOCs), and total solids. The samples were collected because no further soil could be removed without undermining a six-inch diameter water main.

Post-excavation soil samples were collected in accordance with standard sampling procedures specified in NJDEP's "Field Sampling Procedures Manual" dated 1992. Samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory in Fort Monmouth, New Jersey, for analysis. A summary of post-excavation sampling activities, including parameters analyzed for, is provided in Table 1.

3.0 SOIL SAMPLING RESULTS

To evaluate soil conditions at locations suspected of containing USTs at one time or another, post-excavation soil samples were collected from several dozen test trenches during the fall of 1997 and winter of 1998. All samples were analyzed for TPHC and total solids. In addition, samples were collected for VOC and BNA analysis where further soil removal would not be possible without undermining structures or utilities. Post-excavation sampling results were compared to the NJDEP residential direct contact soil cleanup criterion of 10,000 mg/kg for total organic contaminants (N.J.A.C. 7:26D and revisions dated February 3, 1994) and the more stringent soil cleanup criterion of 1,000 mg/kg TPHC used by Fort Monmouth. A summary of the analytical results and comparison to the

NJDEP soil cleanup criterion is provided in Table 2. Soil sampling locations are shown in Figure 4. The analytical data package is provided in Appendix C.

The majority of the post-excavation soil samples collected from the exploratory test trenches revealed results below the NJDEP and Fort Monmouth soil cleanup criterion. The remainder of the samples, which were collected from Buildings 9004, 9057, 9089, 9090, and 9110, exceeded the soil cleanup criterion and required additional soil removal/remediation. After further soil removal/remediation and a second round of post-excavation soil sampling had been performed, the analytical results of the above-mentioned areas revealed concentrations of TPHC below the soil cleanup criterion, with the exception of test trench TP-9090. The analytical results from the western side of the excavation revealed a TPHC concentration of 2,122.06 mg/kg (further excavation could not be performed at the time due to a stormwater drainage pipe which also ran along the western side of the excavation). As a result, three Geoprobe borings were performed and the analytical results were below the NJDEP soil cleanup criteria.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results for the majority of the post-excavation soil samples collected from the exploratory test trenches were below the NJDEP soil cleanup criterion for required VOC analysis. At the remainder of the test trench and Geoprobe locations, VOC and BNA results were below method detection limits.

Based on post-excavation sampling results, soil containing TPHC concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg, or the more stringent Fort Monmouth soil cleanup criterion of 1,000 mg/kg TPHC, do not exist in the test trench locations or Geoprobe locations. Therefore, no further action is proposed with regard to the test trench locations, Geoprobe, or AST locations.

Legend of Sample Identifications
Camp Evans Area
Wall Township, New Jersey

B	Sample from the bottom of the excavation
W	Samples from the west sidewall of the excavation
E	Samples from the east sidewall of the excavation
N	Samples from the north sidewall of the excavation
S	Samples from the south sidewall of the excavation
RF	Sample from beneath the former location of the return/feed lines of the UST
VL	Sample from beneath the former location of the vent line to the UST
OBS	Sample from the overburden soil pile of a UST excavation to determine if the soil can be used as backfill or must be transported to the contaminated soil stockpile
N21	Sample collected from the north sidewall on the second day of sampling (from a particular UST excavation) first sample (from that particular sidewall or area of the excavation) (NOTE: The "21" designation can be used with any of the letter combinations listed above).
FPS	Soil located directly adjacent to the fill port of the tank ("Fill Port Soil").
BFP	Soil located beneath the fill port of the tank ("Beneath Fill Port")
9116CSP	Contaminated soil pile from the UST-9116 excavation
DS	Deep Sample
9196BE1A	Geoprobe boring performed on the east side of the UST-9196 excavation to investigate contamination from the leaking UST. Last number denotes the boring number and last letter indicates which sample in the sequence.
RFL/B6	Sample from remedial excavation of a leaking remote fill line/what area of the excavation the sample was collected.
RF(CT)	Samples was collected from return feed lines consisting of copper tubing.
RFL(2)	Samples collected from a second remote fill line for a particular UST excavation
RB1	Remedial excavation for a particular building. The second letter and number designate the particular area of the excavation where the sample was collected
CNFRM	Confirmatory sample to confirm that contamination has been removed
CNFM	Another designation for a confirmatory sample
R/F/VL	Return/feed/vent lines. Used at buildings where the return/feed lines and the vent lines were located close together and one sample could be collected for both lines
SCNT1	Sample collected at a location of suspected contamination
(W)E1	Sample collected from the eastern sidewall of the western half of the excavation (remedial excavation).
TP	Test pit/trench
HWAB	Hazardous waste area building (former location)
AST	Above ground storage tank
9105ASTB1	Sample collected at the former location of an AST at the specified building
DEL	Delineation sample to document the extent of contamination
SD	Sample collected from a storm drain
SW	Sample collected from a sidewall of a remedial excavation
CTR	Copper tubing run
CSP-1	Clean soil pile

Table 1
 Summary of Post-Excavation Sampling Activities
 Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
TP9059	8/28/97	9/3/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9006	8/29/97	9/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9092	8/29/97	9/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9030C	8/29/97	9/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9027	8/29/97	9/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9021	9/2/97	9/3/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9019	9/2/97	9/3/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9392	9/2/97	9/3/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9110A	9/2/97	9/3/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9110B	9/2/97	9/3/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9035	9/3/97	9/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9057A	9/3/97	9/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9057B	9/3/97	9/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9057C	9/3/97	9/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9105A	9/3/97	9/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9105B	9/3/97	9/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9043A	9/3/97	9/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9043B	9/3/97	9/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9043C	9/4/97	9/5/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9110C	9/4/97	9/5/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9023	9/4/97	9/5/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9100	9/4/97	9/5/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9041A	9/5/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9307	9/5/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPHWAB	9/5/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9087(A)	9/5/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9087(B)	9/5/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9041B	9/5/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9111A	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9111B	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9113A	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Table 1
 Summary of Post-Excavation Sampling Activities
 Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
TP9113B	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9113C	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9113D	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9004A	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9004B	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9005A	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9005B	9/8/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9061A	9/9/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9061B	9/9/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9061C	9/9/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9061D	9/9/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9061E	9/9/97	9/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9043D	9/23/97	9/24/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9043E	9/23/97	9/24/97	Soil	Post-Excavation	TPHC	EPA Method 8260
TP9043G	9/23/97	9/24/97	Soil	Post-Excavation	TPHC	EPA Method 8260
9019ASTB1	9/30/97	10/1/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9019ASTB2	9/30/97	10/1/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9019ASTS	9/30/97	10/1/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9019ASTE	9/30/97	10/1/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9019ASTN	9/30/97	10/1/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9019ASTW	9/30/97	10/1/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9105ASTB1	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9105ASTB2	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9105ASTN	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9105ASTE	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9105ASTS	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9105ASTW	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9110ASTB1	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9110ASTB2	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9110ASTN	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9110ASTE	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Table 1
 Summary of Post-Excavation Sampling Activities
 Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9110ASTS	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9110ASTW	10/14/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9061ASTB1	10/15/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9061ASTB2	10/15/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9061ASTN	10/15/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9061ASTW	10/15/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9061ASTS	10/15/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9061ASTE	10/15/97	10/16/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004DEL1	10/24/97	10/25/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004B1	10/24/97	10/25/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004B2	10/24/97	10/25/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004B3	10/24/97	10/25/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004SD1	10/24/97	10/25/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004SW1	10/24/97	10/25/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004SW2	10/24/97	10/25/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004SW3	10/24/97	10/25/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004SW4	10/24/97	10/25/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004SW5	10/28/97	10/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9004SW6	10/28/97	10/29/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(A)A1	12/3/97	12/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(A)A2	12/3/97	12/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(B)B1	12/3/97	12/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(B)B2	12/3/97	12/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(C)C1	12/3/97	12/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(D)D1	12/3/97	12/4/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9090OBS1	12/9/97	12/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9090OBS2	12/9/97	12/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9090E1	12/9/97	12/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9090E2	12/9/97	12/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9090B1	12/10/97	12/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9090B2	12/10/97	12/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Table 1
 Summary of Post-Excavation Sampling Activities
 Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9090W	12/10/97	12/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9090E3	12/10/97	12/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9090N	12/10/97	12/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9090S	12/10/97	12/11/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(A)A1	12/19/97	12/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(A)A2	12/19/97	12/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(A)A3	12/19/97	12/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9091(A)A4	12/19/97	12/22/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089(W)A	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089(W)B	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089(W)C	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CTR1	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CTR2	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CTR3	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CTR4	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CTR5	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CTR6	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CTR7	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CTR8	3/2/98	3/3/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPW.A.(A)1	3/10/98	3/18/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPW.A.(A)2	3/10/98	3/18/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPW.A.(B)1	3/10/98	3/18/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPW.A.(B)2	3/10/98	3/18/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPW.A.(C)1	3/10/98	3/18/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TPW.A.(C)2	3/10/98	3/18/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089B1	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089B2	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CNFRM1	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089B3	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089B4	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089N	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Table 1
 Summary of Post-Excavation Sampling Activities
 Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9089S	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089E	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089W	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CNFRM2	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
9089CNFRM3	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9089(UST1)	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9089(UST2)	3/13/98	3/16/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9015A	3/25/98	3/26/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9015B	3/25/98	3/26/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
TP9015C	3/25/98	3/26/98	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Table 2
Post-Excavation Soil Sampling Results
Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
Camp Evans Area
Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
TP9059	2941.01	8/28/97	9/3/97	TPHC	164	ND	10,000	No
TP9006	2946.01	8/29/97	9/2 - 3/97	TPHC	165	ND	10,000	No
TP9092	2946.02	8/29/97	9/2 - 3/97	TPHC	191	ND	10,000	No
TP9030C	2946.03	8/29/97	9/2 - 3/97	TPHC	172	ND	10,000	No
TP9027	2946.04	8/29/97	9/2 - 3/97	TPHC	159	ND	10,000	No
TP9021	2948.01	9/2/97	9/3 - 4/97	TPHC	161	ND	10,000	No
TP9019	2948.02	9/2/97	9/3 - 4/97	TPHC	161	ND	10,000	No
TP9392	2948.03	9/2/97	9/3 - 4/97	TPHC	154	ND	10,000	No
TP9110A	2948.04	9/2/97	9/3 - 4/97	TPHC	158	ND	10,000	No
TP9110B	2948.05	9/2/97	9/3 - 4/97	TPHC	171	10,769.86	10,000	Yes
TP9035	2958.01	9/3/97	9/4 - 5/97	TPHC	181	ND	10,000	No
TP9057A	2958.02	9/3/97	9/4 - 5/97	TPHC	166	5,318.29	10,000	Yes
TP9057B	2958.03	9/3/97	9/4 - 5/97	TPHC	165	4,550.56	10,000	Yes
TP9057C	2958.04	9/3/97	9/4 - 5/97	TPHC	173	ND	10,000	No
TP9105A	2958.05	9/3/97	9/4 - 5/97	TPHC	168	973.73	10,000	No
TP9105B	2958.06	9/3/97	9/4 - 5/97	TPHC	162	ND	10,000	No
TP9043A	2958.07	9/3/97	9/4 - 5/97	TPHC	159	ND	10,000	No
TP9043B	2958.08	9/3/97	9/4 - 5/97	TPHC	164	ND	10,000	No
TP9043C	2963.01	9/4/97	9/5/97	TPHC	192	ND	10,000	No
TP9110C	2963.02	9/4/97	9/5/97	TPHC	186	ND	10,000	No
TP9023	2963.03	9/4/97	9/5/97	TPHC	161	ND	10,000	No
TP9100	2963.04	9/4/97	9/5/97	TPHC	158	ND	10,000	No
TP9041A	2968.01	9/5/97	9/10/97	TPHC	182	ND	10,000	No
TP9307	2968.03	9/5/97	9/10/97	TPHC	158	ND	10,000	No
TPHWAB	2968.04	9/5/97	9/10/97	TPHC	168	ND	10,000	No
TP9087(A)	2968.05	9/5/97	9/10/97	TPHC	169	ND	10,000	No
TP9087(B)	2968.06	9/5/97	9/10/97	TPHC	155	ND	10,000	No
TP9041B	2968.07	9/5/97	9/10/97	TPHC	176	ND	10,000	No
TP9111A	2972.01	9/8/97	9/10 - 12/97	TPHC	158	ND	10,000	No
TP9111B	2972.02	9/8/97	9/10 - 12/97	TPHC	178	ND	10,000	No

Notes:

- * Tetra Tech EM Inc. used the NJDEP limit of 10,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
 ND Not detected
 TPHC Total petroleum hydrocarbons

Table 2
 Post-Excavation Soil Sampling Results
 Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
TP9113A	2972.03	9/8/97	9/10 - 12/97	TPHC	165	244.94	10,000	No
TP9113B	2972.04	9/8/97	9/10 - 12/97	TPHC	150	ND	10,000	No
TP9113C	2972.05	9/8/97	9/10 - 12/97	TPHC	155	ND	10,000	No
TP9113D	2972.06	9/8/97	9/10 - 12/97	TPHC	147	221.94	10,000	No
TP9004A	2972.07	9/8/97	9/10 - 12/97	TPHC	163	476.18	10,000	No
TP9004B	2972.08	9/8/97	9/10 - 12/97	TPHC	238	1,288.66	10,000	No
TP9005A	2972.09	9/8/97	9/10 - 12/97	TPHC	176	261.34	10,000	No
TP9005B	2972.10	9/8/97	9/10 - 12/97	TPHC	168	268.41	10,000	No
TP9061A	2974.01	9/9/97	9/10 - 12/97	TPHC	157	889.01	10,000	No
TP9061B	2974.02	9/9/97	9/10 - 12/97	TPHC	167	ND	10,000	No
TP9061C	2974.03	9/9/97	9/10 - 12/97	TPHC	173	ND	10,000	No
TP9061D	2974.04	9/9/97	9/10 - 12/97	TPHC	165	ND	10,000	No
TP9061E	2974.05	9/9/97	9/10 - 12/97	TPHC	164	ND	10,000	No
TP9043D	3010.09	9/23/97	9/24 - 25/97	TPHC	157	174.87	10,000	No
TP9043E	3010.10	9/23/97	9/24 - 25/97	VOC	Various	ND	10,000	No
TP9043G	3010.12	9/23/97	9/24 - 25/97	VOC	Various	ND	10,000	No
9019ASTB1	3019.05	9/30/97	10/1 - 2/97	TPHC	156	ND	10,000	No
9019ASTB2	3019.06	9/30/97	10/1 - 2/97	TPHC	160	ND	10,000	No
9019ASTS	3019.07	9/30/97	10/1 - 2/97	TPHC	183	ND	10,000	No
9019ASTE	3019.08	9/30/97	10/1 - 2/97	TPHC	174	ND	10,000	No
9019ASTN	3019.09	9/30/97	10/1 - 2/97	TPHC	173	ND	10,000	No
9019ASTW	3019.10	9/30/97	10/1 - 2/97	TPHC	181	ND	10,000	No
9105ASTB1	3066.01	10/14/97	10/16 - 18/97	TPHC	172	ND	10,000	No
9105ASTB2	3066.02	10/14/97	10/16 - 18/97	TPHC	176	308.50	10,000	No
9105ASTN	3066.03	10/14/97	10/16 - 18/97	TPHC	175	ND	10,000	No
9105ASTE	3066.04	10/14/97	10/16 - 18/97	TPHC	165	ND	10,000	No
9105ASTS	3066.05	10/14/97	10/16 - 18/97	TPHC	164	ND	10,000	No
9105ASTW	3066.06	10/14/97	10/16 - 18/97	TPHC	162	ND	10,000	No
9110ASTB1	3067.01	10/14/97	10/16 - 18/97	TPHC	159	ND	10,000	No
9110ASTB2	3067.02	10/14/97	10/16 - 18/97	TPHC	163	ND	10,000	No

Notes:

- * Tetra Tech EM Inc. used the NJDEP limit of 10,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
- ND Not detected
- TPHC Total petroleum hydrocarbons

Table 2
 Post-Excavation Soil Sampling Results
 Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9110ASTN	3067.03	10/14/97	10/16 - 18/97	TPHC	170	ND	10,000	No
9110ASTE	3067.04	10/14/97	10/16 - 18/97	TPHC	161	ND	10,000	No
9110ASTS	3067.05	10/14/97	10/16 - 18/97	TPHC	168	ND	10,000	No
9110ASTW	3067.06	10/14/97	10/16 - 18/97	TPHC	158	ND	10,000	No
9061ASTB1	3068.01	10/15/97	10/16 - 18/97	TPHC	166	ND	10,000	No
9061ASTB2	3068.02	10/15/97	10/16 - 18/97	TPHC	169	ND	10,000	No
9061ASTN	3068.03	10/15/97	10/16 - 18/97	TPHC	170	ND	10,000	No
9061ASTW	3068.04	10/15/97	10/16 - 18/97	TPHC	168	ND	10,000	No
9061ASTS	3068.05	10/15/97	10/16 - 18/97	TPHC	165	ND	10,000	No
9061ASTE	3068.06	10/15/97	10/16 - 18/97	TPHC	162	205.20	10,000	No
9004DEL1	3106.01	10/24/97	10/25/97	TPHC	217	1,756.63	10,000	Yes
9004B1	3106.03	10/24/97	10/25/97	TPHC	180	ND	10,000	No
9004B2	3106.04	10/24/97	10/25/97	TPHC	185	ND	10,000	No
9004B3	3106.05	10/24/97	10/25/97	TPHC	237	340.63	10,000	No
9004SD1	3106.06	10/24/97	10/25/97	TPHC	187	237.68	10,000	No
9004SW1	3106.08	10/24/97	10/25/97	TPHC	183	257.27	10,000	No
9004SW2	3106.09	10/24/97	10/25/97	TPHC	186	1,222.32	10,000	Yes
9004SW3	3106.10	10/24/97	10/25/97	TPHC	193	247.19	10,000	No
9004SW4	3106.11	10/24/97	10/25/97	TPHC	185	214.44	10,000	No
9004SW5	3112.01	10/28/97	10/29/97	TPHC	194	266.86	10,000	No
9004SW6	3112.02	10/28/97	10/29/97	TPHC	189	272.50	10,000	No
9091(A)A1	3194.13	12/3/97	12/4 - 5/97	TPHC	179	902.43	10,000	No
9091(A)A2	3194.14	12/3/97	12/4 - 5/97	TPHC	171	ND	10,000	No
9091(B)B1	3194.15	12/3/97	12/4 - 5/97	TPHC	154	ND	10,000	No
9091(B)B2	3194.16	12/3/97	12/4 - 5/97	TPHC	192	ND	10,000	No
9091(C)C1	3194.17	12/3/97	12/4 - 5/97	TPHC	160	ND	10,000	No
9091(D)D1	3194.18	12/3/97	12/4 - 5/97	TPHC	161	ND	10,000	No
9090OBS1	3206.08	12/9/97	12/10 - 11/97	TPHC	177	244.42	10,000	No
9090OBS2	3206.09	12/9/97	12/10 - 11/97	TPHC	167	228.92	10,000	No
9090E1	3217.01	12/9/97	12/11 - 12/97	TPHC	170	ND	10,000	No

Notes:

- * Tetra Tech EM Inc. used the NJDEP limit of 10,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
 ND Not detected
 TPHC Total petroleum hydrocarbons

Table 2
 Post-Excavation Soil Sampling Results
 Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9090E2	3217.02	12/9/97	12/11 - 12/97	TPHC	183	10,886.11	10,000	Yes
9090B1	3217.03	12/10/97	12/11 - 12/97	TPHC	166	ND	10,000	No
9090B2	3217.04	12/10/97	12/11 - 12/97	TPHC	156	ND	10,000	No
9090W	3217.05	12/10/97	12/11 - 12/97	TPHC	157	2,122.06	10,000	Yes
9090E3	3217.06	12/10/97	12/11 - 12/97	TPHC	162	ND	10,000	No
9090N	3217.07	12/10/97	12/11 - 12/97	TPHC	157	ND	10,000	No
9090S	3217.08	12/10/97	12/11 - 12/97	TPHC	158	ND	10,000	No
9091(A)A3	3249.07	12/19/97	12/22 - 23/97	TPHC	162	ND	10,000	No
9091(A)A4	3249.08	12/19/97	12/22 - 23/97	TPHC	164	ND	10,000	No
9091(A)A5	3249.09	12/19/97	12/22 - 23/97	TPHC	160	ND	10,000	No
9091(A)A6	3249.10	12/19/97	12/22 - 23/97	TPHC	163	ND	10,000	No
9089(W)A	3379.01	3/2/98	3/3 - 4/98	TPHC	156	ND	10,000	No
9089(W)B	3379.02	3/2/98	3/3 - 4/98	TPHC	183	ND	10,000	No
9089(W)C	3379.03	3/2/98	3/3 - 4/98	TPHC	180	ND	10,000	No
9089CTR1	3379.04	3/2/98	3/3 - 4/98	TPHC	184	2,823.87	10,000	Yes
9089CTR2	3379.05	3/2/98	3/3 - 4/98	TPHC	177	ND	10,000	No
9089CTR3	3379.06	3/2/98	3/3 - 4/98	TPHC	181	ND	10,000	No
9089CTR4	3379.07	3/2/98	3/3 - 4/98	TPHC	178	ND	10,000	No
9089CTR5	3379.08	3/2/98	3/3 - 4/98	TPHC	176	ND	10,000	No
9089CTR6	3379.09	3/2/98	3/3 - 4/98	TPHC	176	ND	10,000	No
9089CTR7	3379.10	3/2/98	3/3 - 4/98	TPHC	173	ND	10,000	No
9089CTR8	3379.11	3/2/98	3/3 - 4/98	TPHC	173	196.06	10,000	No
TPW.A.(A)1	3400.01	3/10/98	3/18/98	TPHC	163	ND	10,000	No
TPW.A.(A)2	3400.02	3/10/98	3/18/98	TPHC	163	ND	10,000	No
TPW.A.(B)1	3400.03	3/10/98	3/18/98	TPHC	160	ND	10,000	No
TPW.A.(B)2	3400.04	3/10/98	3/18/98	TPHC	160	ND	10,000	No
TPW.A.(C)1	3400.05	3/10/98	3/18/98	TPHC	176	ND	10,000	No
TPW.A.(C)2	3400.06	3/10/98	3/18/98	TPHC	176	ND	10,000	No
9089B1	3409.01	3/13/98	3/16 - 17/98	TPHC	186	810.71	10,000	No
9089B2	3409.02	3/13/98	3/16 - 17/98	TPHC	173	ND	10,000	No

Notes:

- * Tetra Tech EM Inc. used the NJDEP limit of 10,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
 ND Not detected
 TPHC Total petroleum hydrocarbons

Table 2
 Post-Excavation Soil Sampling Results
 Exploratory/Remedial Test Pits for Suspected USTs/Former ASTs
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9089CNFRM1	3409.03	3/13/98	3/16 - 17/98	TPHC	177	ND	10,000	No
9089B3	3409.04	3/13/98	3/16 - 17/98	TPHC	165	ND	10,000	No
9089B4	3409.05	3/13/98	3/16 - 17/98	TPHC	164	ND	10,000	No
9089N	3409.06	3/13/98	3/16 - 17/98	TPHC	179	ND	10,000	No
9089S	3409.07	3/13/98	3/16 - 17/98	TPHC	178	ND	10,000	No
9089W	3409.08	3/13/98	3/16 - 17/98	TPHC	167	ND	10,000	No
9089E	3409.09	3/13/98	3/16 - 17/98	TPHC	161	ND	10,000	No
9089CNFRM2	3409.10	3/13/98	3/16 - 17/98	TPHC	173	ND	10,000	No
9089CNFRM3	3409.11	3/13/98	3/16 - 17/98	TPHC	184	ND	10,000	No
TP9089(UST1)	3409.12	3/13/98	3/16 - 17/98	TPHC	173	ND	10,000	No
TP9089(UST2)	3409.13	3/13/98	3/16 - 17/98	TPHC	181	ND	10,000	No
TP9015A	3433.01	3/25/98	3/26/98	TPHC	175	454.54	10,000	No
TP9015B	3433.02	3/25/98	3/26/98	TPHC	172	509.70	10,000	No
TP9015C	3433.03	3/25/98	3/26/98	TPHC	175	567.84	10,000	No

Notes:

- * Tetra Tech EM Inc. used the NJDEP limit of 10,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
 ND Not detected
 TPHC Total petroleum hydrocarbons

Table 1
 Summary of Geoprobe/Hand Collection Sampling Activities (for New ASTs)
 Camp Evans Area
 Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9019A1	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019A2	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019B1	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019B2	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019B3	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019B4	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019C1	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019C2	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019C3	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019D1	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9019D2	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9392A1	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9392A2	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9392B1	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9392B2	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9392C1	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9392C2	9/29/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9045A1	9/30/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9045B1	9/30/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9045C1	9/30/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9003A1	9/30/97	10/1/97	Soil	Core	TPHC	OQA-QAM-025
9392D1	10/2/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9307A1	10/2/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9307A2	10/2/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9196BE1A	10/3/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9196BE1B	10/3/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9196BE1C	10/3/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9196BE1D	10/3/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9196BE1E	10/3/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9196BE1F	10/3/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Summary of Geoprobe/Hand Collection Sampling Activities (for New ASTs)
Camp Evans Area
Wall Township, New Jersey

Sample ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
9059A1	10/3/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9059A2	10/3/97	10/6/97	Soil	Core	TPHC	OQA-QAM-025
9014AST1	10/8/97	10/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9014AST2	10/8/97	10/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307AST1	10/8/97	10/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9307AST2	10/8/97	10/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9019AST1	10/9/97	10/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
9019AST2	10/9/97	10/10/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
BL9064B1	10/29/97	10/29/97	Soil	Core	TPHC	OQA-QAM-025
BL9064B2	10/29/97	10/29/97	Soil	Core	TPHC	OQA-QAM-025
BL9064B3	10/29/97	10/29/97	Soil	Core	TPHC	OQA-QAM-025
BL9041B1	10/29/97	10/29/97	Soil	Core	TPHC	OQA-QAM-025
BL9041B2	10/29/97	10/29/97	Soil	Core	TPHC	OQA-QAM-025
BL9041B3	10/29/97	10/29/97	Soil	Core	TPHC	OQA-QAM-025
BL9033B2	10/29/97	10/29/97	Soil	Core	TPHC	OQA-QAM-025
9116B1	10/30/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9001B1	10/30/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9012B1	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9012B2	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9028B1	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9028B2	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9038B1	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9038B1A	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9038B2	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9038B3	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9038B4	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9038B5	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9038B6	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
9012B3	10/31/97	11/3/97	Soil	Core	TPHC	OQA-QAM-025
CSP1	1/22/98	1/26/98	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total petroleum hydrocarbons

Geoprobe/Hand Collection Sampling Results (for new ASTs)
Camp Evans Area
Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9019A1	3018.01	9/29/97	10/1 - 2/97	TPHC	180	ND	1,000	No
9019A2	3018.02	9/29/97	10/1 - 2/97	TPHC	161	ND	1,000	No
9019B1	3018.03	9/29/97	10/1 - 2/97	TPHC	183	240.82	1,000	No
9019B2	3018.04	9/29/97	10/1 - 2/97	TPHC	161	ND	1,000	No
9019B3	3018.05	9/29/97	10/1 - 2/97	TPHC	173	ND	1,000	No
9019B4	3018.06	9/29/97	10/1 - 2/97	TPHC	155	ND	1,000	No
9019C1	3018.07	9/29/97	10/1 - 2/97	TPHC	177	1,582.52	1,000	Yes
9019C2	3018.08	9/29/97	10/1 - 2/97	TPHC	166	452.57	1,000	No
9019C3	3018.09	9/29/97	10/1 - 2/97	TPHC	167	ND	1,000	No
9019D1	3018.10	9/29/97	10/1 - 2/97	TPHC	163	ND	1,000	No
9019D2	3018.11	9/29/97	10/1 - 2/97	TPHC	178	ND	1,000	No
9392A1	3018.12	9/29/97	10/1 - 2/97	TPHC	185	ND	1,000	No
9392A2	3018.13	9/29/97	10/1 - 2/97	TPHC	160	ND	1,000	No
9392B1	3018.14	9/29/97	10/1 - 2/97	TPHC	189	ND	1,000	No
9392B2	3018.15	9/29/97	10/1 - 2/97	TPHC	154	ND	1,000	No
9392C1	3018.16	9/29/97	10/1 - 2/97	TPHC	154	ND	1,000	No
9392C2	3018.17	9/29/97	10/1 - 2/97	TPHC	152	ND	1,000	No
9045A1	3019.01	9/30/97	10/1 - 2/97	TPHC	157	ND	1,000	No
9045B1	3019.02	9/30/97	10/1 - 2/97	TPHC	170	ND	1,000	No
9045C1	3019.03	9/30/97	10/1 - 2/97	TPHC	161	195.91	1,000	No
9003A1	3019.04	9/30/97	10/1 - 2/97	TPHC	153	ND	1,000	No
9392D1	3028.01	10/2/97	10/6 - 8/97	TPHC	163	ND	1,000	No
9307A1	3028.02	10/2/97	10/6 - 8/97	TPHC	168	ND	1,000	No
9307A2	3028.03	10/2/97	10/6 - 8/97	TPHC	166	ND	1,000	No
9196BE1A	3031.01	10/3/97	10/6 - 8/97	TPHC	163	ND	1,000	No
9196BE1B	3031.02	10/3/97	10/6 - 8/97	TPHC	154	ND	1,000	No
9196BE1C	3031.03	10/3/97	10/6 - 8/97	TPHC	175	ND	1,000	No
9196BE1D	3031.04	10/3/97	10/6 - 8/97	TPHC	159	ND	1,000	No
9196BE1E	3031.05	10/3/97	10/6 - 8/97	TPHC	159	225.48	1,000	No
9196BE1F	3031.06	10/3/97	10/6 - 8/97	TPHC	170	246.34	1,000	No
9059A1	3031.13	10/3/97	10/6 - 8/97	TPHC	157	ND	1,000	No

Note:

- * Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
- ND Not detected
- TPHC Total petroleum hydrocarbons

Geoprobe/Hand Collection Sampling Results (for new ASTs)
Camp Evans Area
Wall Township, New Jersey

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date(s)	Analytical Method Used	Method Detection Limit (mg/kg)	Result (mg/kg)	NJDEP Soil Cleanup Criteria* (mg/kg)	Exceeds Cleanup Criteria
9059A2	3031.14	10/3/97	10/6 - 8/97	TPHC	154	ND	1,000	No
9014AST1	3057.01	10/8/97	10/10/97	TPHC	160	ND	1,000	No
9014AST2	3057.02	10/8/97	10/10/97	TPHC	165	ND	1,000	No
9307AST1	3057.03	10/8/97	10/10/97	TPHC	161	ND	1,000	No
9307AST2	3057.04	10/8/97	10/10/97	TPHC	172	ND	1,000	No
9019AST1	3058.01	10/9/97	10/10/97	TPHC	176	ND	1,000	No
9019AST2	3058.02	10/9/97	10/10/97	TPHC	173	ND	1,000	No
BL9064B1	3114.01	10/29/97	10/29 - 30/97	TPHC	154	ND	1,000	No
BL9064B2	3114.02	10/29/97	10/29 - 30/97	TPHC	177	ND	1,000	No
BL9064B3	3114.03	10/29/97	10/29 - 30/97	TPHC	157	ND	1,000	No
BL9041B1	3114.04	10/29/97	10/29 - 30/97	TPHC	155	ND	1,000	No
BL9041B2	3114.05	10/29/97	10/29 - 30/97	TPHC	155	ND	1,000	No
BL9041B3	3114.06	10/29/97	10/29 - 30/97	TPHC	168	ND	1,000	No
BL9033B2	3114.07	10/29/97	10/29 - 30/97	TPHC	157	ND	1,000	No
9116B1	3129.01	10/30/97	11/3 - 4/97	TPHC	154	ND	1,000	No
9001B1	3129.02	10/30/97	11/3 - 4/97	TPHC	179	ND	1,000	No
9012B1	3129.03	10/31/97	11/3 - 4/97	TPHC	158	ND	1,000	No
9012B2	3129.04	10/31/97	11/3 - 4/97	TPHC	161	ND	1,000	No
9028B1	3129.05	10/31/97	11/3 - 4/97	TPHC	181	ND	1,000	No
9028B2	3129.06	10/31/97	11/3 - 4/97	TPHC	159	ND	1,000	No
9038B1	3129.07	10/31/97	11/3 - 4/97	TPHC	175	ND	1,000	No
9038B1A	3129.08	10/31/97	11/3 - 4/97	TPHC	169	ND	1,000	No
9038B2	3129.09	10/31/97	11/3 - 4/97	TPHC	182	ND	1,000	No
9038B3	3129.10	10/31/97	11/3 - 4/97	TPHC	172	ND	1,000	No
9038B4	3129.11	10/31/97	11/3 - 4/97	TPHC	172	ND	1,000	No
9038B5	3129.12	10/31/97	11/3 - 4/97	TPHC	174	ND	1,000	No
9038B6	3129.13	10/31/97	11/3 - 4/97	TPHC	186	ND	1,000	No
9012B3	3129.14	10/31/97	11/3 - 4/97	TPHC	179	ND	1,000	No
CSP1	3295.14	1/22/98	1/26 - 27/98	TPHC	170	ND	1,000	No

Note:

- * Tetra Tech EM Inc. used the NJDEP limit of 1,000 ppm of TPHC before sampling for volatiles is required as a soil cleanup criteria.
 ND Not detected
 TPHC Total petroleum hydrocarbons




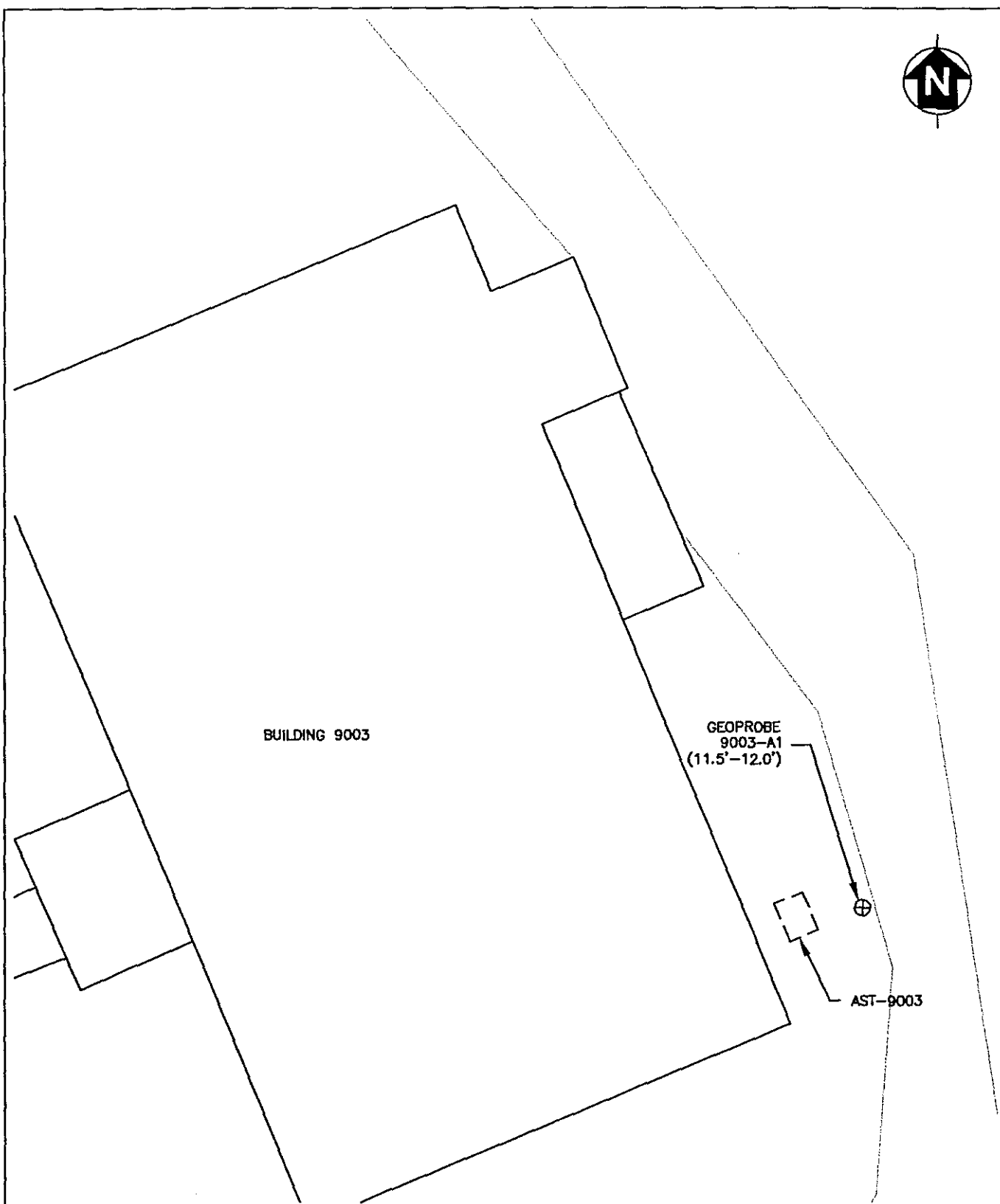
BUILDING 9001

AST-9001

9001-B1
(1.0'-4.0')



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 1 BUILDING 9001- GEOPROBE BORING LOCATION (FOR AST-9001)
 TETRA TECH EM INC.




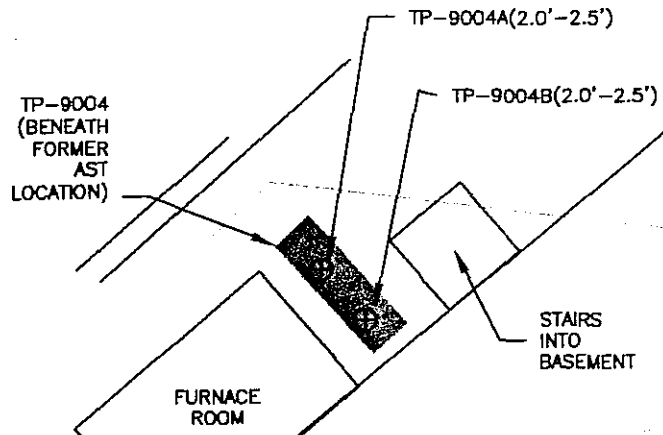
BUILDING 9003

GEOPROBE
9003-A1
(11.5'-12.0')

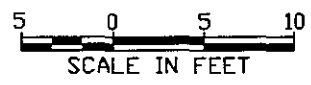
AST-9003




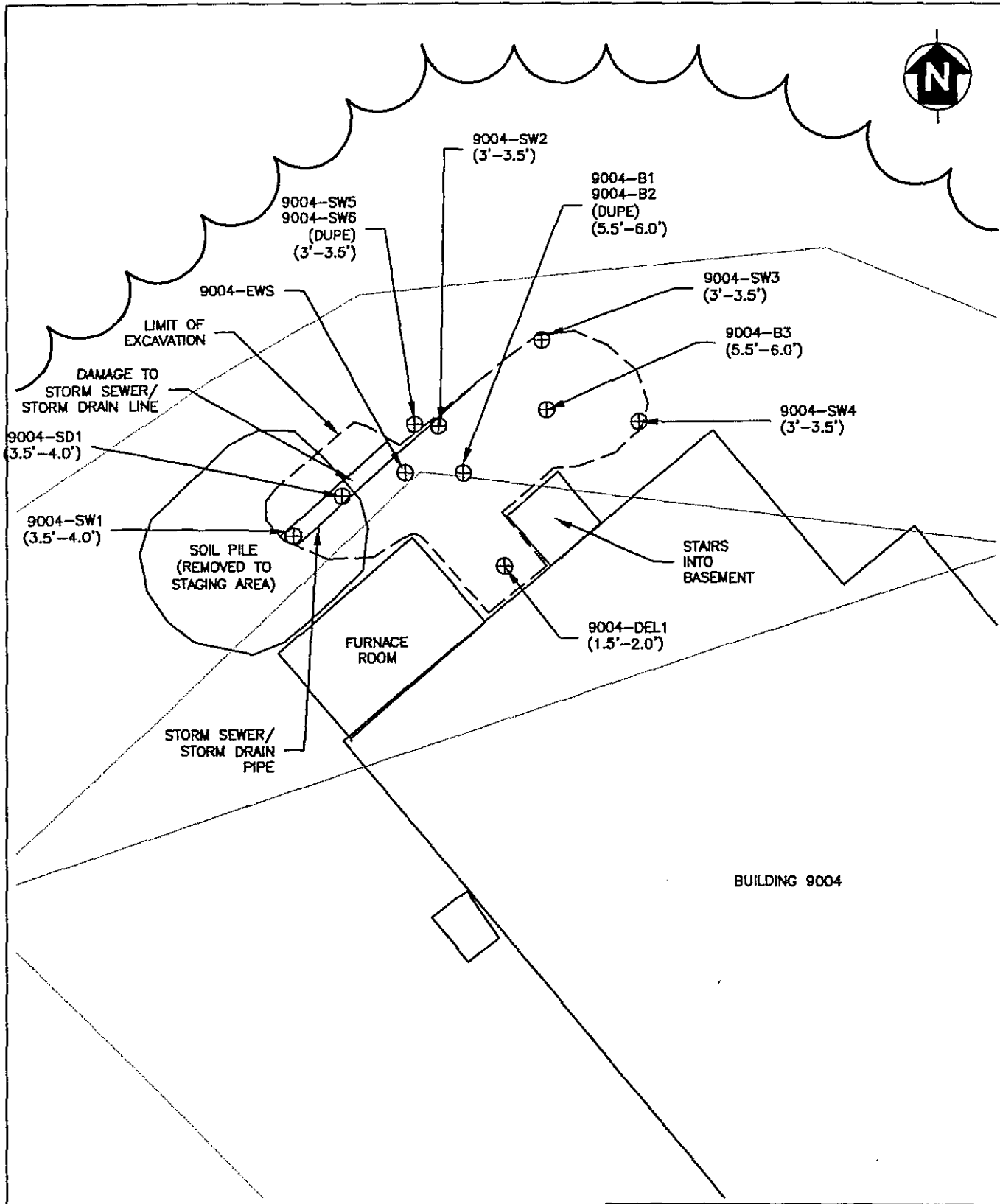
EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 2 BUILDING 9003- GEOPROBE LOCATION DIAGRAM
 TETRA TECH EM INC.




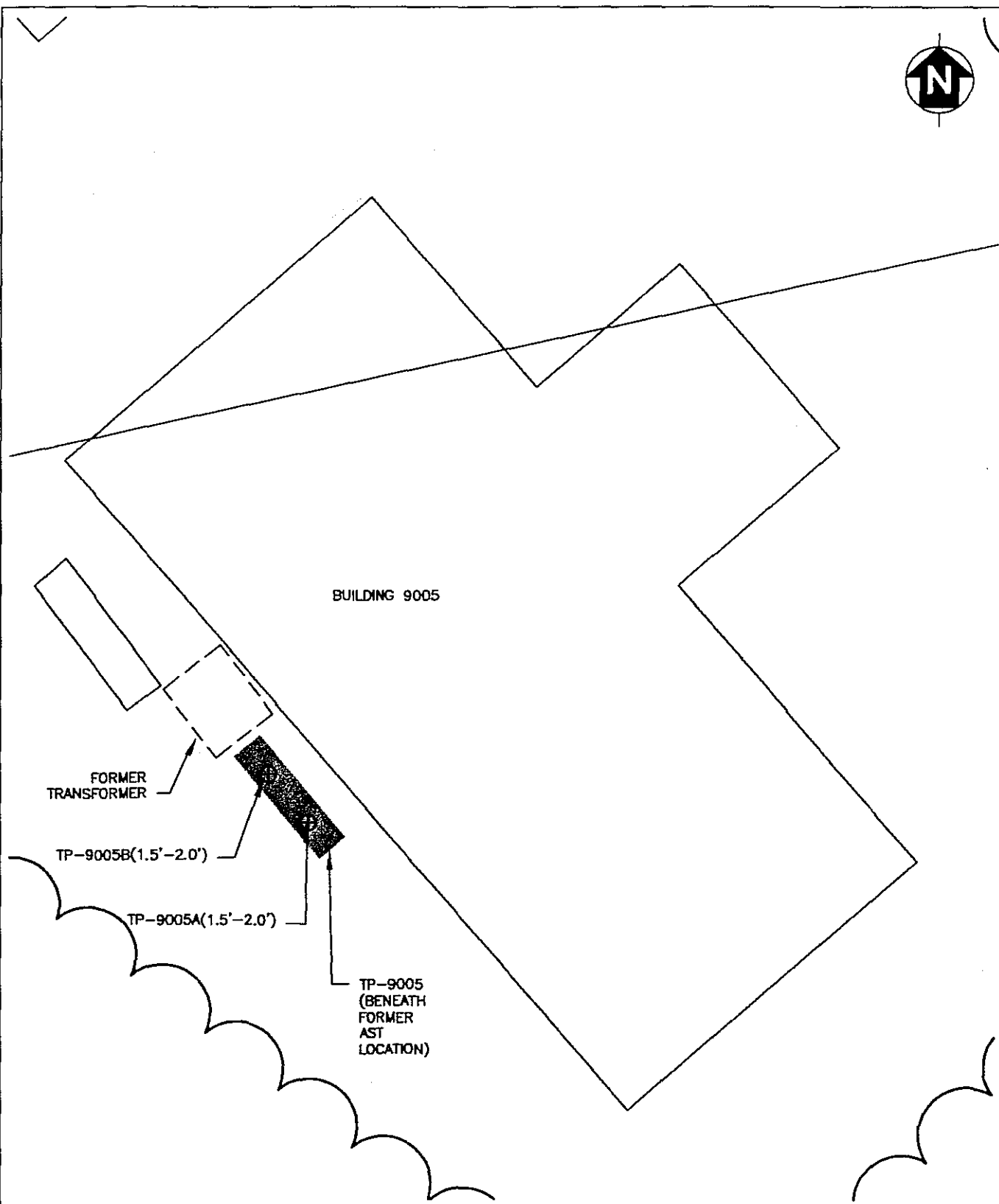
BUILDING 9004



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 3 BUILDING 9004 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 4
BUILDING 9004 - REMEDIAL EXCAVATION DIAGRAM
 TETRA TECH EM INC.



BUILDING 9005


FORMER
TRANSFORMER

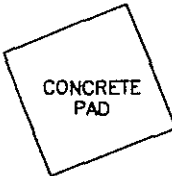
TP-9005B(1.5'-2.0')

TP-9005A(1.5'-2.0')

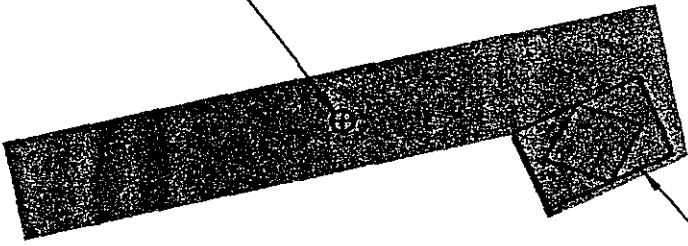
TP-9005
(BENEATH
FORMER
AST
LOCATION)



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 5 BUILDING 9005 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



TP-9006
(4.0'-4.5')




PEDESTAL
(REMOVED)

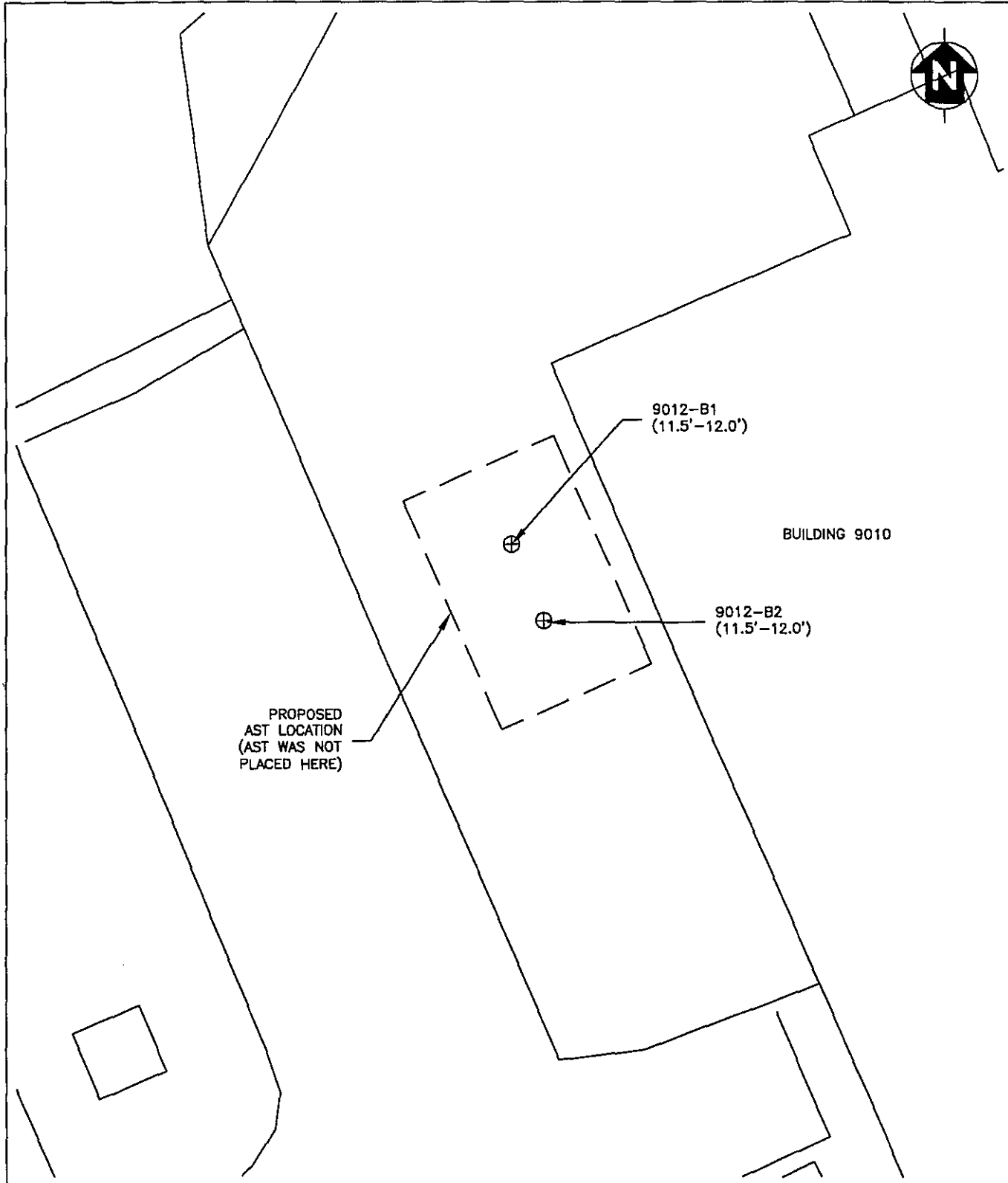
BUILDING
9081

BUILDING 9006

STAIRS



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 6 BUILDING 9006- TEST TRENCH DIAGRAM
 TETRA TECH EM INC.

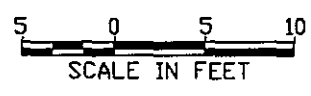


9012-B1
(11.5'-12.0')


BUILDING 9010

9012-B2
(11.5'-12.0')

PROPOSED
AST LOCATION
(AST WAS NOT
PLACED HERE)



SCALE IN FEET

EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 7 BUILDING 9012- GEOPROBE BORING LOCATION (FOR PROPOSED AST)
 TETRA TECH EM INC.



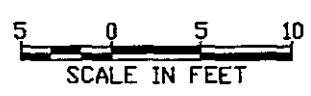
7


9014-AST1
9014-AST2
(4.0'-4.5')

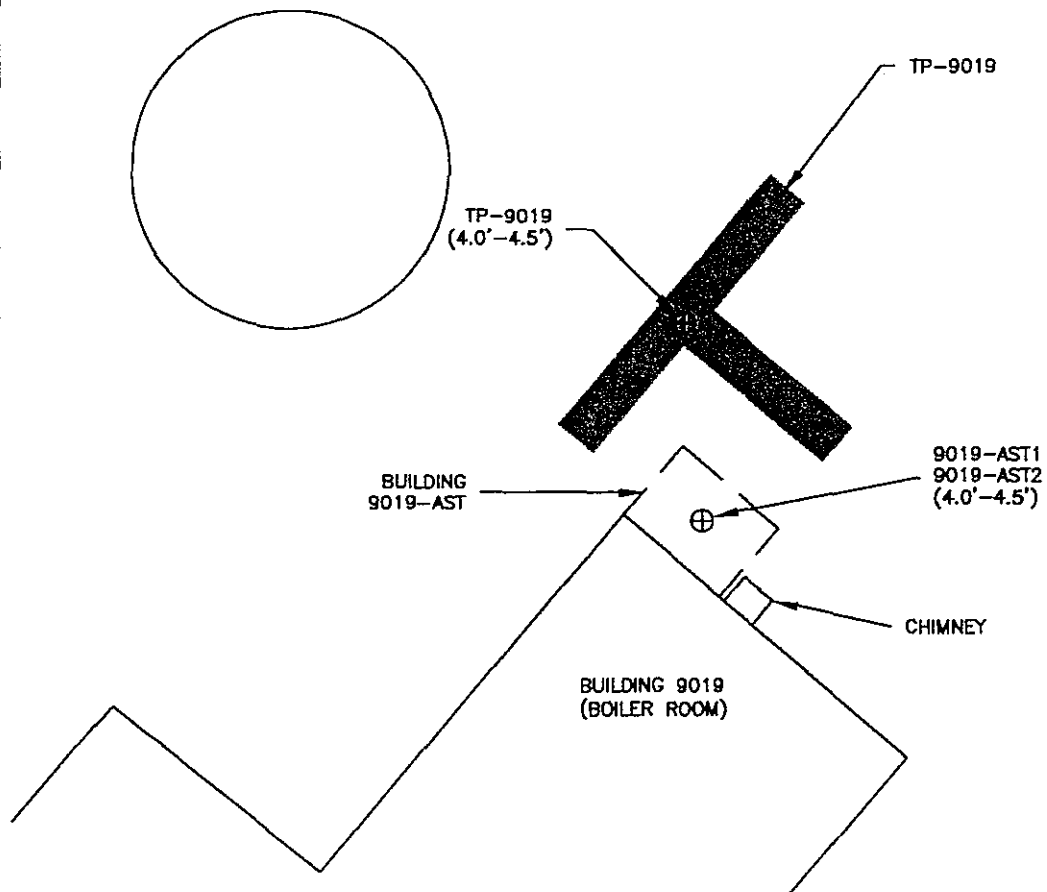
BUILDING 9014


BUILDING
9014 AST

BUILDING 9013



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 8 BUILDING 9014- HAND COLLECTION SAMPLE LOCATION (FOR AST-9014)
 TETRA TECH EM INC.



EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 9
BUILDING 9019- TEST TRENCH DIAGRAM
AND AST EXCAVATION
 TETRA TECH EM INC.



GEOPROBE
9019-C1
(6.0'-6.5')
9019-C2
(9.0'-9.5')
9019-C3
(11.5'-12.0')

BUILDING 9019

FURNACE
ROOM

A/C
UNIT

GEOPROBE
9019-D1
(7.0'-7.5')
9019-D2
(11.5'-12.0')

GEOPROBE
9019-B1
(1.5'-2.0')
9019-B2
(7.0'-7.5')
9019-B3
(8.5'-9.0')
9019-B4
(11.5'-12.0')

BUILDING 9019

GEOPROBE
9019-A1
(8.5'-9.0')
9019-A2
(11.5'-12.0')

N
(6.0'-6.5')

E
(6.0'-6.5')

B1,B2
(DUPE)
(6.5'-7.0')

W
(6.0'-6.5')

S
(6.0'-6.5')

LIMITS OF
9019-AST
REMEDIAL EXCAVATION

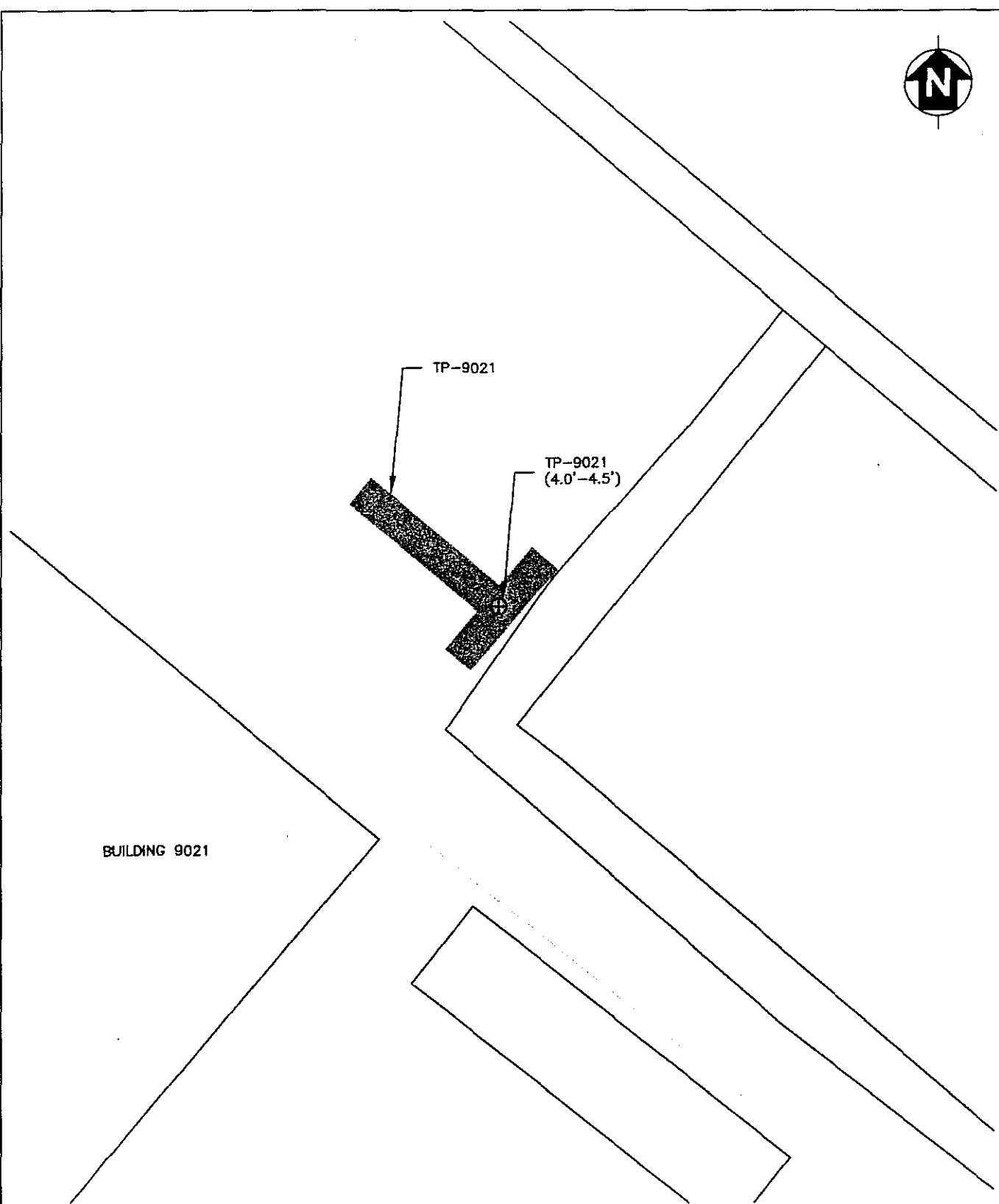
NOTE: REMEDIAL EXCAVATION SAMPLE
DIAGRAMS ARE PRECEDED BY "9019-AST"



EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 10
BUILDING 9019 - REMEDIAL EXCAVATION AND
GEOPROBE LOCATION DIAGRAM

 TETRA TECH EM INC.




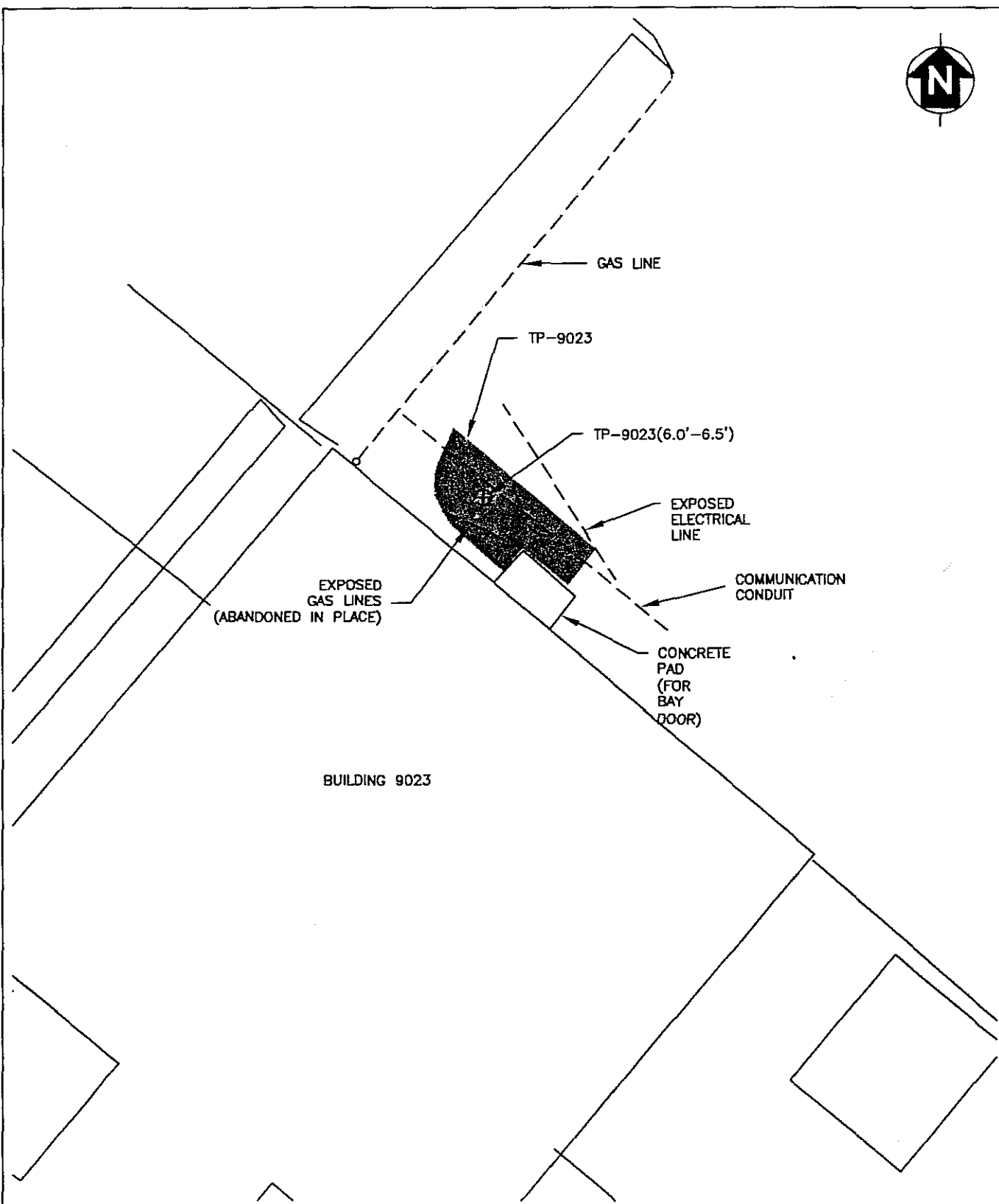
BUILDING 9021


TP-9021

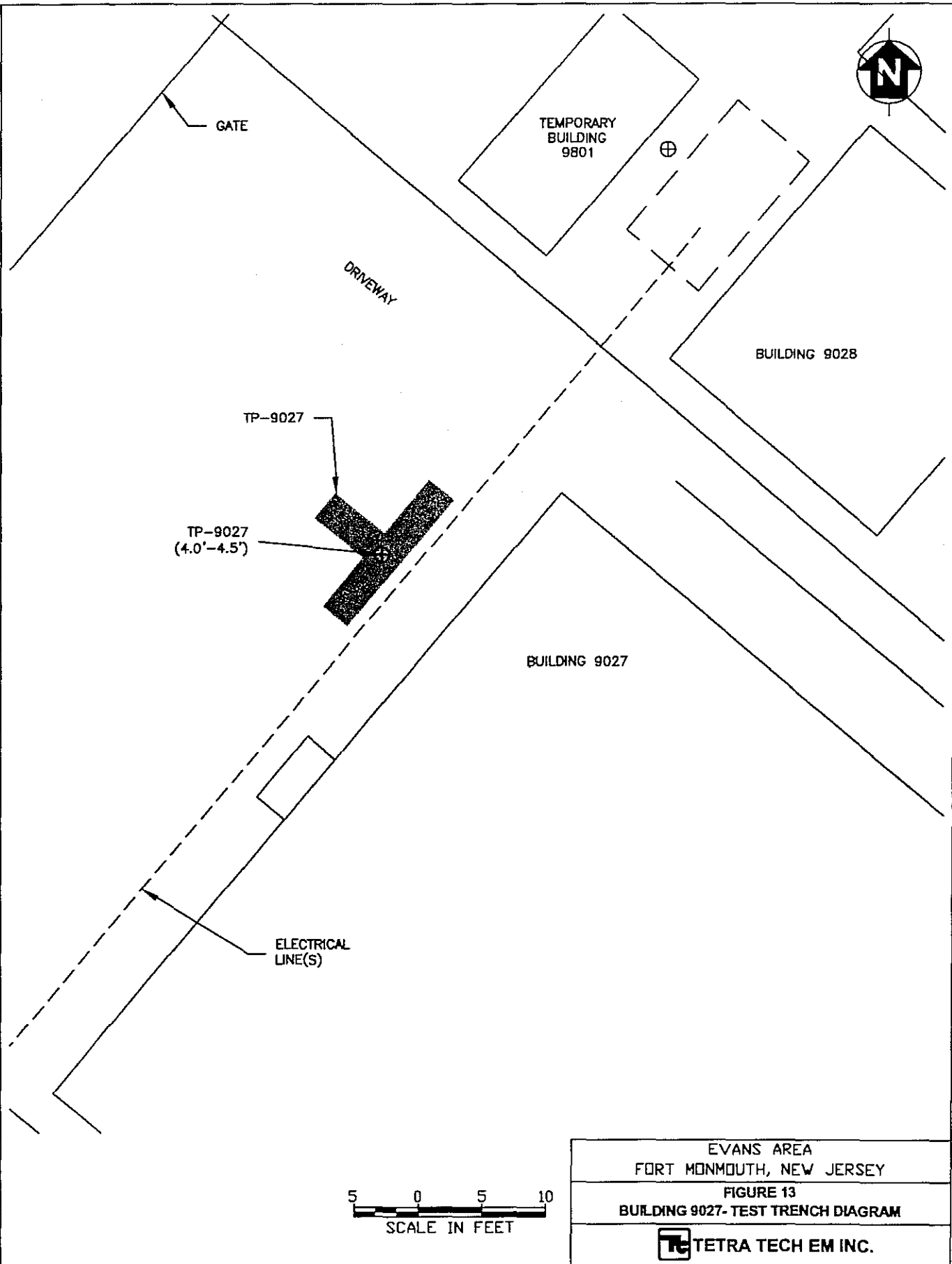
TP-9021
(4.0'-4.5')




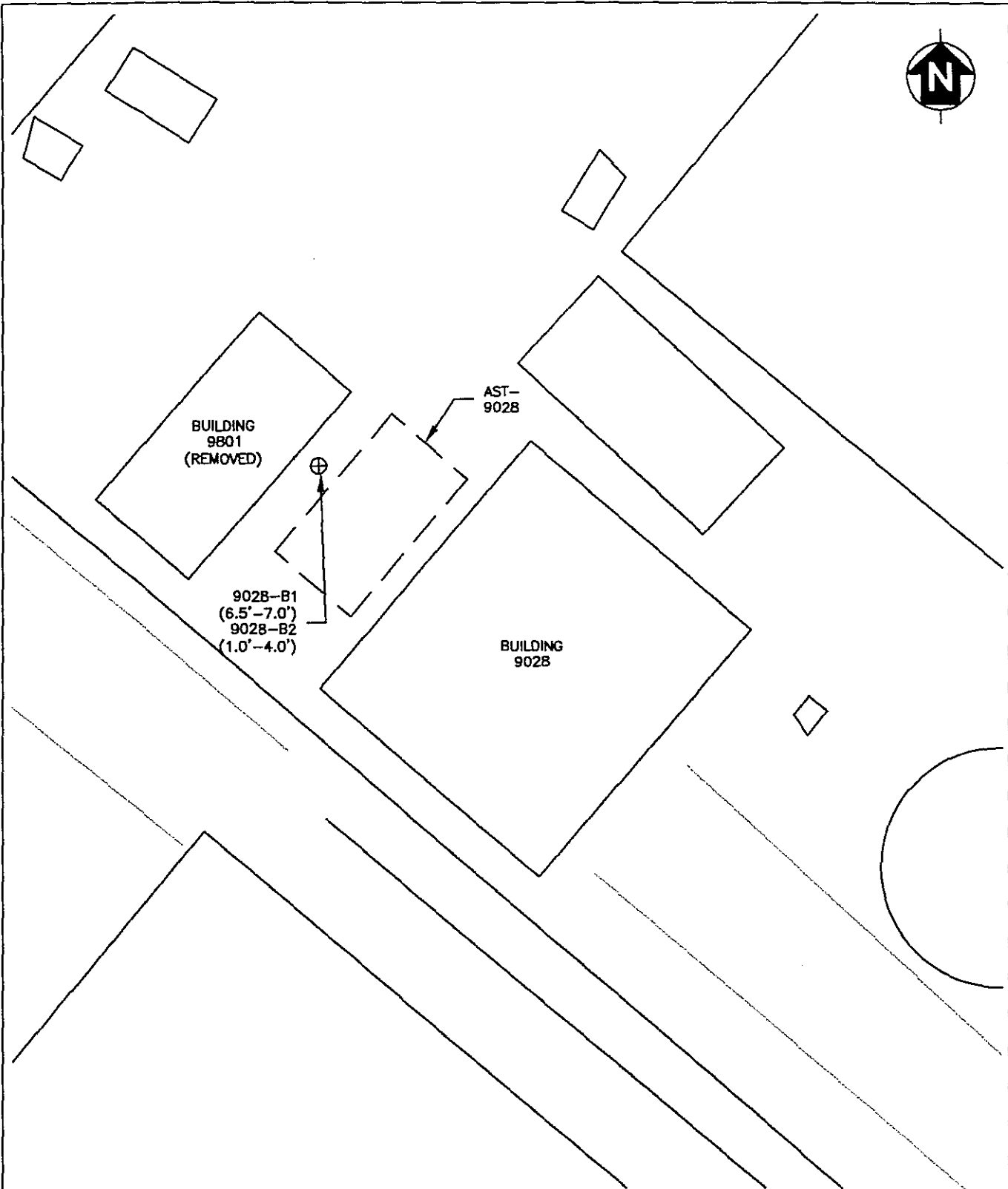
EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 11 BUILDING 9021- TEST TRENCH DIAGRAM
 TETRA TECH EM INC.




EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 12
BUILDING 9023 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.

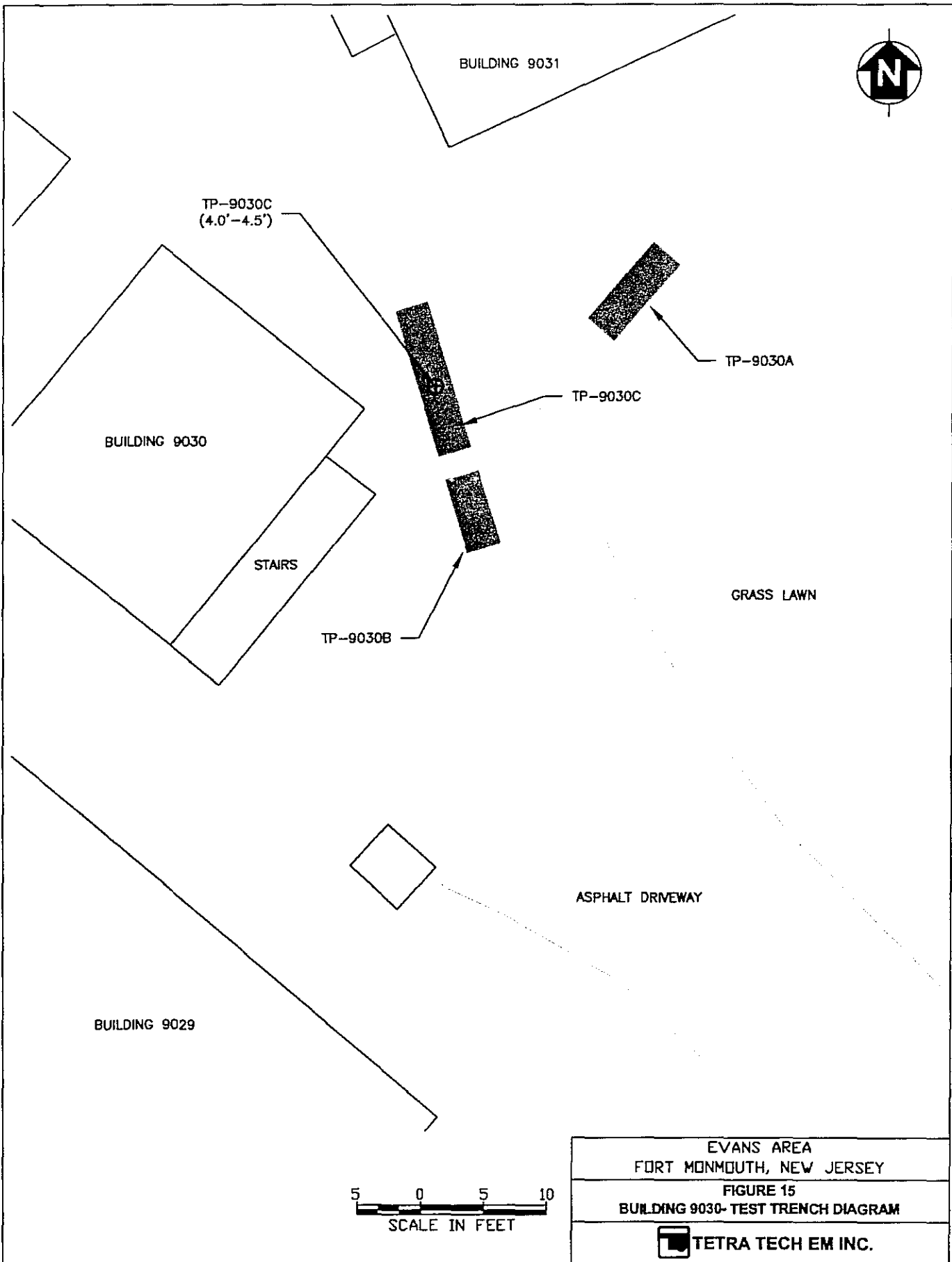



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 13 BUILDING 9027- TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 14
BUILDING 9028- GEOPROBE BORING LOCATION
(FOR AST-9028)

 TETRA TECH EM INC.



EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 15
BUILDING 9030- TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



BUILDING 9032



BL9033-B2
(11.5'-12.0')



BUILDING
9033

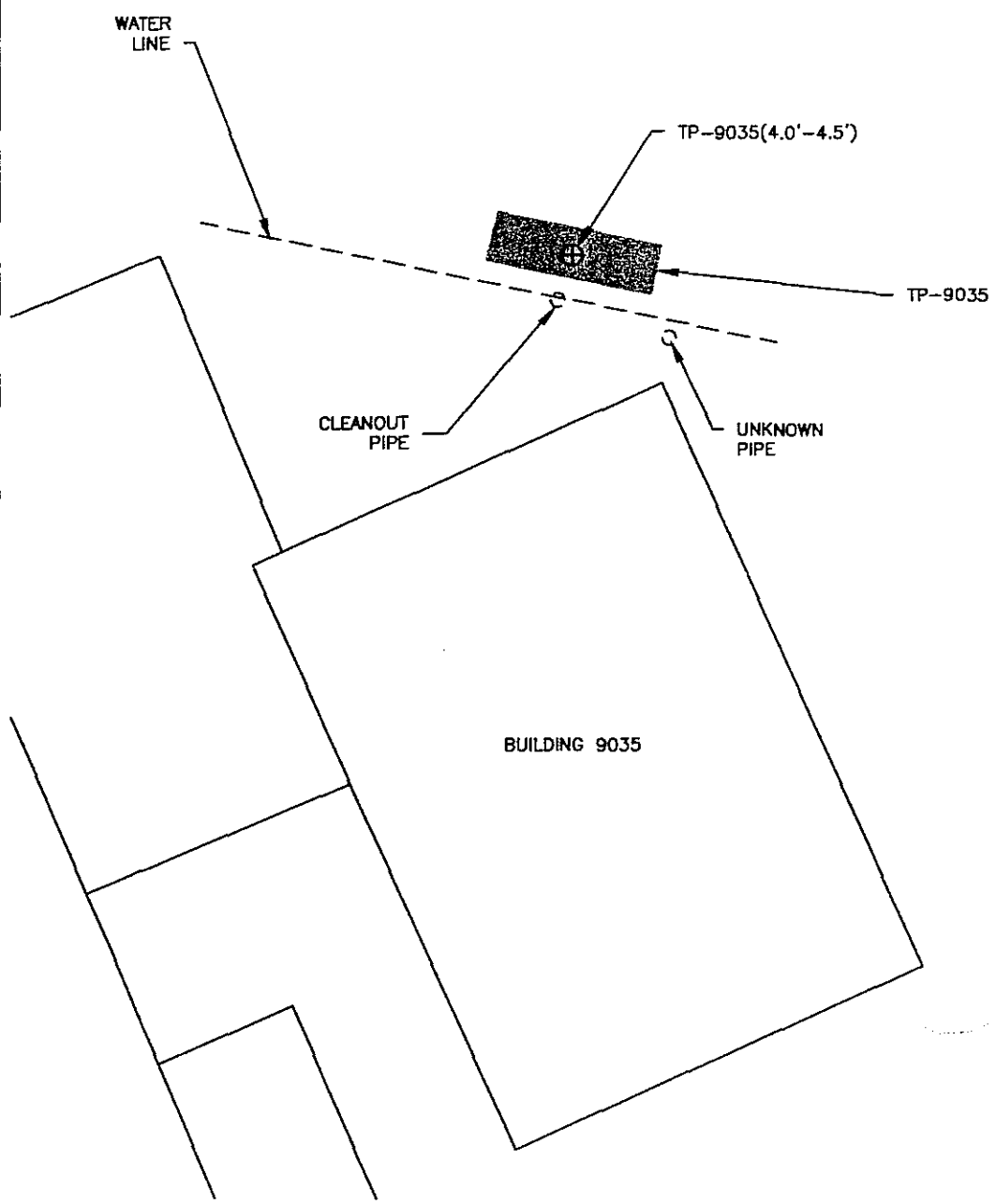
AST-9033




EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 16
BUILDING 9033- AST SAMPLE LOCATION



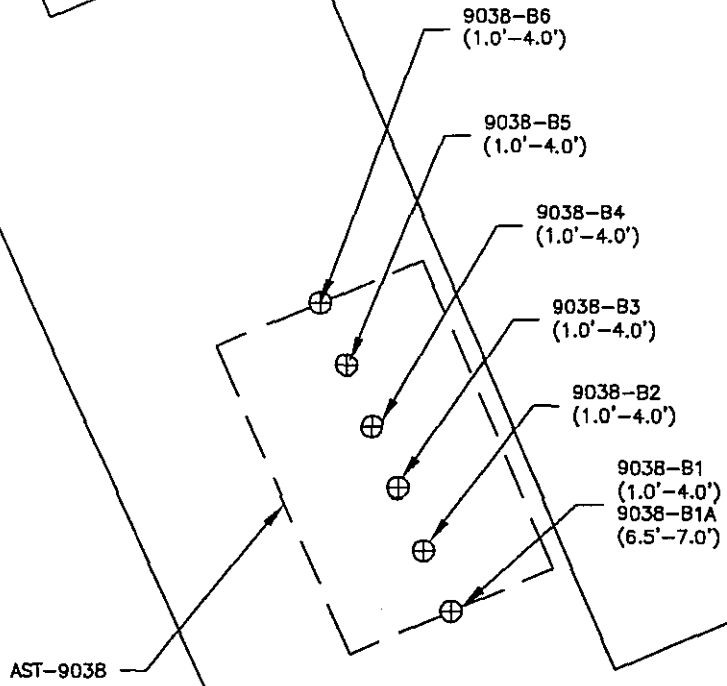



5 0 5 10
SCALE IN FEET

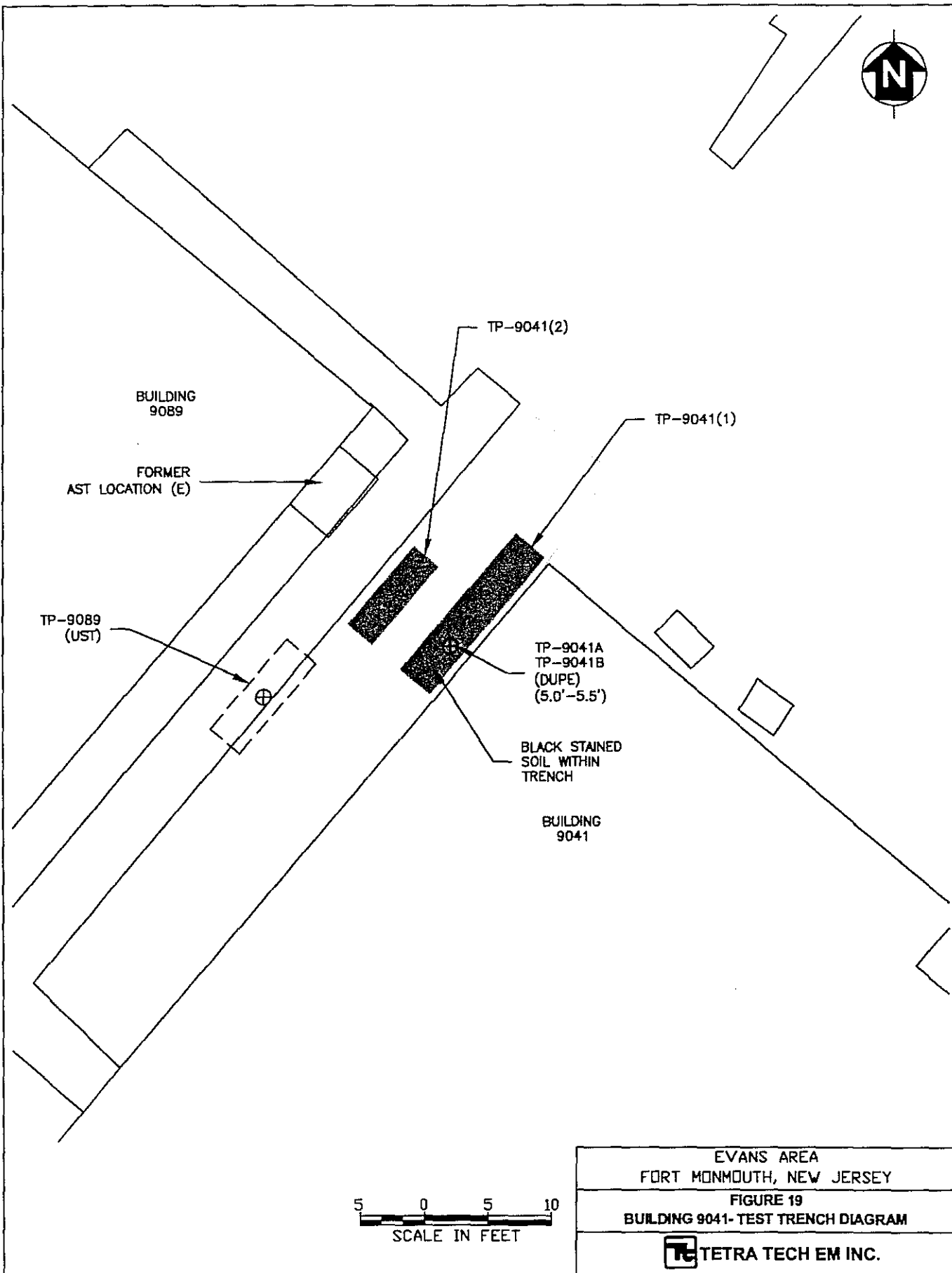
EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 17
BUILDING 9035- TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



BUILDING 9036



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 18 BUILDING 9038- GEOPROBE BORING LOCATION (FOR AST-9038)
 TETRA TECH EM INC.



EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 19
BUILDING 9041- TEST TRENCH DIAGRAM

 TETRA TECH EM INC.



BUILDING
9041

BL9041-BL
(11.5'-12.0')

BL9041-B2
(11.5'-12.0')

BL9041-B3
(11.5'-12.0')

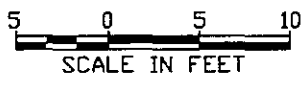
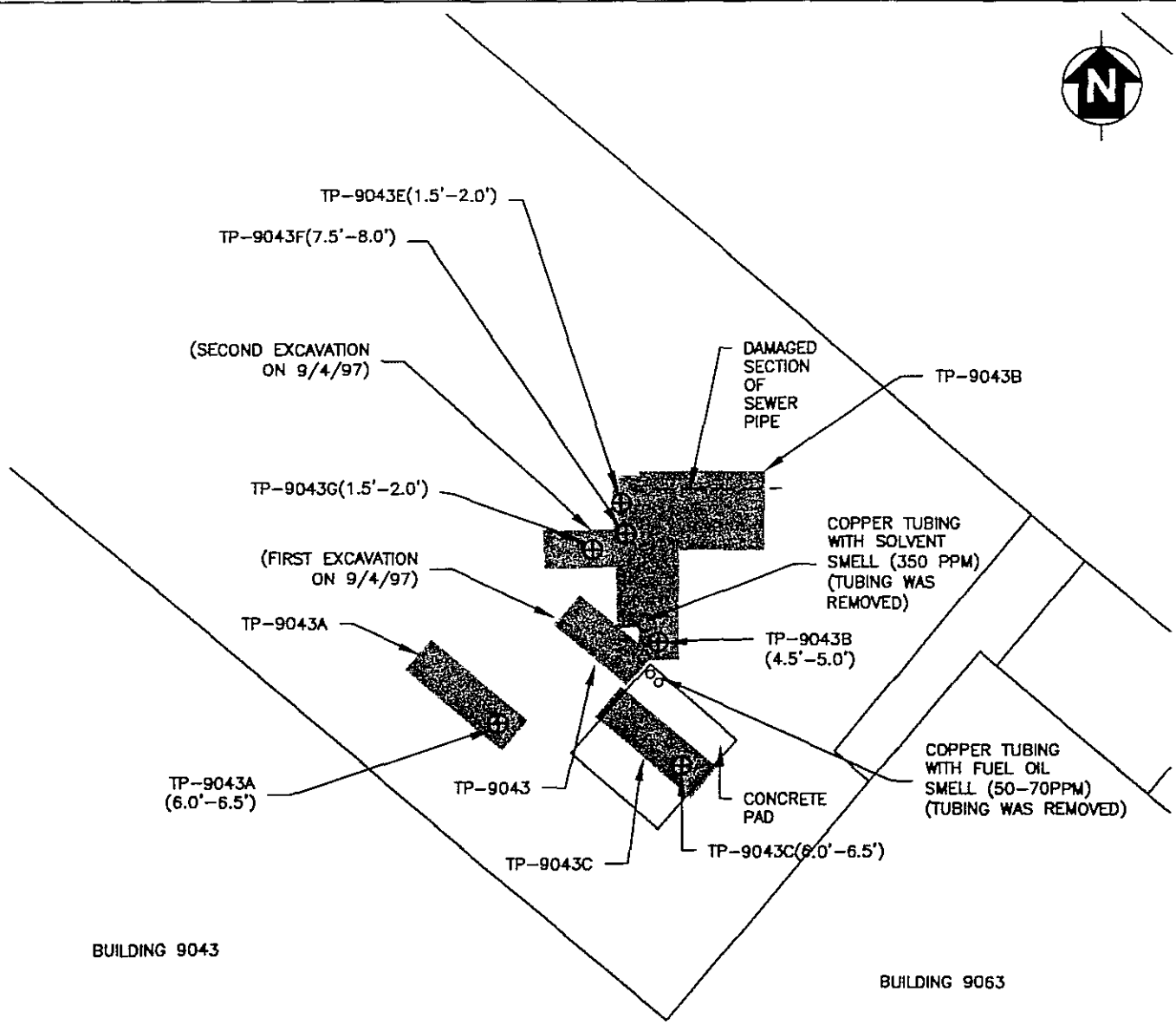
AST-9041




EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 20
BUILDING 9041- GEOPROBE BORING LOCATION
(FOR AST-9041)

 TETRA TECH EM INC.



EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 21
BUILDING 9043 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



BUILDING 9045

GEOPROBE
9045-A1
(11.5'-12.0')

GEOPROBE
9045-B1
(11.5'-12.0')

GEOPROBE
9045-C1
(11.5'-12.0')

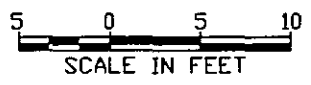
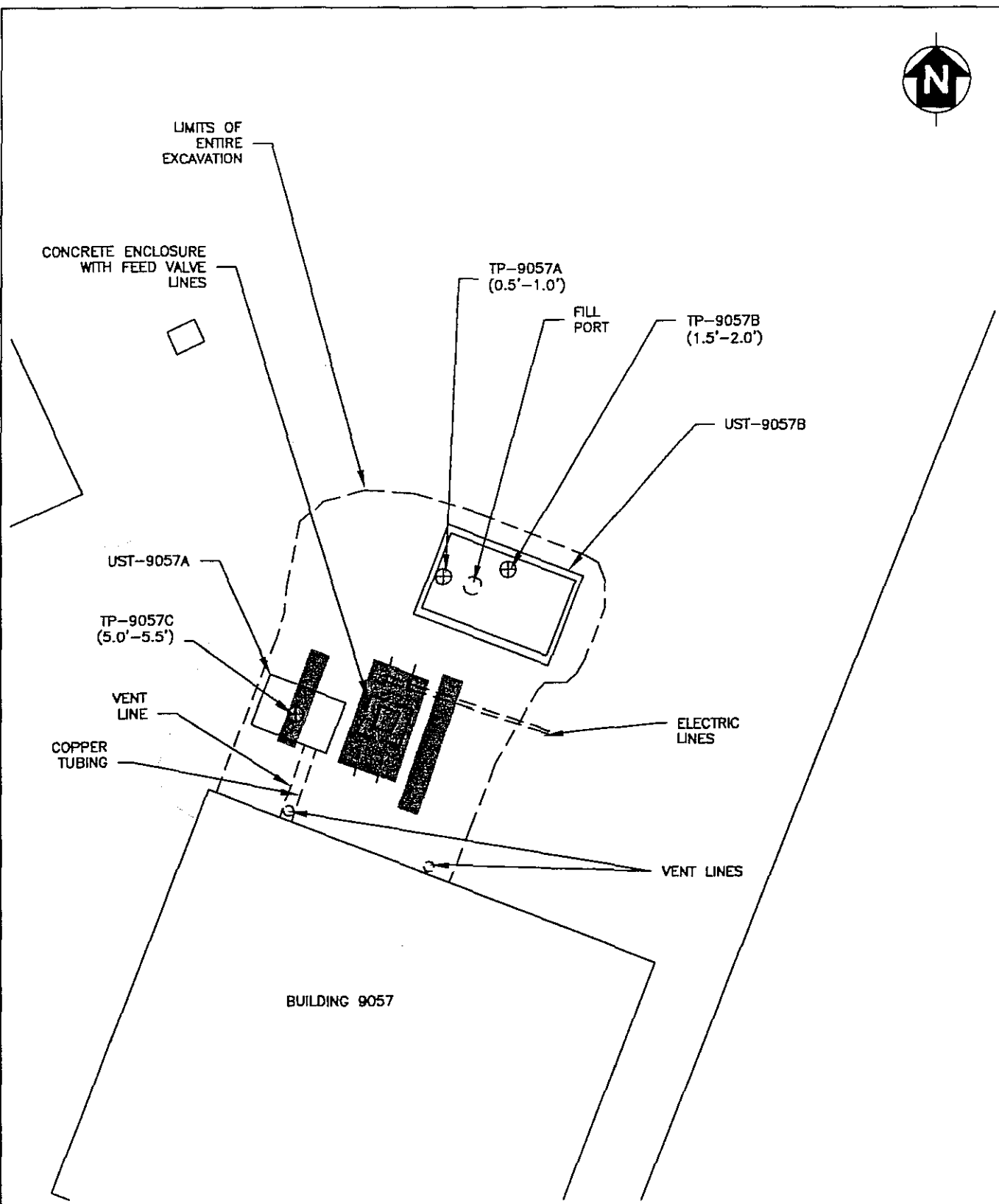
FURNACE ROOM


AST-9045



EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 22
BUILDING 9045 - GEOPROBE LOCATION DIAGRAM

 TETRA TECH EM INC.



EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 23
BUILDING 9057- TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



BUILDING 9059

TP-9059/FIRST
TRENCH

TP-9059
(4.0'-4.5')

UNKNOWN
EXPOSED
PIPE

WATER
LINE

SECOND
TRENCH

THIRD
TRENCH



EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 24
BUILDING 9059- TEST TRENCH DIAGRAM

 TETRA TECH EM INC.



BUILDING 9059

A/C UNIT

9059-A1
(6.5'-7.0')
9059-A2
(11.5'-12.0')

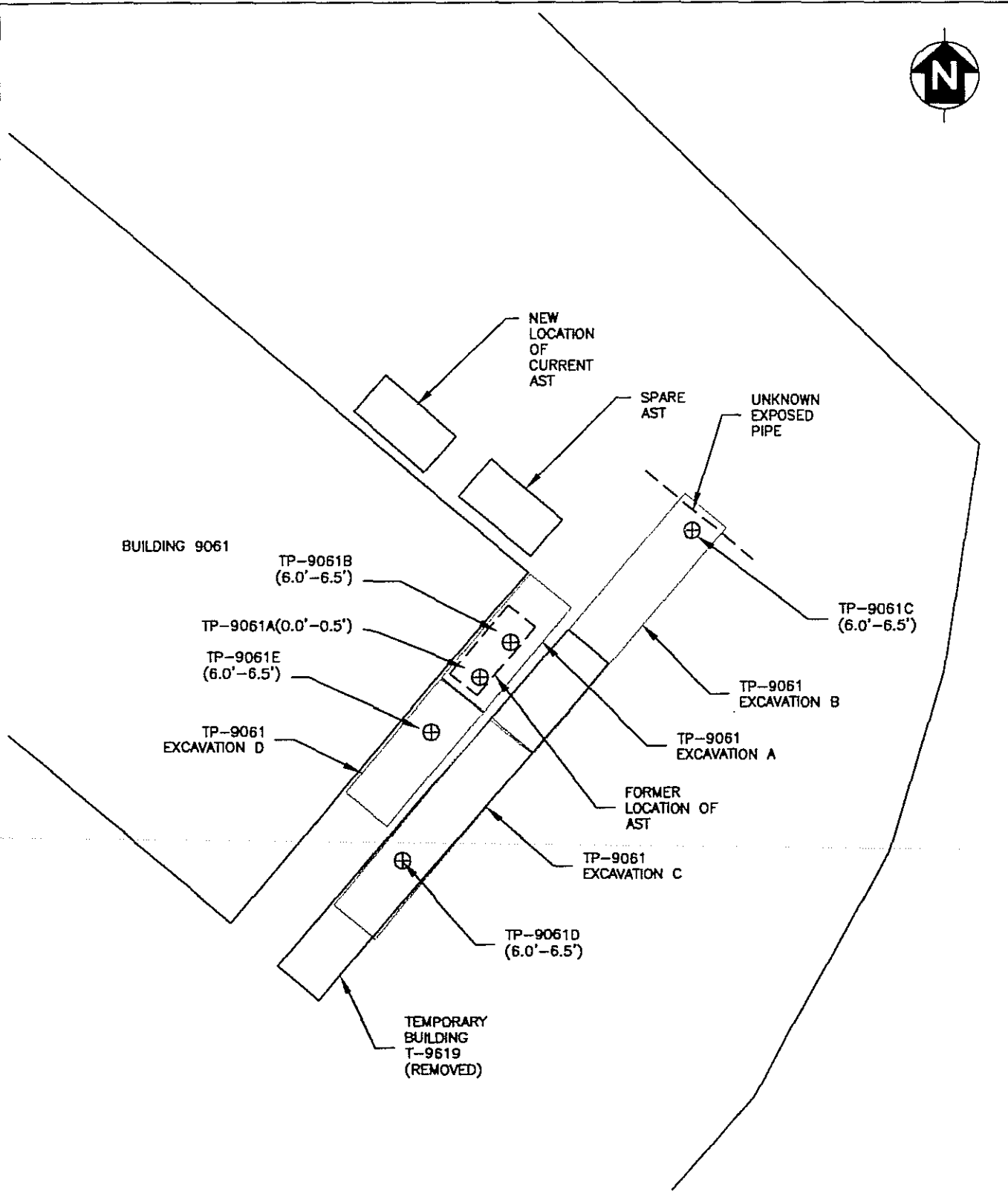
BUILDING
9059 AST




EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 25
BUILDING 9059- AST SAMPLE LOCATION

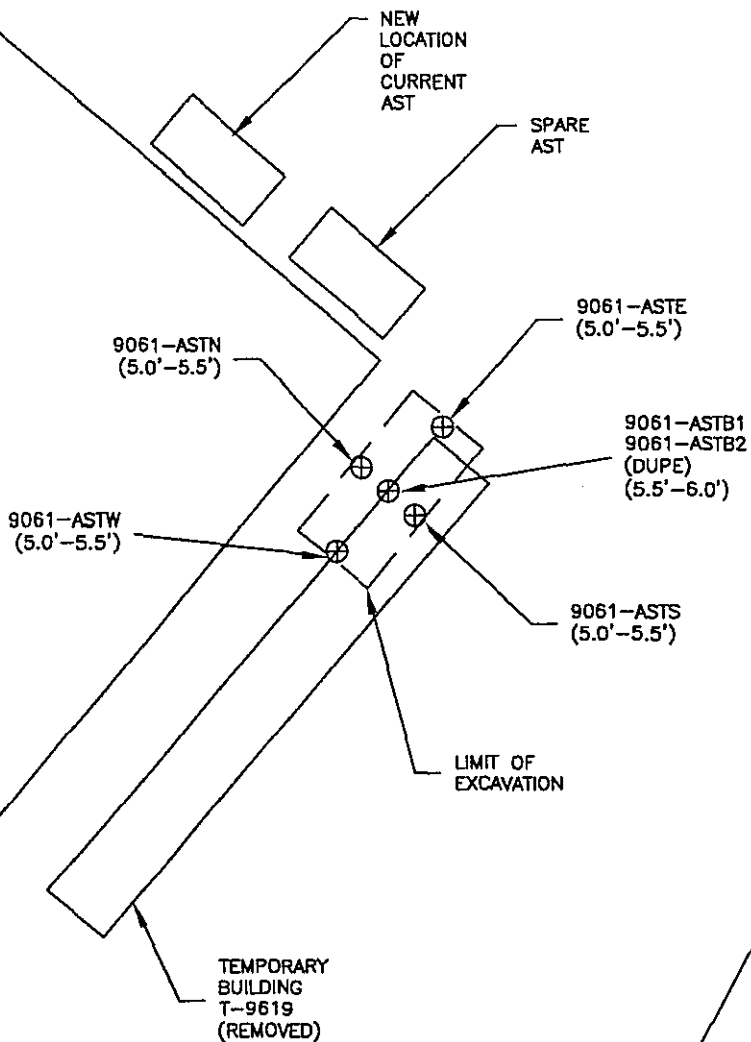




EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 26
BUILDING 9061 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.




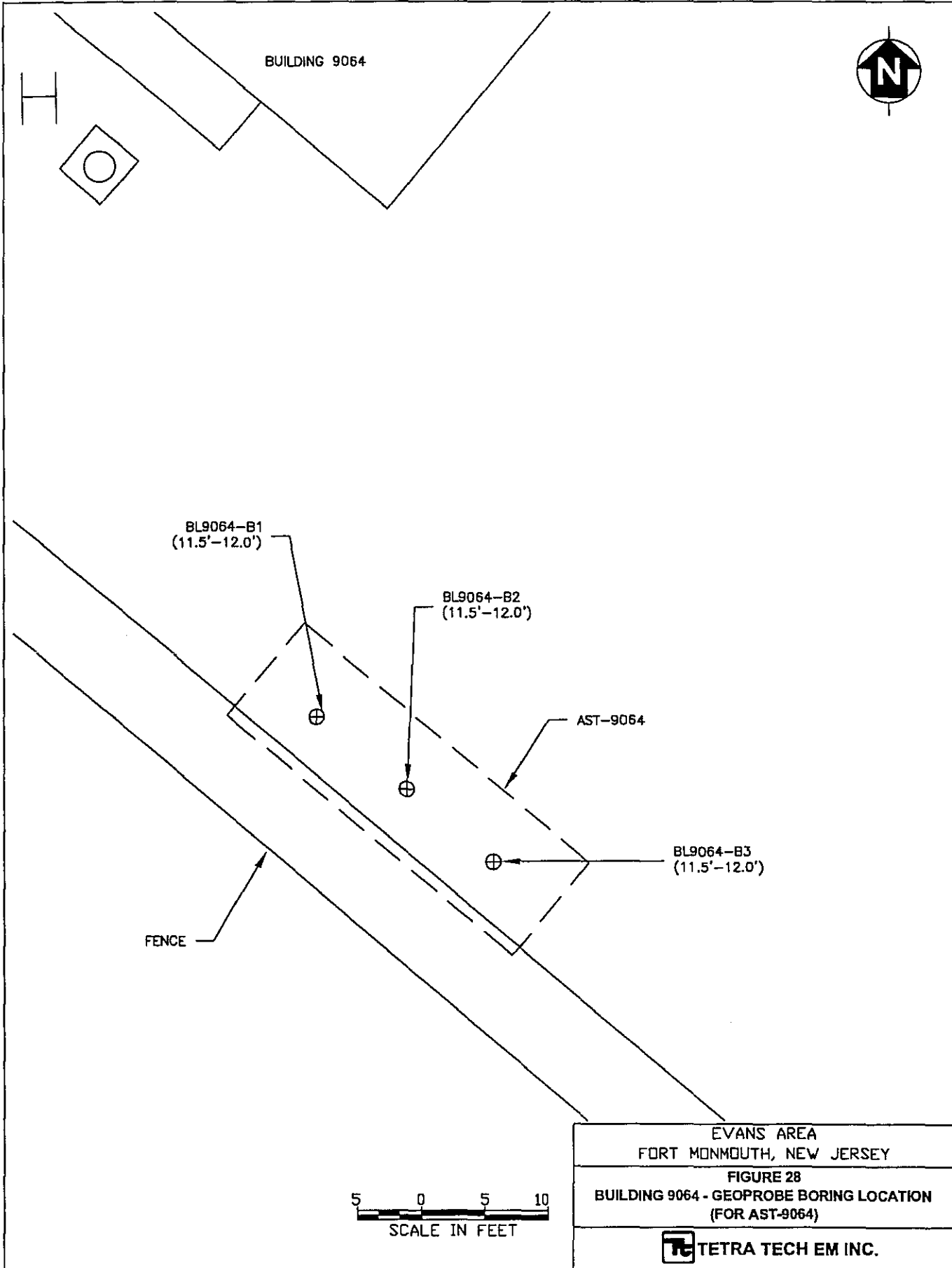
BUILDING 9061

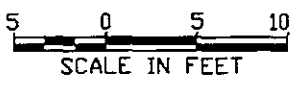
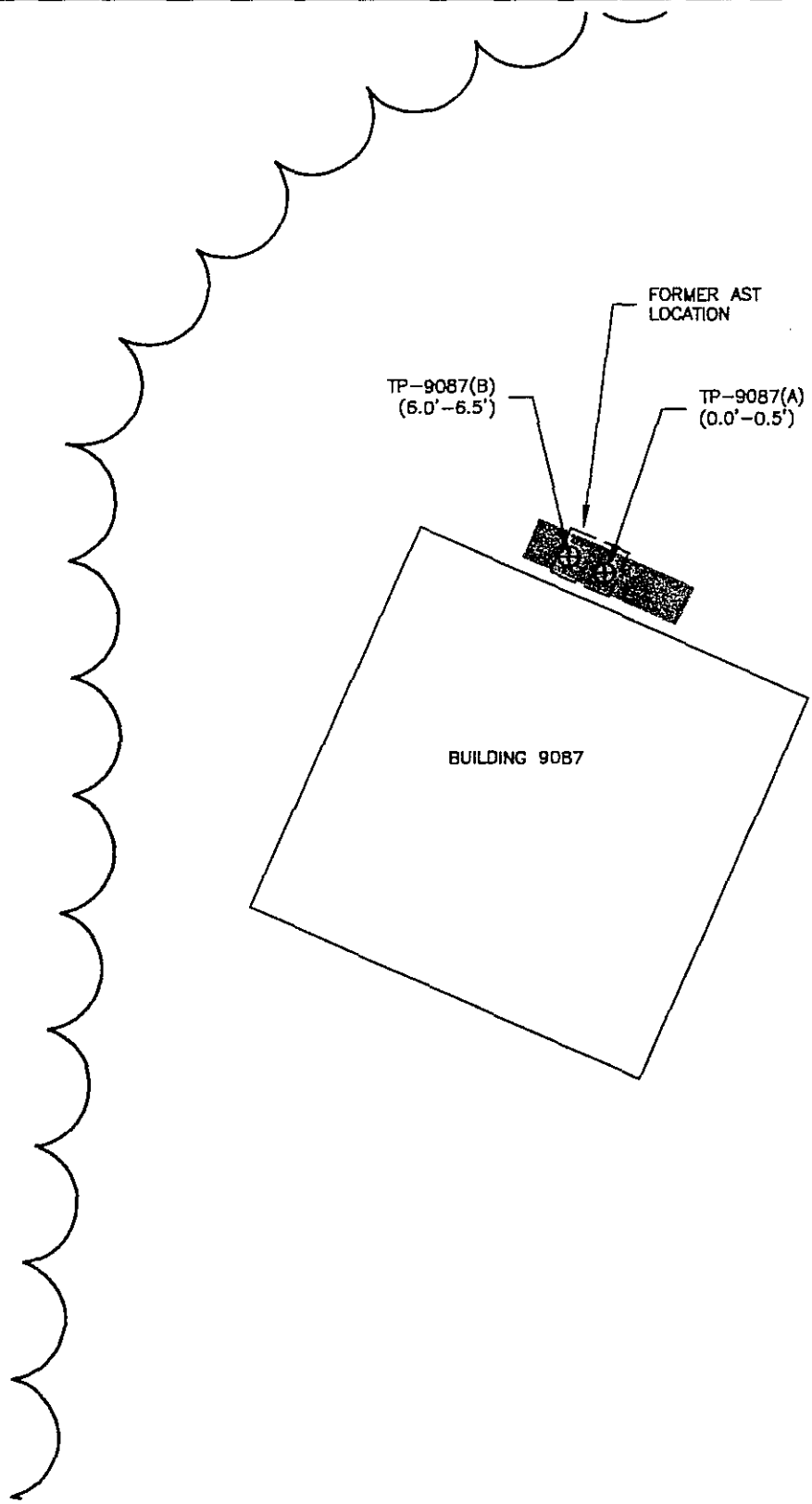



NOTE: SAMPLE IDS WERE ASSIGNED BASED ON SITE NORTH TOWARDS MONMOUTH BOULEVARD

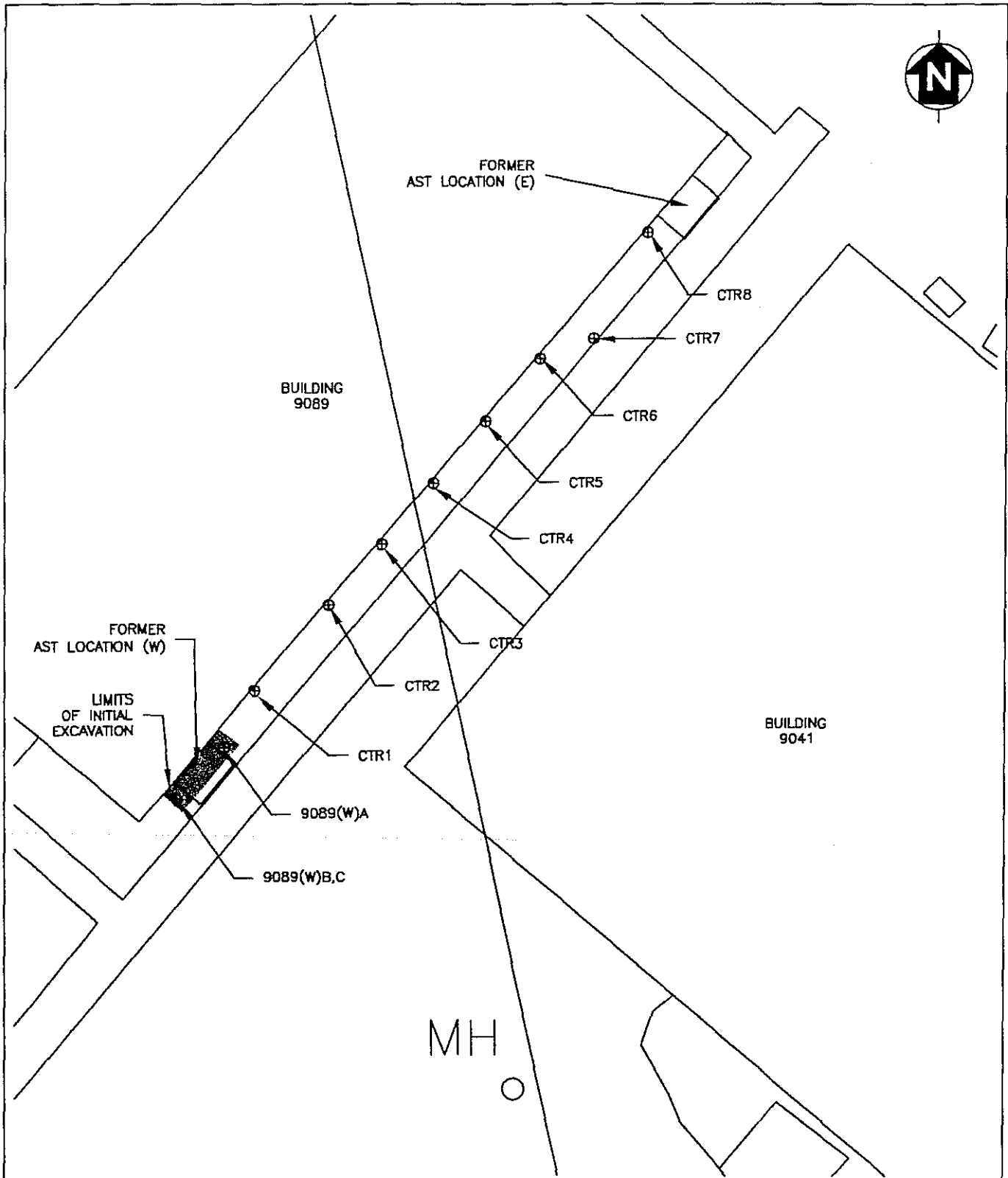


EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 27 BUILDING 9061 - REMEDIAL EXCAVATION DIAGRAM
 TETRA TECH EM INC.






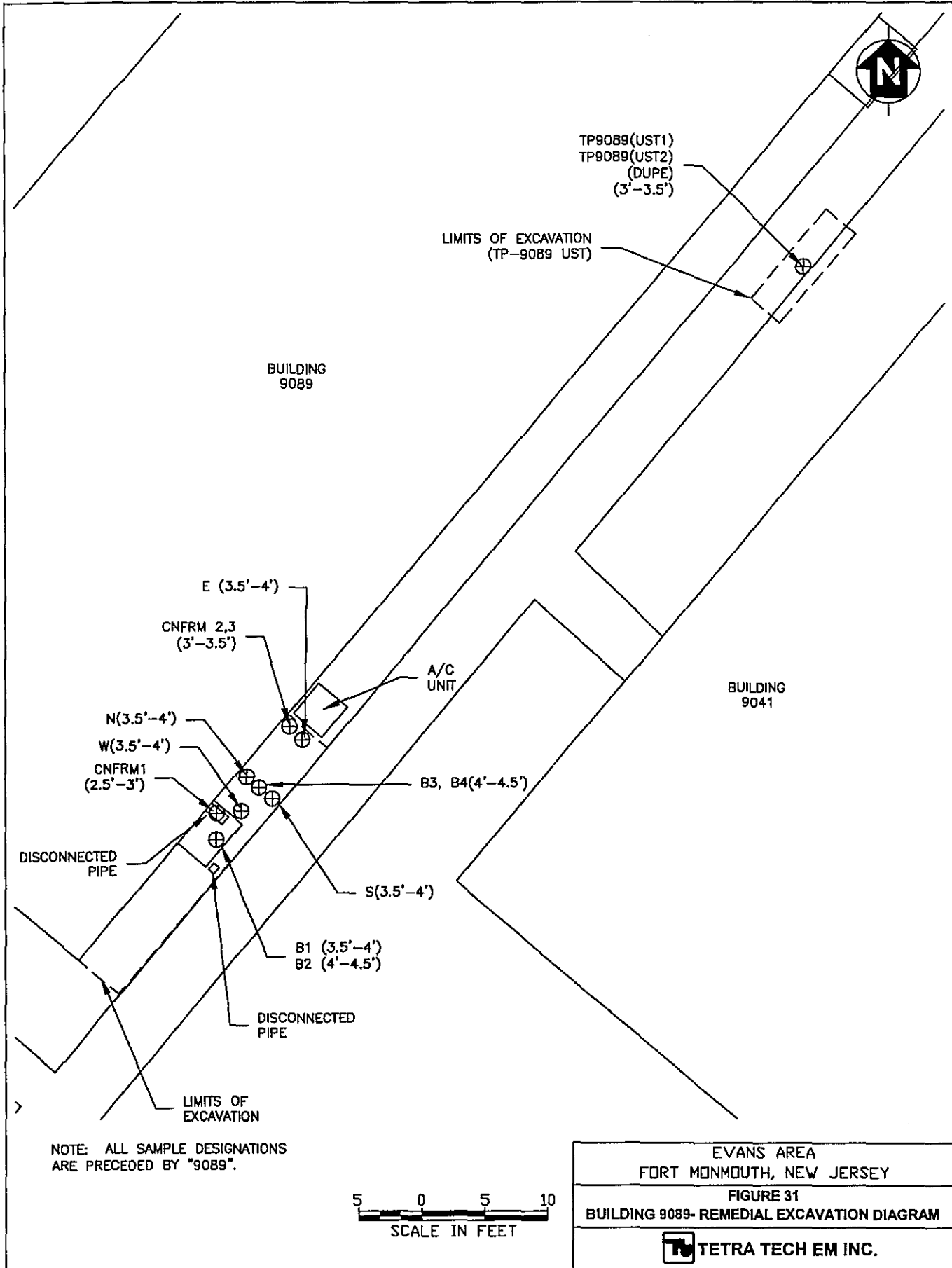
EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 29
BUILDING 9087 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



NOTE: ALL SAMPLE DESIGNATIONS ARE PRECEDED BY "9089".

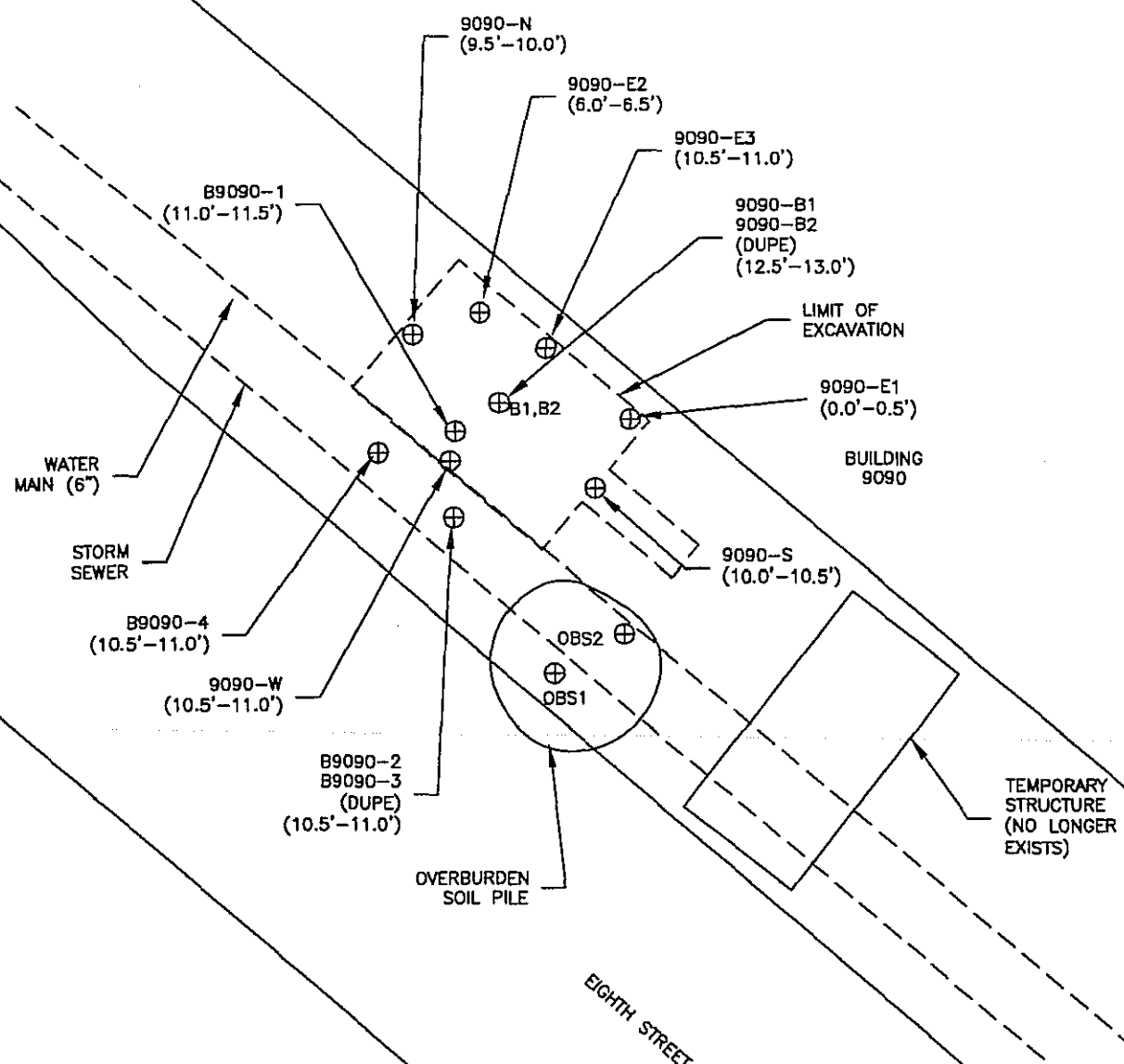


EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 30 BUILDING 9089-TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



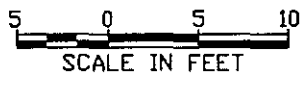



AVENUE "A"

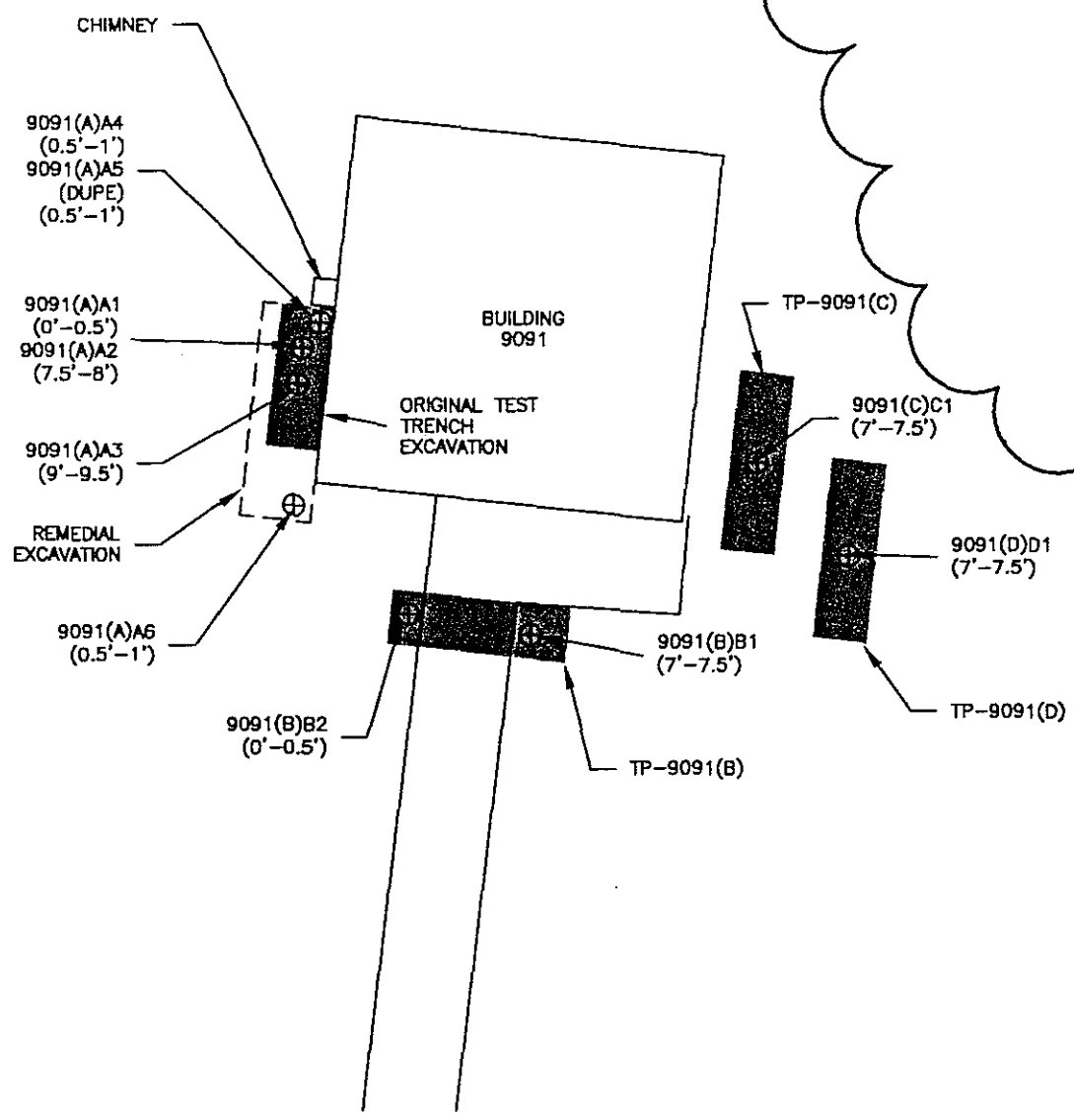



NOTES:
 1) SAMPLE W (9090W) WAS LOCATED BENEATH WATER MAIN (11.5') FROM BUILDING

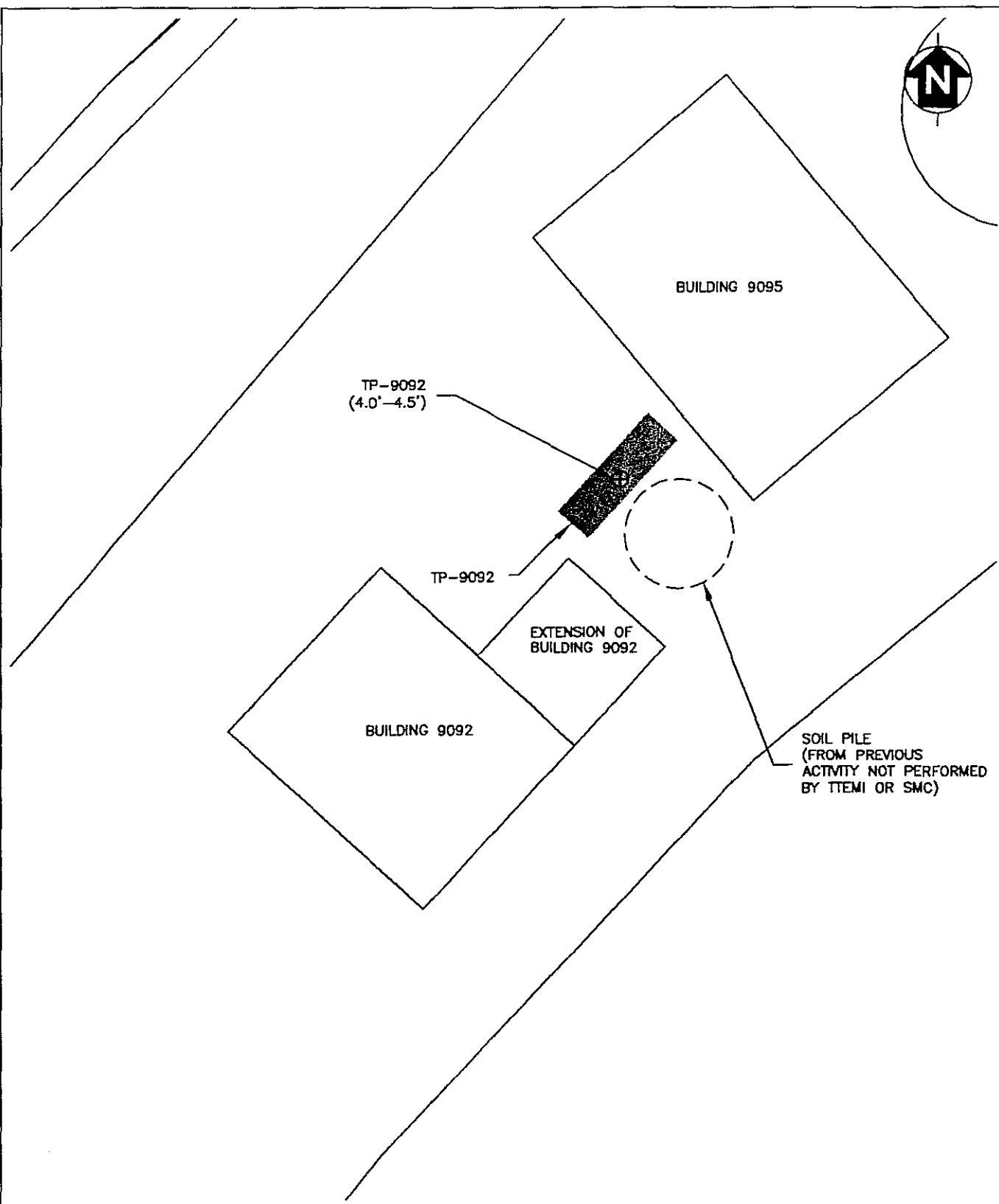
2) ALL SAMPLE IDS WERE ASSIGNED BASED ON SITE NORTH TOWARDS MONMOUTH BOULEVARD



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 32 BUILDING 9090- REMEDIAL EXCAVATION DIAGRAM
 TETRA TECH EM INC.



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 33 BUILDING 9091-TEST TRENCH EXCAVATIONS
 TETRA TECH EM INC.



TP-9092
(4.0'-4.5')

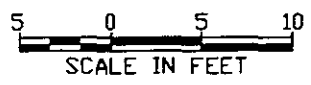
TP-9092


EXTENSION OF
BUILDING 9092

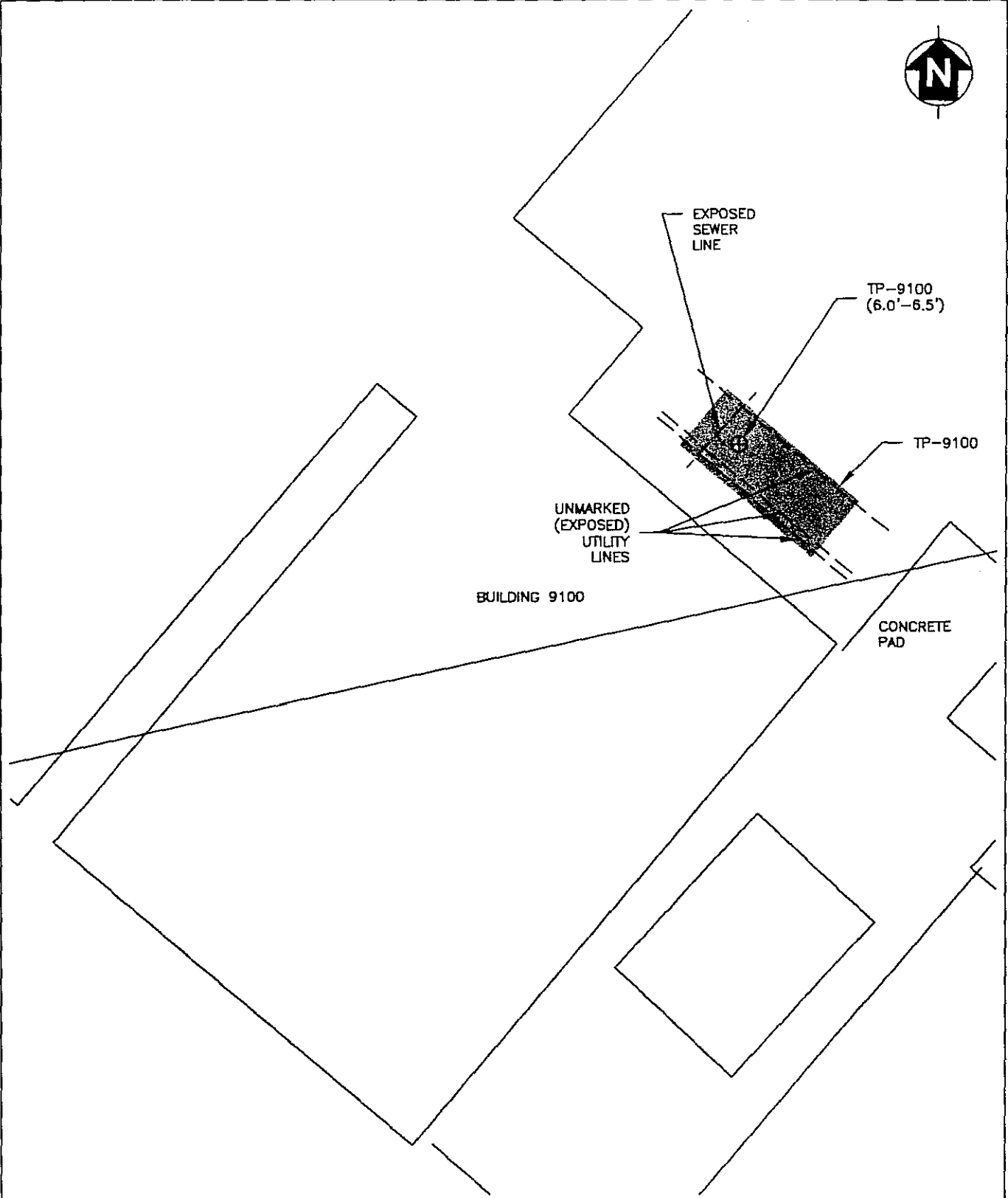
BUILDING 9092

BUILDING 9095

SOIL PILE
(FROM PREVIOUS
ACTIVITY NOT PERFORMED
BY TTEM OR SMC)



EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 34
BUILDING 9092- TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



BUILDING 9100

EXPOSED
SEWER
LINE

TP-9100
(6.0'-6.5')

TP-9100

UNMARKED
(EXPOSED)
UTILITY
LINES

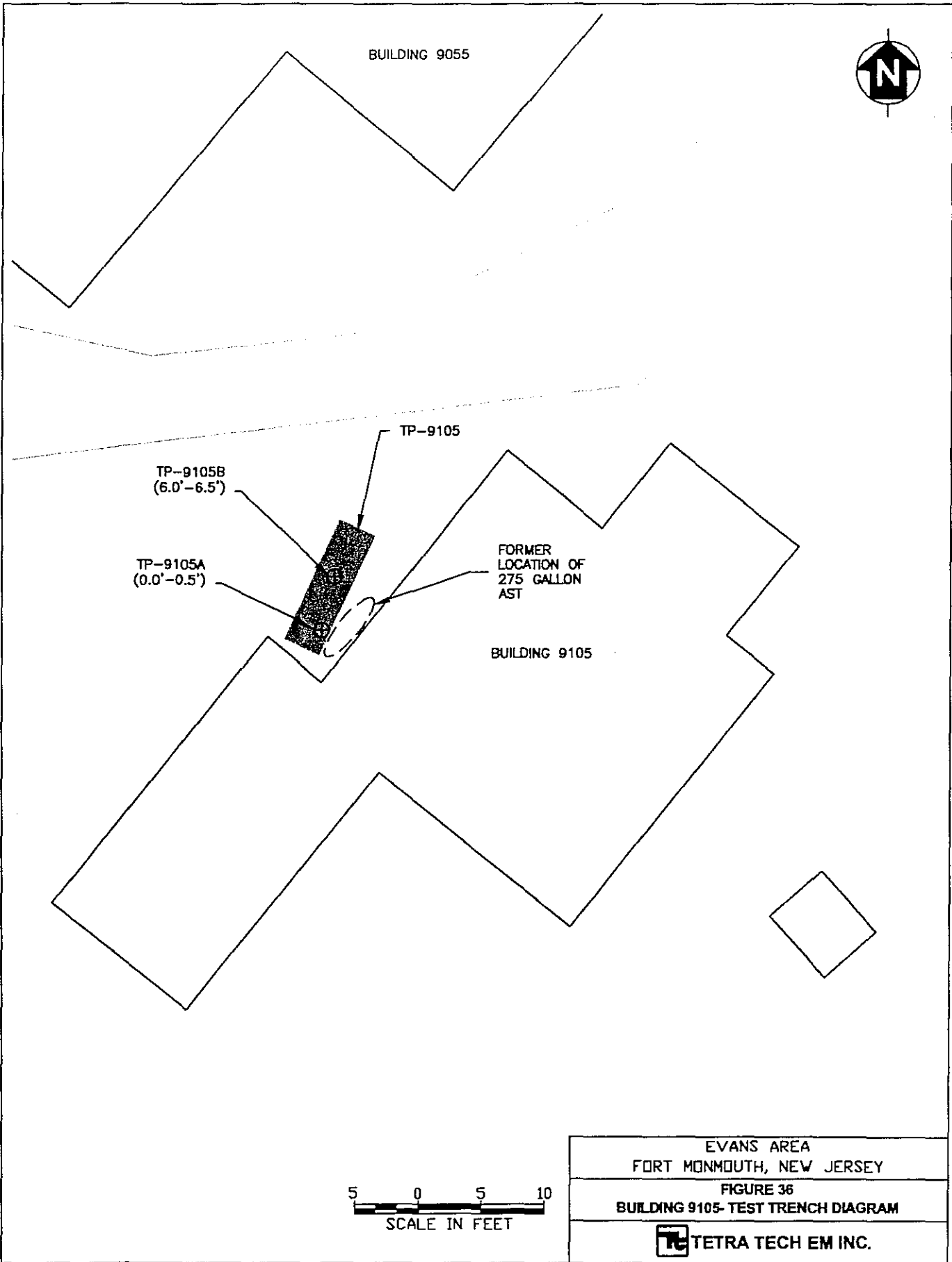
CONCRETE
PAD

5 0 5 10
SCALE IN FEET

EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 35
BUILDING 9100 - TEST TRENCH DIAGRAM

 TETRA TECH EM INC.



BUILDING 9055



TP-9105

TP-9105B
(6.0'-6.5')

TP-9105A
(0.0'-0.5')

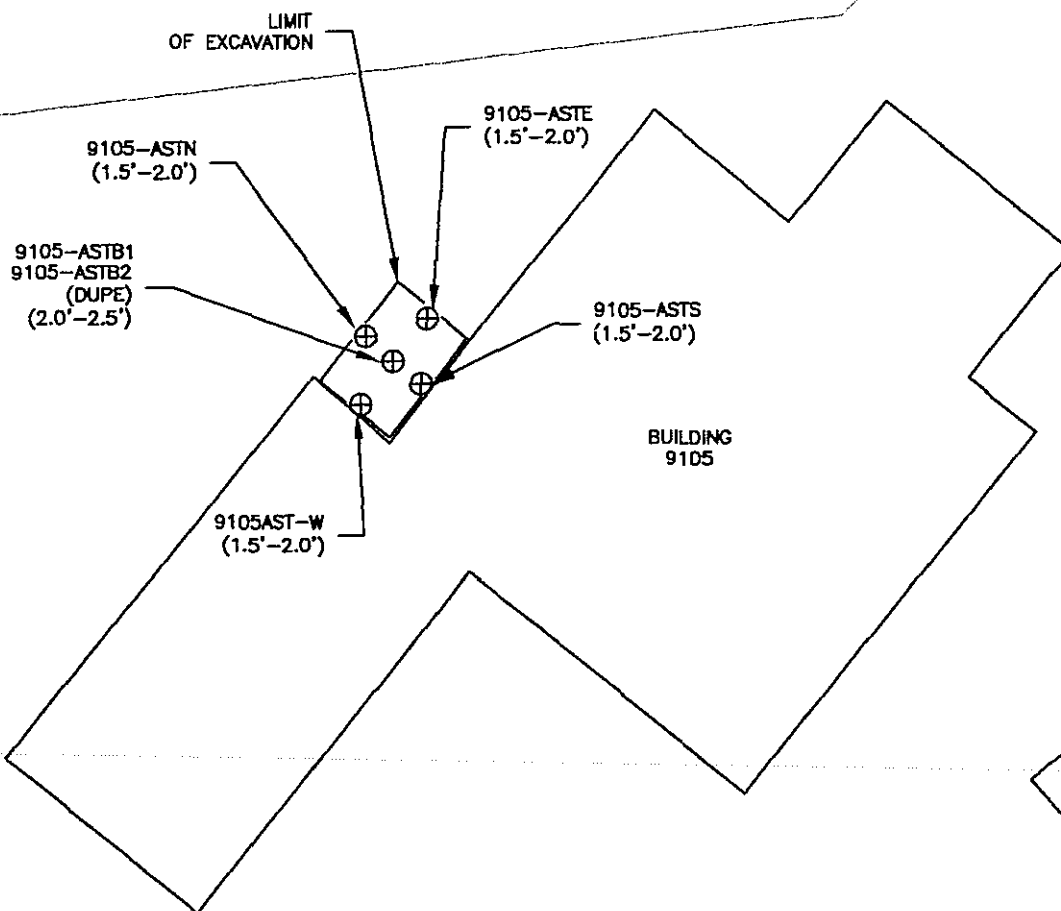
FORMER
LOCATION OF
275 GALLON
AST

BUILDING 9105

5 0 5 10
SCALE IN FEET


EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 36
BUILDING 9105- TEST TRENCH DIAGRAM

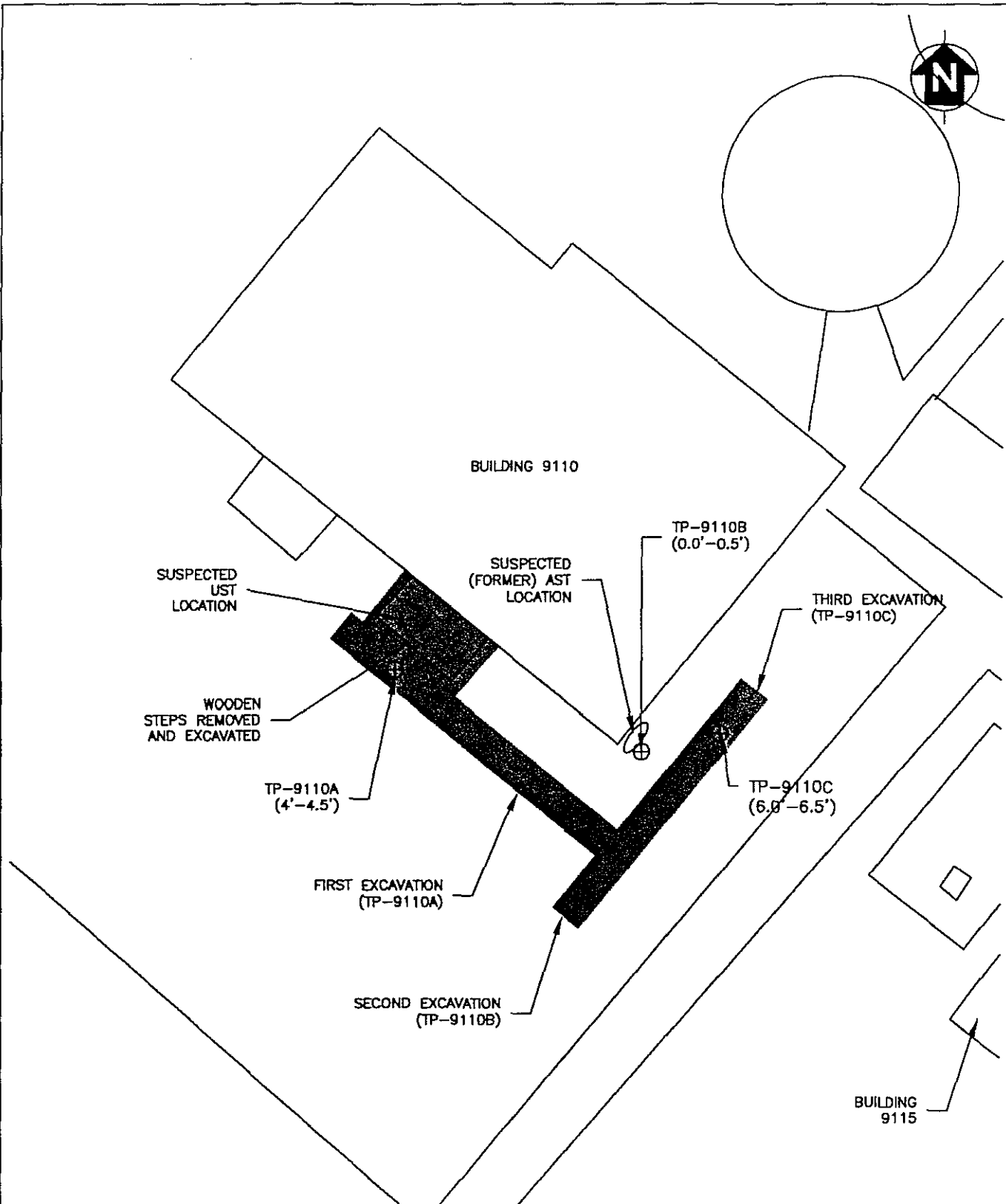
 TETRA TECH EM INC.



NOTE: SAMPLE IDS WERE ASSIGNED BASED ON
SITE NORTH TOWARDS MONMOUTH BOULEVARD



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 37 BUILDING 9105- REMEDIAL EXCAVATION DIAGRAM
 TETRA TECH EM INC.



BUILDING 9110

SUSPECTED UST LOCATION

WOODEN STEPS REMOVED AND EXCAVATED

TP-9110A (4'-4.5')

FIRST EXCAVATION (TP-9110A)

SECOND EXCAVATION (TP-9110B)

SUSPECTED (FORMER) AST LOCATION


TP-9110B (0.0'-0.5')

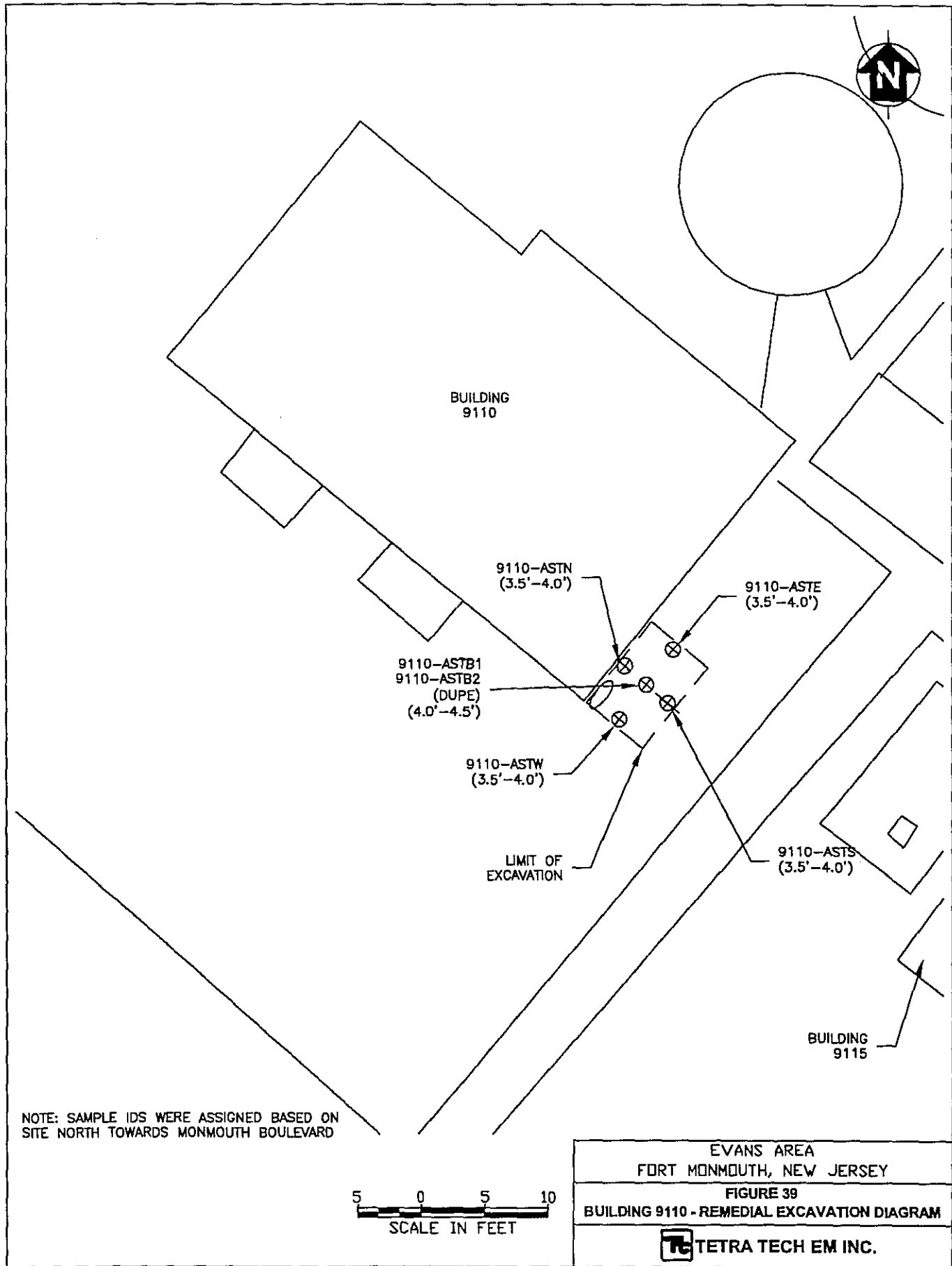
TP-9110C (6.0'-6.5')

THIRD EXCAVATION (TP-9110C)

BUILDING 9115




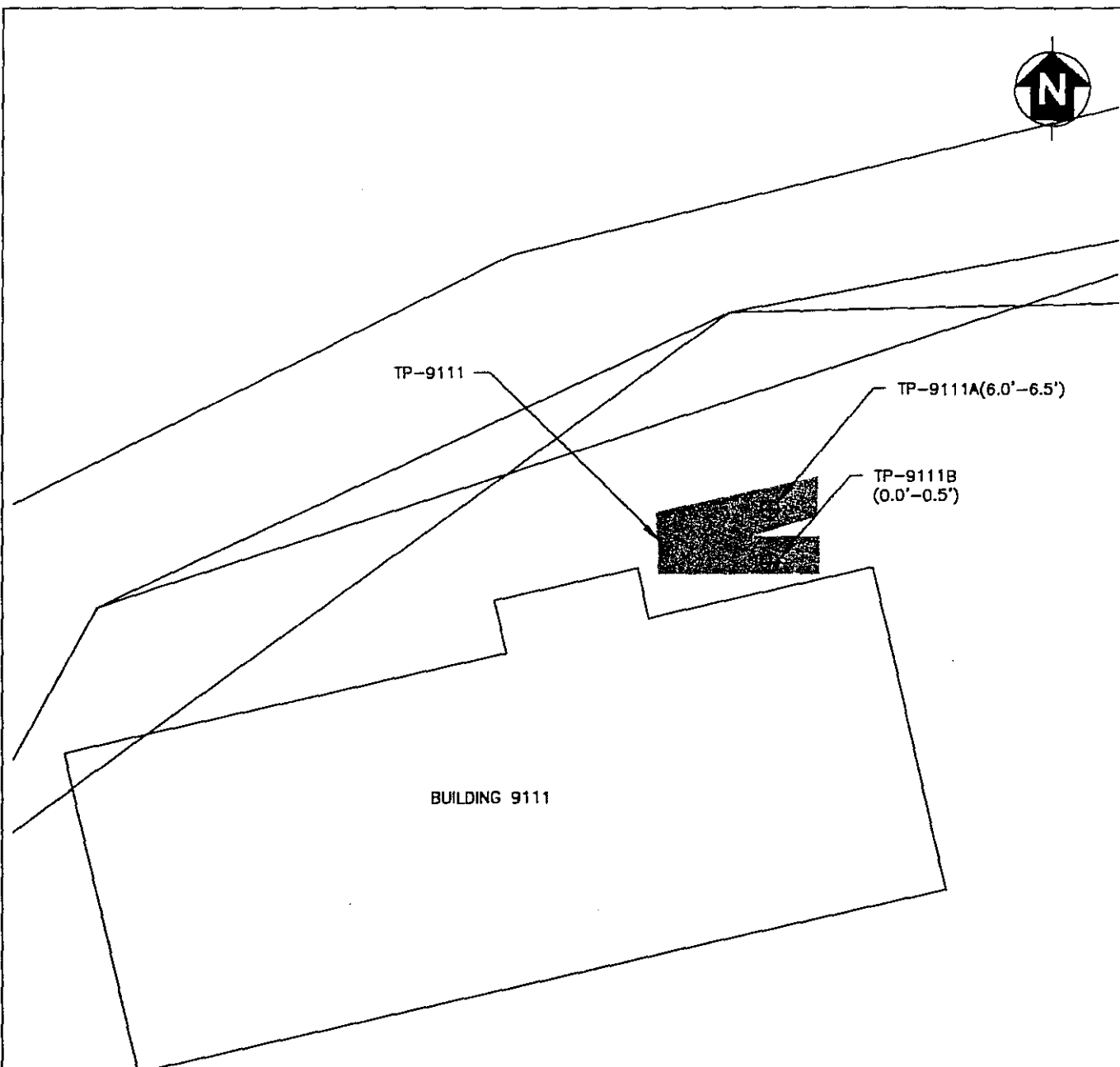
EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 38
BUILDING 9110 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



NOTE: SAMPLE IDS WERE ASSIGNED BASED ON SITE NORTH TOWARDS MONMOUTH BOULEVARD

5 0 5 10
SCALE IN FEET

EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 39
BUILDING 9110 - REMEDIAL EXCAVATION DIAGRAM
 TETRA TECH EM INC.




TP-9111

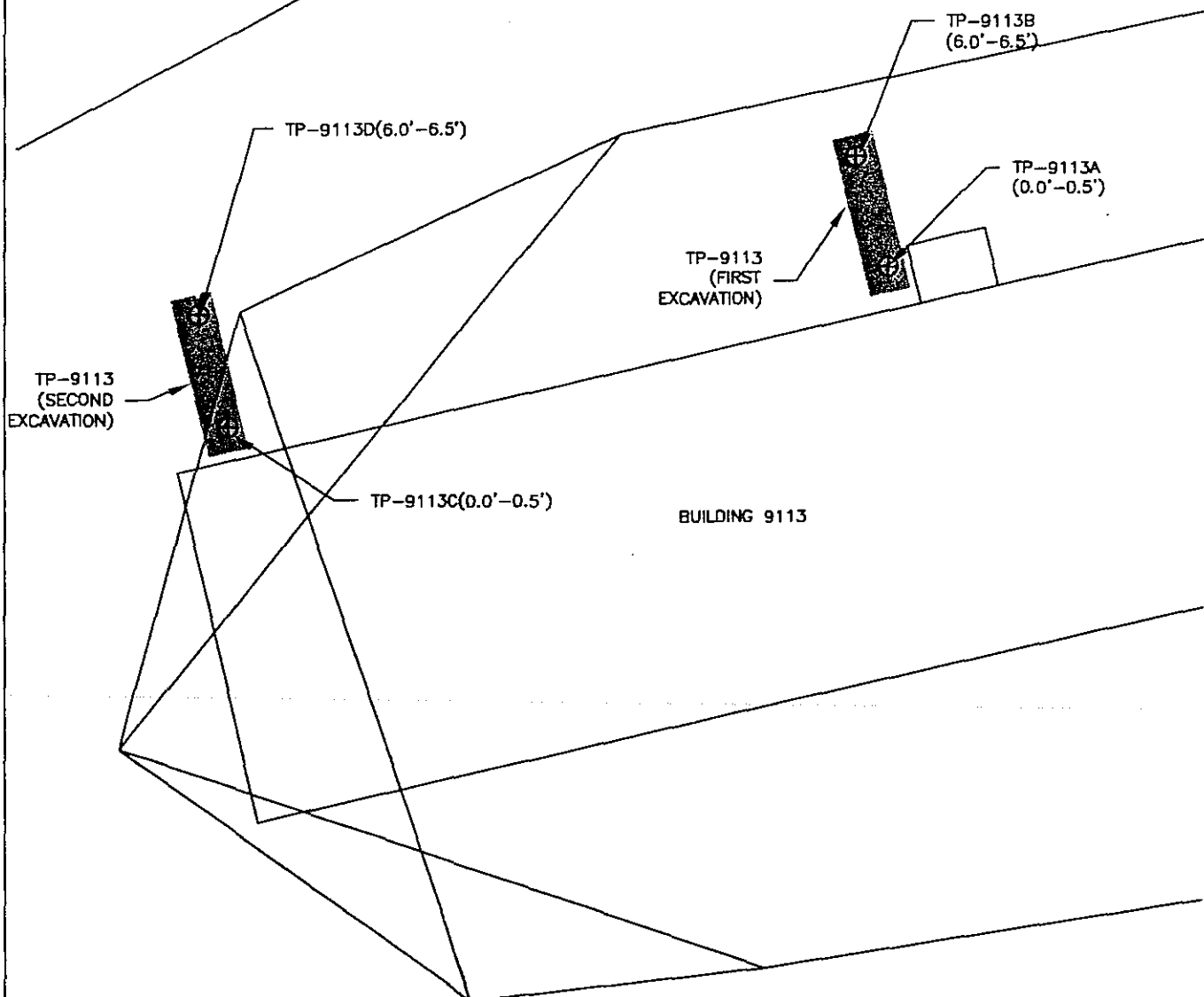
TP-9111A(6.0'-6.5')


TP-9111B
(0.0'-0.5')

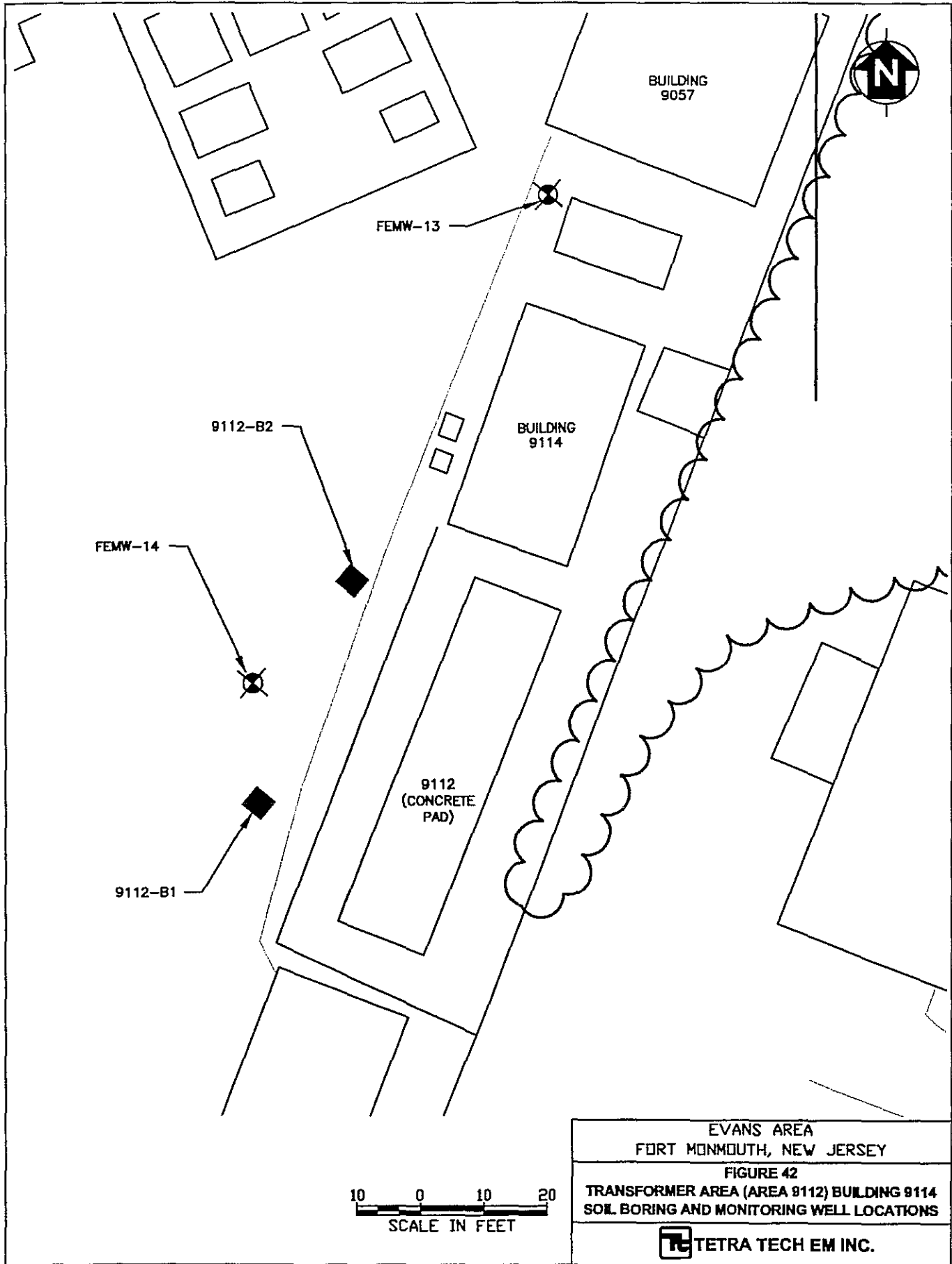
BUILDING 9111

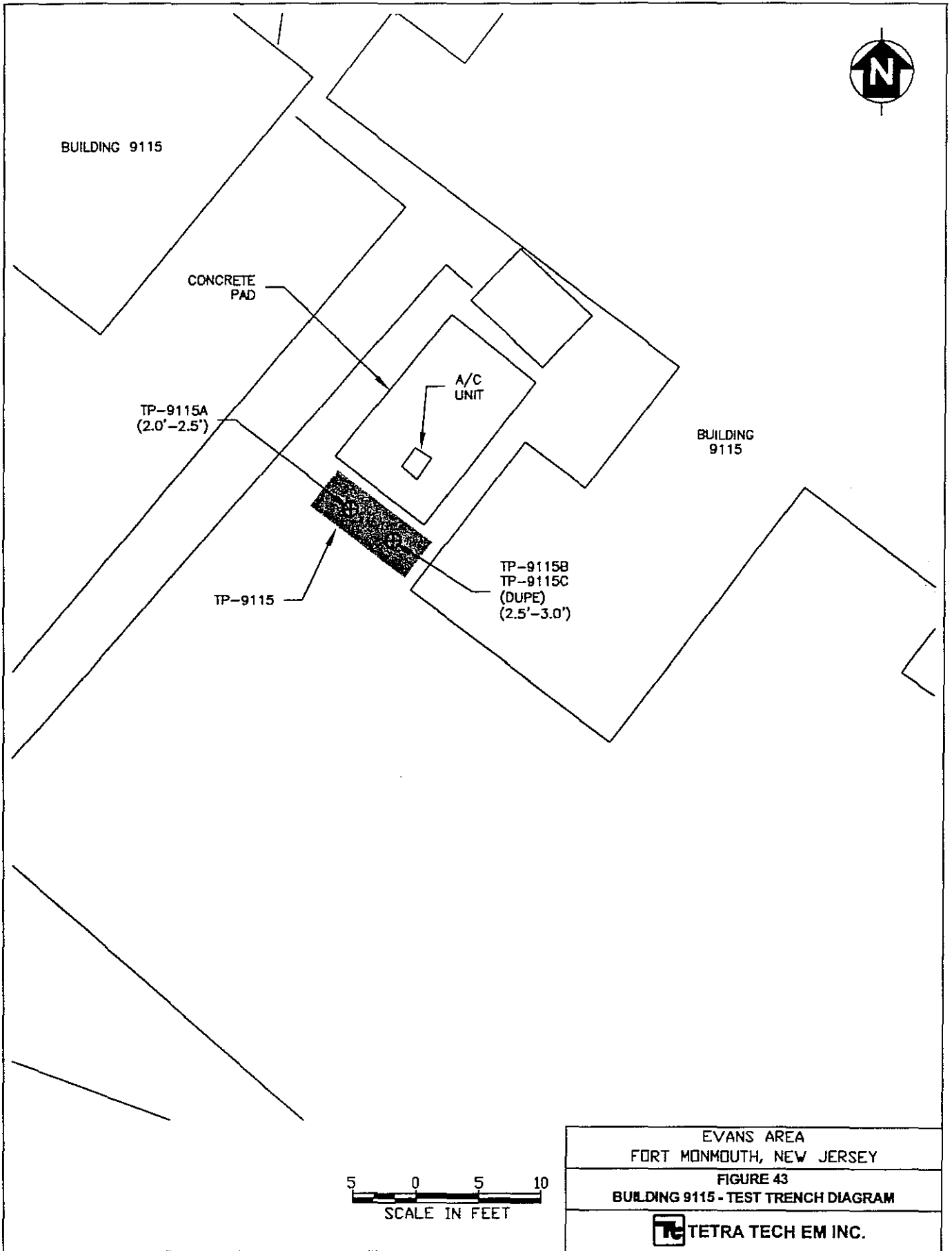


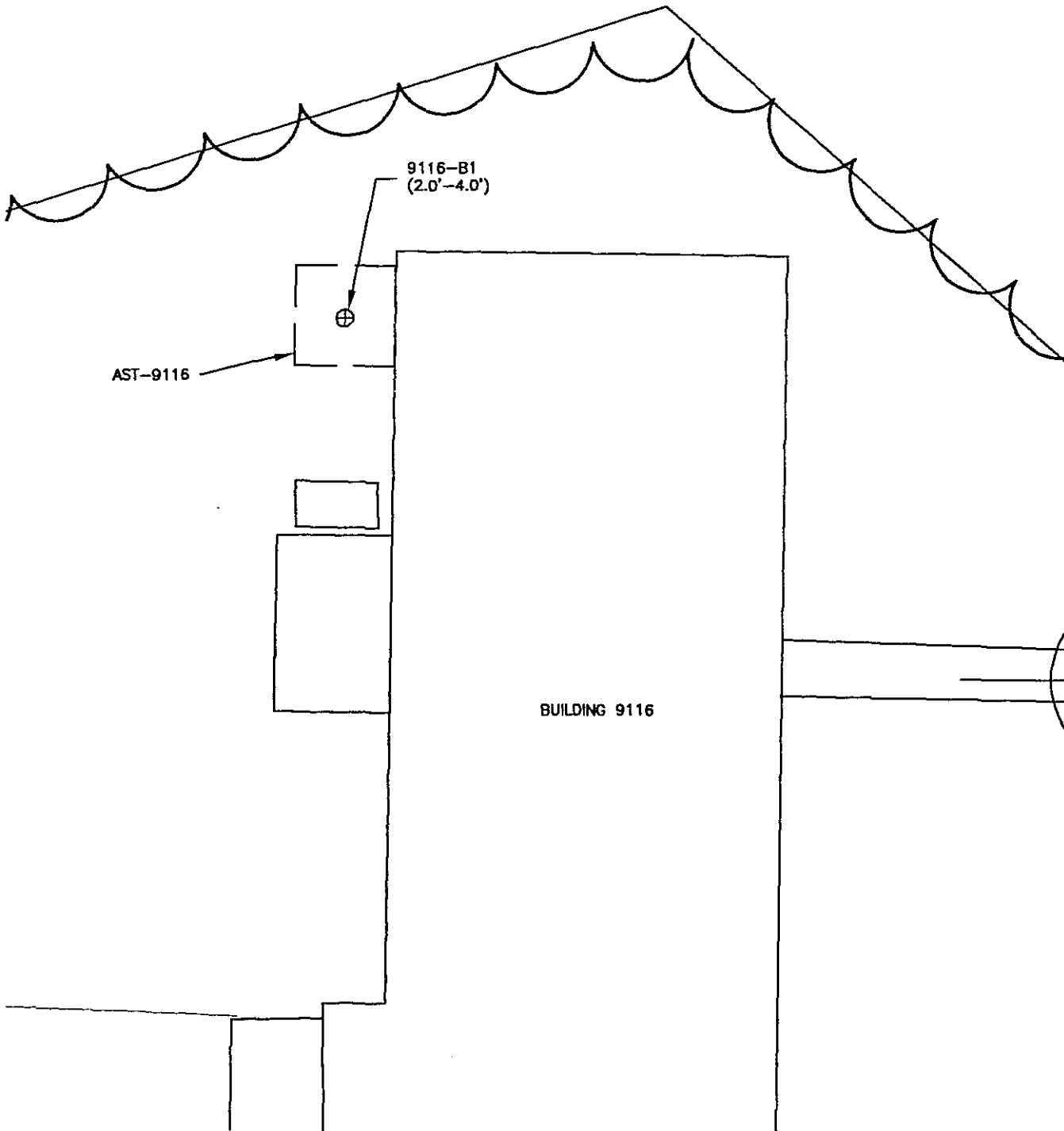
EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 40 BUILDING 9111 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 41 BUILDING 9113 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.







AST-9116

9116-B1
(2.0'-4.0')

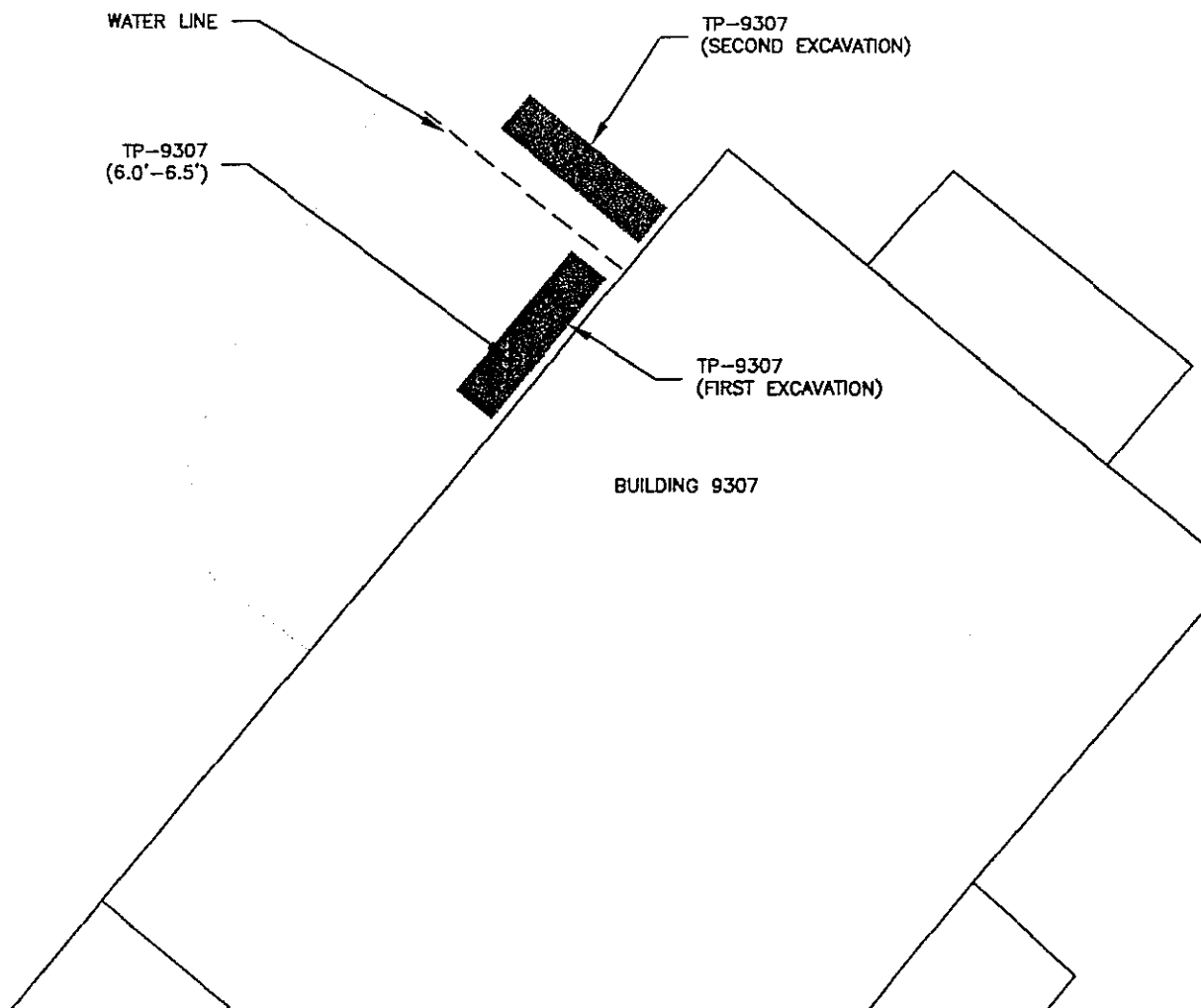
BUILDING 9116




EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 44
BUILDING 9116 - GEOPROBE BORING LOCATION
(FOR AST-9116)

 TETRA TECH EM INC.



EVANS AREA FORT MONMOUTH, NEW JERSEY
FIGURE 45 BUILDING 9307 - TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



AST-9307
LOCATION
(NEVER USED)



9307-AST1
9307-AST2
(DUPE)
(3.0'-3.5')

BUILDING 9307



EVANS AREA
FORT MONMOUTH, NEW JERSEY

FIGURE 46
BUILDING 9307 - HAND COLLECTION
SAMPLE LOCATIONS (FOR AST-9307)

 TETRA TECH EM INC.



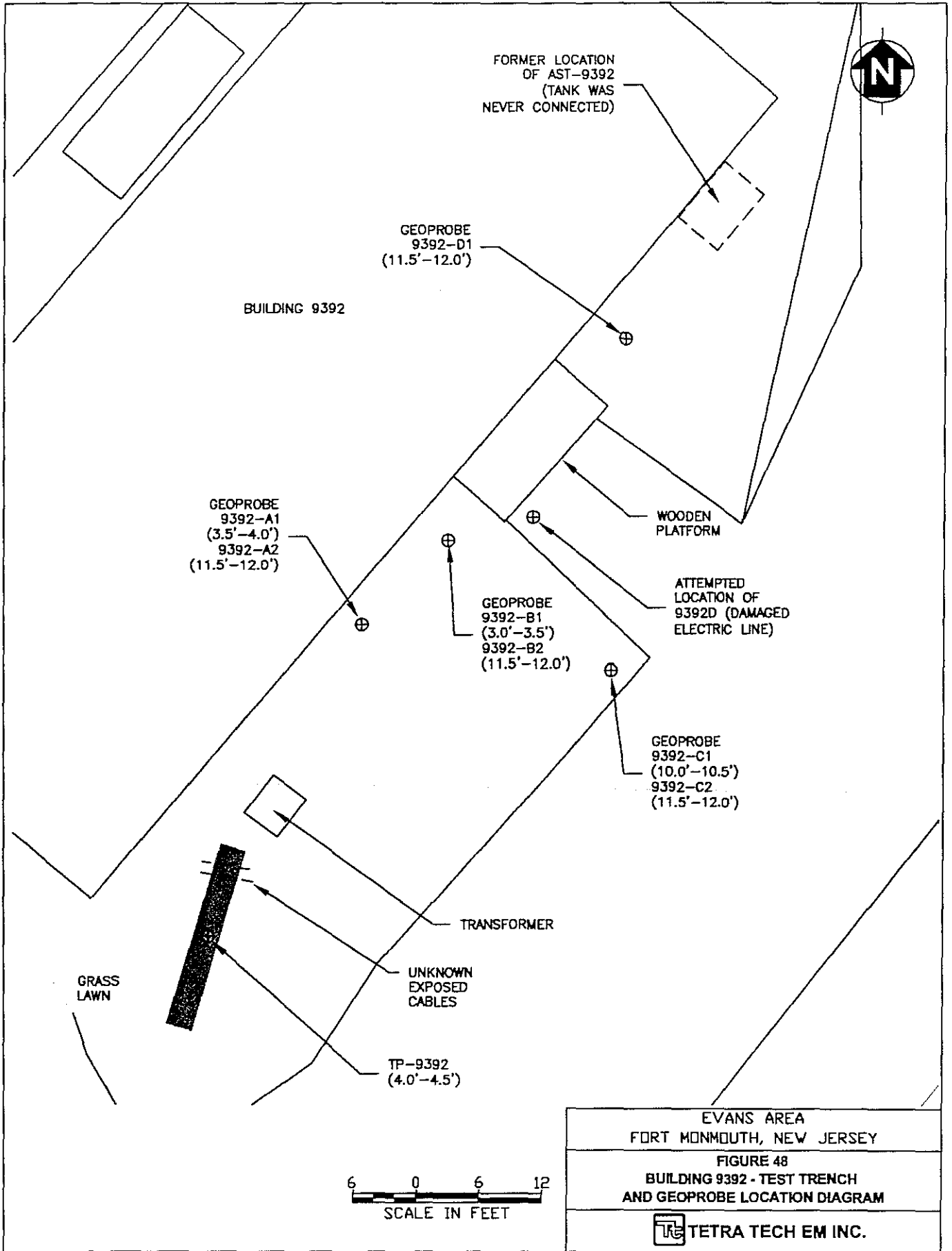
BUILDING 9307

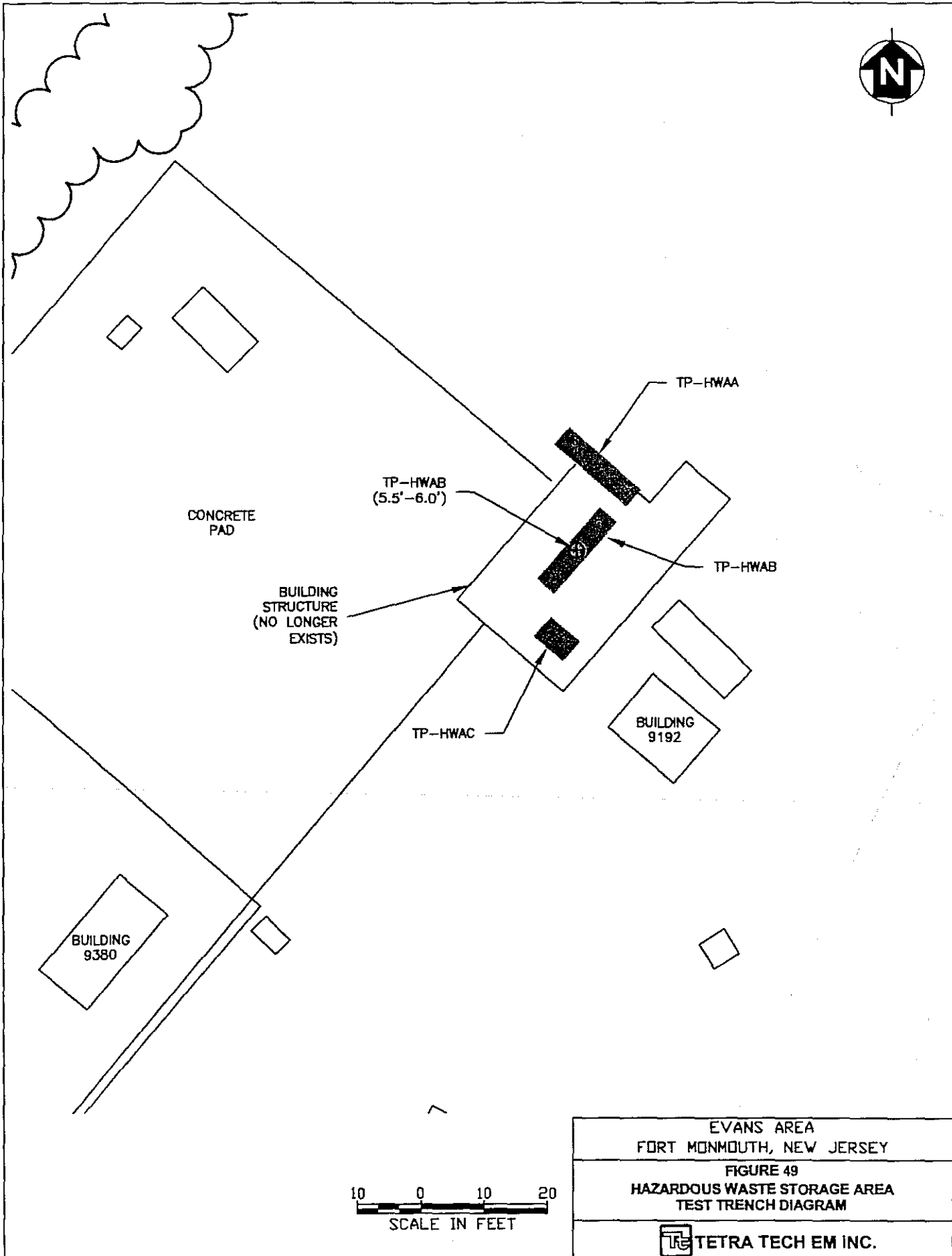
9307-A1
(0.5'-1.0')
9307-A2
(11.5'-12.0')



EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 47
BUILDING 9307 - GEOPROBE SAMPLE LOCATION
(FOR AST-9307)

 TETRA TECH EM INC.





CONCRETE PAD

TP-HWAB (5.5'-6.0')

BUILDING STRUCTURE (NO LONGER EXISTS)

TP-HWAC


TP-HWAA

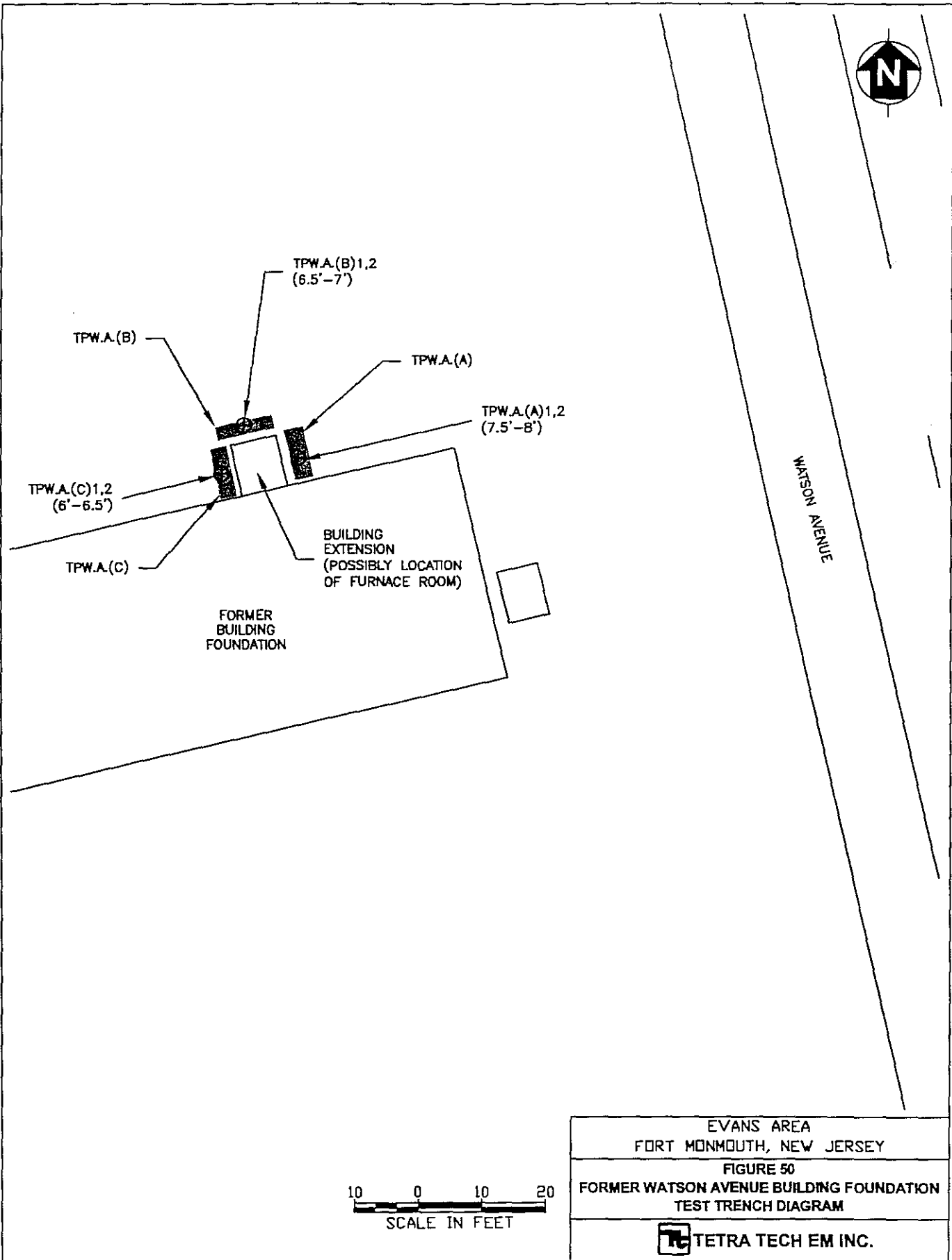
TP-HWAB


BUILDING 9192

BUILDING 9380

10 0 10 20
SCALE IN FEET

EVANS AREA
FORT MONMOUTH, NEW JERSEY
FIGURE 49
HAZARDOUS WASTE STORAGE AREA
TEST TRENCH DIAGRAM
 TETRA TECH EM INC.



EVANS AREA
 FORT MONMOUTH, NEW JERSEY
 FIGURE 50
 FORMER WATSON AVENUE BUILDING FOUNDATION
 TEST TRENCH DIAGRAM
 TETRA TECH EM INC.

APPENDIX A

SIGNED SITE ASSESSMENT SUMMARY FORM

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: US Army, Fort Monmouth, Evans Area

Facility Street Address: Building 1207, DCSOPS-BID

Municipality: Wall Township County : Monmouth

Block: 240, 241 and 242 Lot(s): 240 (55.01, 55.02, 55.03 & 55.04), 241 (1), 242 (1.01 & 1.02)

Telephone Number : (732) 239-2427

B. Owner (RP)'s Name: US Army, CECOM

Street Address: DCSOPS-BID, Bldg. 1207 City : Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-5052

C. (Check as appropriate)

- Site Investigation

Report (SIR) \$500 Fee

- Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager : Mr. Ian Curtis
- UST Registration Number : (7 digits): ~~90029~~ N/A
- Incident Report Number (10 or 12 digits): _____
- Tank Closure Number C(N)9 (7 characters): Approved by Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E : Yes

Name: Kevin J. Phelan Signature: Kevin J. Phelan UST Cert. No.: 0018436

Firm: Tetra Tech EM, Inc. Firm's UST Cert. Number: US00457

Firm Address: 1 Bank Street, Suite 103 City: Rockaway

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

State: NJ Zip: 07866 Telephone Number : (973) 9830507, Ext. 230

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

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

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

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

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

Name (Print or Type): Mr. Charles Appleby

Title: BRAC Environmental Coordinator, Evans Area

NJDEP Subsurface Evaluator # 2056

Signature: _____

Company Name: US Army, CECOM, DCSOPS-BID, Fort Monmouth NJ, 07703

Date: November 30, 2000

APPENDIX B

PHOTOGRAPHS OF EXPLORATORY TEST TRENCH LOCATIONS



PHOTO 1: View of TP-9043 (Excavation C) where copper tubing with traces of fuel oil/gasoline was found (looking north).



PHOTO 2: View of former AST location at Building 9004 prior to excavation of test trenches (looking south/southwest).



PHOTO 3: View of remedial excavation at Building 9004 to remove contamination caused by a former aboveground storage tank (AST) (looking east/southeast).



PHOTO 4: View of remedial excavation at Building 9090 to remove contamination caused by a former UST that had been removed previously (looking north).

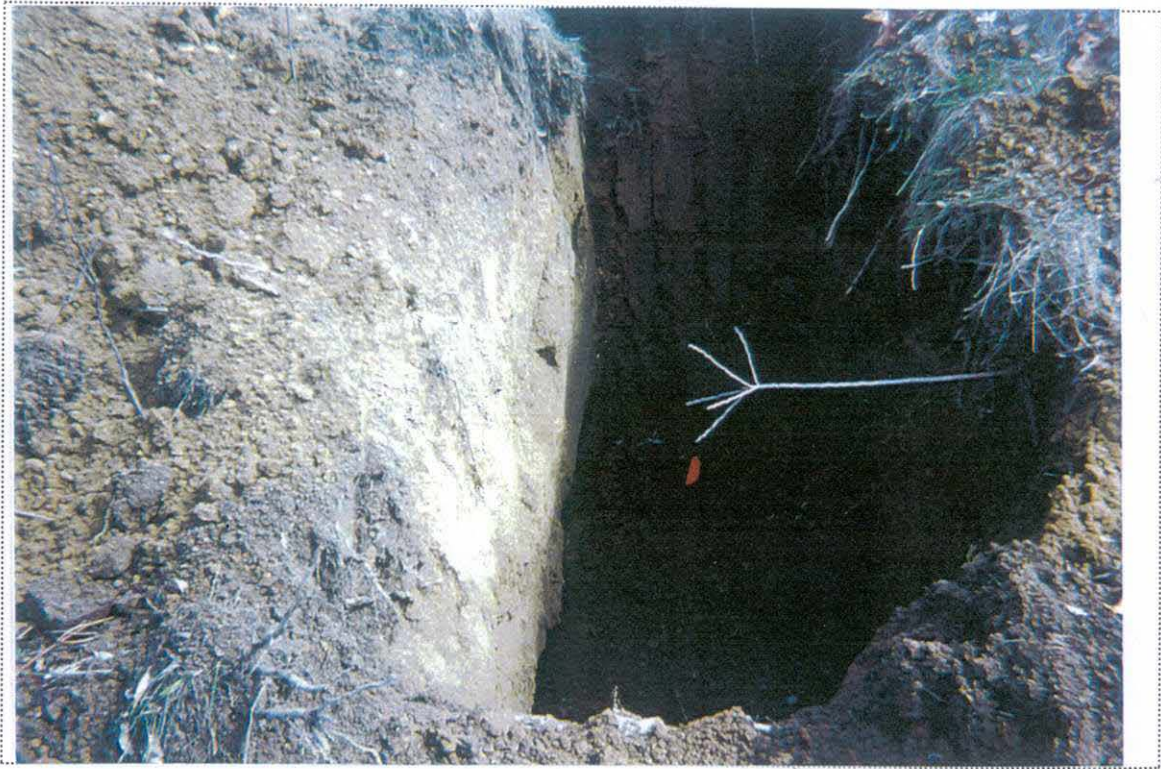


PHOTO 5: View of exploratory test trench adjacent to a former building pad along Watson Avenue (looking south).

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA PACKAGE


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

Client:	U.S. Army	Lab. ID #:	2946
	DPW. SELFM-PW-EV	Date Rec'd:	29-Aug-97
	Bldg. 173	Analysis Start:	02-Sep-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	03-Sep-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	BLDGS. 9006, 9092 9030, 9027

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
2946.01	TP-9006	1.00	15.99	89.18	165	ND
2946.02	TP-9092	1.00	15.34	80.30	191	ND
2946.03	TP-9030	1.00	16.06	85.02	172	ND
2946.04	TP-9027	1.00	16.27	90.75	159	ND
METHOD BLANK	2-Sep-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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

Client :	U.S. Army	Lab. ID # :	2948
	DPW. SELFM-PW-EV	Date Rec'd:	02-Sep-97
	Bldg. 173	Analysis Start:	03-Sep-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	04-Sep-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	BLDGS. 9021, 9019 9392, 9110

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
2948.01	TP-9021	1.00	15.54	94.00	161	ND
2948.02	TP-9019	1.00	16.35	89.42	161	ND
2948.03	TP-9392	1.00	16.84	90.84	154	ND
2948.04	TP-9110A	1.00	16.30	91.14	158	ND
2948.05	TP-9110B	1.00	15.76	87.30	171	10769.86
METHOD BLANK	3-Sep-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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


Client : U.S. Army Lab. ID # : 2968
 DPW. SELFM-PW-EV Date Rec'd: 05-Sep-97
 Bldg. 173 Analysis Start: 10-Sep-97
 Ft. Monmouth, NJ 07703 Analysis Complete: 10-Sep-97

Analysis: OQA-QAM-025 UST Reg. #:
 Matrix: Soil Closure #:
 Analyst: D.DEINHARDT DICAR #:
 Ext. Meth: Shake Location #: BLDGS.
 9041, 9043
 9307, 9087

HAZ WASTE AREA

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
2968.01	TP-9041A	1.00	15.20	85.14	182	ND
2968.03	TP-9307	1.00	15.35	97.15	158	ND
2968.04	TP-HWAB	1.00	15.76	88.64	168	ND
2968.05	TP-9087(0-0.5)	1.00	15.64	89.11	169	ND
2968.06	TP-9087(6-6.5)	1.00	15.94	95.37	155	ND
2968.07	TP-9041B(5-5.5)	1.00	15.27	87.46	176	ND
METHOD BLANK	10-Sep-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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

Client :	U.S. Army	Lab. ID # :	2974
	DPW. SELFM-PW-EV	Date Rec'd:	09-Sep-97
	Bldg. 173	Analysis Start:	10-Sep-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	12-Sep-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	BLDGS. 9061

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
2974.01	TP-9061A	1.00	15.94	94.11	157	889.01
2974.02	TP-9061B	1.00	15.43	91.02	167	ND
2974.03	TP-9061C	1.00	15.05	90.27	173	ND
2974.04	TP-9061D	1.00	15.49	91.69	165	ND
2974.05	TP-9061E	1.00	15.78	90.76	164	ND
METHOD BLANK	10-Sep-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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


Client :	U.S. Army	Lab. ID # :	3018
	DPW. SELFM-PW-EV	Date Rec'd:	01-Oct-97
	Bldg. 173	Analysis Start:	01-Oct-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	02-Oct-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	9019, 9392

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3018.01	9019-A1	1.00	15.13	86.44	180	ND
3018.02	9019-A2	1.00	15.57	93.57	161	ND
3018.03	9019-B1	1.00	15.22	84.33	183	240.82
3018.04	9019-B2	1.00	15.74	92.55	161	ND
3018.05	9019-B3	1.00	15.61	87.25	173	ND
3018.06	9019-B4	1.00	15.62	96.96	155	ND
3018.07	9019-C1	1.00	15.72	84.34	177	1582.52
3018.08	9019-C2	1.00	15.67	90.34	166	452.57
3018.09	9019-C3	1.00	15.46	91.23	167	ND
3018.10	9019-D1	1.00	15.00	95.97	163	ND
3018.11	9019-D2	1.00	15.12	87.18	178	ND
3018.12	9392-A1	1.00	15.09	84.30	185	ND
3018.13	9392-A2	1.00	15.79	92.93	160	ND
3018.14	9392-B1	1.00	15.11	82.47	189	ND
3018.15	9392-B2	1.00	15.80	96.62	154	ND
3018.16	9392-C1	1.00	15.75	97.08	154	ND
3018.17	9392-C2	1.00	16.06	96.49	152	ND
METHOD BLANK	1-Oct-97	1.00	15.00	100.00	157	ND

ND = Not Detected

MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

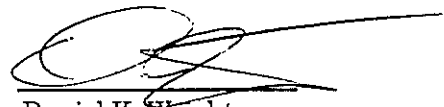
Report of Analysis
 U.S. Army, Fort Monmouth Environmental Laboratory
 NJDEP Certification # 13461

Client : U.S. Army Lab. ID # : 3068
 DPW. SELFM-PW-EV Date Rec'd: 15-Oct-97
 Bldg. 173 Analysis Start: 16-Oct-97
 Ft. Monmouth, NJ 07703 Analysis Complete: 18-Oct-97

Analysis: OQA-QAM-025 UST Reg. #:
 Matrix: Soil Closure #:
 Analyst: D.DEINHARDT DICAR #:
 Ext. Meth: Shake Location #: BLDG. 9061

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3068.01	9061-ASTB1	1.00	15.62	90.58	166	ND
3068.02	9061-ASTB2	1.00	15.25	90.95	169	ND
3068.03	9061-ASTN	1.00	15.17	90.88	170	ND
3068.04	9061-ASTW	1.00	15.22	91.97	168	ND
3068.05	9061-ASTS	1.00	15.26	93.35	165	ND
3068.06	9061-ASTE	1.00	15.65	92.62	162	205.20
METHOD BLANK	16-Oct-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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

Client :	U.S. Army	Lab. ID # :	3106
	DPW. SELFM-PW-EV	Date Rec'd:	24-Oct-97
	Bldg. 173	Analysis Start:	25-Oct-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	25-Oct-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	BLDG 9004

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3106.01	9004-DEL1	1.00	15.65	69.09	217	1756.63
3106.03	9004-B1	1.00	15.50	84.21	180	ND
3106.04	9004-B2	1.00	15.67	80.86	185	ND
3106.05	9004-B3	1.00	15.33	64.76	237	340.63
3106.06	9004-SD1	1.00	15.64	80.21	187	237.68
3106.08	9004-SW1	1.00	15.28	84.25	183	257.27
3106.09	9004-SW2	1.00	15.36	82.46	186	1222.32
3106.10	9004-SW3	1.00	15.07	80.98	193	247.19
3106.11	9004-SW4	1.00	15.45	82.33	185	214.44
METHOD BLANK	24-Oct-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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

Client :	U.S. Army	Lab. ID # :	3112
	DPW. SELFM-PW-EV	Date Rec'd:	28-Oct-97
	Bldg. 173	Analysis Start:	29-Oct-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	29-Oct-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	BLDG. 9004

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3112.01	9004-SW5	1.00	15.53	78.07	194	266.86
3112.02	9004-SW6	1.00	15.95	78.01	189	272.50
METHOD BLANK	29-Oct-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director


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

Client :	U.S. Army	Lab. ID # :	3114
	DPW. SELFM-PW-EV	Date Rec'd:	29-Oct-97
	Bldg. 173	Analysis Start:	29-Oct-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	30-Oct-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Ext. Meth:	Shake	Location #:	BLDG. 9064 9041, 9033

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3114.01	BL. 9064 B1	1.00	15.59	97.64	154	ND
3114.02	BL. 9064 B2	1.00	15.38	86.26	177	ND
3114.03	BL. 9064 B3	1.00	15.26	97.87	157	ND
3114.04	BL. 9041 B1	1.00	15.61	97.30	155	ND
3114.05	BL. 9041 B2	1.00	15.42	98.28	155	ND
3114.06	BL. 9041 B3	1.00	15.04	93.21	168	ND
3114.07	BL. 9033 B2	1.00	15.44	96.66	157	ND
METHOD BLANK	29-Oct-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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

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

Lab. ID # : 3129
 Date Rec'd: 31-Oct-97
 Analysis Start: 03-Nov-97
 Analysis Complete: 04-Nov-97

Analysis: OQA-QAM-025
 Matrix: Soil
 Analyst: D.DEINHARDT
 Ext. Meth: Shake

UST Reg. #:
 Closure #:
 DICAR #:
 Location #: CAMP EVANS
 9116, 9001
 9012, 9028, 9038

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3129.01	9116-B1	1.00	15.72	97.38	154	ND
3129.02	9001-B1	1.00	15.10	86.93	179	ND
3129.03	9012-B1	1.00	15.29	97.37	158	ND
3129.04	9012-B2	1.00	15.16	96.15	161	ND
3129.05	9028-B1	1.00	15.06	86.22	181	ND
3129.06	9028-B2	1.00	15.82	93.58	159	ND
3129.07	9038-B1	1.00	15.34	87.65	175	ND
3129.08	9038-B1A	1.00	15.89	87.63	169	ND
3129.09	9038-B2	1.00	15.04	85.68	182	ND
3129.10	9038-B3	1.00	15.56	87.95	172	ND
3129.11	9038-B4	1.00	15.62	87.42	172	ND
3129.12	9038-B5	1.00	15.50	87.37	174	ND
3129.13	9038-B6	1.00	15.27	82.76	186	ND
3129.14	9012-B3	1.00	15.43	85.17	179	ND
METHOD BLANK	3-Nov-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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


Client : U.S. Army Lab. ID #: 3194
 DPW. SELFM-PW-EV Date Rec'd: 03-Dec-97
 Bldg. 173 Analysis Start: 04-Dec-97
 Ft. Monmouth, NJ 07703 Analysis Complete: 05-Dec-97

Analysis: OQA-QAM-025 UST Reg. #:
 Matrix: Soil Closure #:
 Analyst: D.DEINHARDT DICAR #:
 Ext. Meth: Shake Location #: BLDGS.
 9028, 9019
 9091

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3194.01	9028(A)-OBS1	1.00	15.39	86.90	176	ND
3194.02	9028(A)-OBS2	1.00	15.35	92.06	166	ND
3194.03	9028(A)-E1	1.00	15.39	91.66	167	ND
3194.04	9028(A)-E2	1.00	15.28	91.55	168	ND
3194.05	9028(A)-N	1.00	15.76	85.51	174	ND
3194.06	9028(A)-S	1.00	15.57	89.27	169	ND
3194.07	9028(A)-W	1.00	15.31	94.91	162	ND
3194.08	9028(A)-DS	1.00	15.55	96.48	157	ND
3194.09	9028(A)-OBS3	1.00	15.85	86.58	171	ND
3194.10	9028(A)-RF	1.00	15.45	87.27	174	ND
3194.11	9019-RF1	1.00	15.84	89.34	166	389.36
3194.12	9019-RF2	1.00	15.37	87.92	174	327.07
3194.13	9091 9019 (A)-A1	1.00	15.07	87.13	179	902.43
3194.14	9091 9019 (A)-A2	1.00	15.75	87.14	171	ND
3194.15	9091 9019 (B)-B1	1.00	15.71	97.14	154	ND
3194.16	9091 9019 (B)-B2	1.00	15.47	79.04	192	ND
3194.17	9091 9019 (C)-C1	1.00	15.47	94.86	160	ND
3194.18	9091 9019 (D)-D1	1.00	15.13	96.25	161	ND
METHOD BLANK	4-Dec-97	1.00	15.00	100.00	157	ND

ND = Not Detected

MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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

Client : U.S. Army Lab. ID # : 3206
 DPW. SELFM-PW-EV Date Rec'd: 10-Dec-97
 Bldg. 173 Analysis Start: 10-Dec-97
 Ft. Monmouth, NJ 07703 Analysis Complete: 11-Dec-97

Analysis: OQA-QAM-025 UST Reg. #:
 Matrix: Soil Closure #:
 Analyst: D.DEINHARDT DICAR #:
 Ext. Meth: Shake Location #: BLDGS. 9019
 9090, 9100

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3206.01	9019-EL1	1.00	15.31	84.44	182	3164.29
3206.02	9019-B4	1.00	15.39	98.60	155	ND
3206.03	9019-B5	1.00	15.09	96.02	162	ND
3206.04	9019-W2	1.00	15.19	88.84	174	ND
3206.05	9019-N2	1.00	15.51	84.04	180	ND
3206.06	9019-S2	1.00	15.24	85.59	180	ND
3206.07	9019-E2	1.00	15.14	93.86	165	ND
3206.08	9090-OBS1	1.00	15.04	88.17	177	244.42
3206.09	9090-OBS2	1.00	15.90	88.59	167	228.92
3206.10	9100-OBS1	1.00	15.07	93.93	166	ND
3206.11	9100-OBS2	1.00	15.75	90.31	165	ND
METHOD BLANK	10-Dec-97	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

TP9043E

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3010 Location: Evans SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 3010.10
 Sample wt/vol: 12.8 (g/ml) G Lab File ID: V02038.D
 Level: (low/med) MED Date Received: 09/23/97
 % Moisture: not dec. 0 Date Analyzed: 09/25/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1400	U
107131	Acrylonitrile	1400	U
75650	tert-Butyl alcohol	2500	U
1634044	Methyl-tert-Butyl ether	590	U
108203	Di-isopropyl ether	390	U
	Dichlorodifluoromethane	780	U
74-87-3	Chloromethane	200	U
75-01-4	Vinyl Chloride	590	U
74-83-9	Bromomethane	390	U
75-00-3	Chloroethane	590	U
75-69-4	Trichlorofluoromethane	390	U
75-35-4	1,1-Dichloroethene	200	U
67-64-1	Acetone	390	U
75-15-0	Carbon Disulfide	200	U
75-09-2	Methylene Chloride	390	U
156-60-5	trans-1,2-Dichloroethene	390	U
75-35-3	1,1-Dichloroethane	200	U
108-05-4	Vinyl Acetate	590	U
78-93-3	2-Butanone	590	U
	cis-1,2-Dichloroethene	200	U
67-66-3	Chloroform	200	U
75-55-6	1,1,1-Trichloroethane	200	U
56-23-5	Carbon Tetrachloride	390	U
71-43-2	Benzene	200	U
107-06-2	1,2-Dichloroethane	390	U
79-01-6	Trichloroethene	200	U
78-87-5	1,2-Dichloropropane	200	U
75-27-4	Bromodichloromethane	200	U
110-75-8	2-Chloroethyl vinyl ether	390	U
10061-01-5	cis-1,3-Dichloropropene	200	U
108-10-1	4-Methyl-2-Pentanone	390	U
108-88-3	Toluene	200	U
10061-02-6	trans-1,3-Dichloropropene	390	U
79-00-5	1,1,2-Trichloroethane	390	U
127-18-4	Tetrachloroethene	200	U
591-78-6	2-Hexanone	390	U
126-48-1	Dibromochloromethane	390	U
108-90-7	Chlorobenzene	200	U
100-41-4	Ethylbenzene	390	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

TP9043E

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3010 Location: Evans SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 3010.10
 Sample wt/vol: 12.8 (g/ml) G Lab File ID: V02038.D
 Level: (low/med) MED Date Received: 09/23/97
 % Moisture: not dec. 0 Date Analyzed: 09/25/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	590	U
1330-20-7	o-Xylene	390	U
100-42-5	Styrene	390	U
75-25-2	Bromoform	390	U
79-34-5	1,1,2,2-Tetrachloroethane	390	U
541-73-1	1,3-Dichlorobenzene	590	U
106-46-7	1,4-Dichlorobenzene	590	U
95-50-1	1,2-Dichlorobenzene	590	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

TP9043G

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3010 Location: Evans SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 3010.12
 Sample wt/vol: 11.5 (g/ml) G Lab File ID: V02042.D
 Level: (low/med) MED Date Received: 09/23/97
 % Moisture: not dec. 0 Date Analyzed: 09/25/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

107028	Acrolein	1500	U
107131	Acrylonitrile	1500	U
75650	tert-Butyl alcohol	2800	U
1634044	Methyl-tert-Butyl ether	650	U
108203	Di-isopropyl ether	430	U
	Dichlorodifluoromethane	870	U
74-87-3	Chloromethane	220	U
75-01-4	Vinyl Chloride	650	U
74-83-9	Bromomethane	430	U
75-00-3	Chloroethane	650	U
75-69-4	Trichlorofluoromethane	430	U
75-35-4	1,1-Dichloroethene	220	U
67-64-1	Acetone	430	U
75-15-0	Carbon Disulfide	220	U
75-09-2	Methylene Chloride	430	U
156-60-5	trans-1,2-Dichloroethene	430	U
75-35-3	1,1-Dichloroethane	220	U
108-05-4	Vinyl Acetate	650	U
78-93-3	2-Butanone	650	U
	cis-1,2-Dichloroethene	220	U
67-66-3	Chloroform	220	U
75-55-6	1,1,1-Trichloroethane	220	U
56-23-5	Carbon Tetrachloride	430	U
71-43-2	Benzene	220	U
107-06-2	1,2-Dichloroethane	430	U
79-01-6	Trichloroethene	220	U
78-87-5	1,2-Dichloropropane	220	U
75-27-4	Bromodichloromethane	220	U
110-75-8	2-Chloroethyl vinyl ether	430	U
10061-01-5	cis-1,3-Dichloropropene	220	U
108-10-1	4-Methyl-2-Pentanone	430	U
108-88-3	Toluene	220	U
10061-02-6	trans-1,3-Dichloropropene	430	U
79-00-5	1,1,2-Trichloroethane	430	U
127-18-4	Tetrachloroethene	220	U
591-78-6	2-Hexanone	430	U
126-48-1	Dibromochloromethane	430	U
108-90-7	Chlorobenzene	220	U
100-41-4	Ethylbenzene	430	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

TP9043G

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3010 Location: Evans SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 3010.12
 Sample wt/vol: 11.5 (g/ml) G Lab File ID: V02042.D
 Level: (low/med) MED Date Received: 09/23/97
 % Moisture: not dec. 0 Date Analyzed: 09/25/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	650	U
1330-20-7	o-Xylene	430	U
100-42-5	Styrene	430	U
75-25-2	Bromoform	430	U
79-34-5	1,1,2,2-Tetrachloroethane	430	U
541-73-1	1,3-Dichlorobenzene	650	U
106-46-7	1,4-Dichlorobenzene	650	U
95-50-1	1,2-Dichlorobenzene	650	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

TB-13

Lab Name: FMETL NJDEP # 13461

Project: 971251 Case No.: 3010 Location: Evans SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 3010.13

Sample wt/vol: 10.0 (g/ml) G Lab File ID: V02037.D

Level: (low/med) MED Date Received: 09/23/97

% Moisture: not dec. 0 Date Analyzed: 09/25/97

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

TB-13

Lab Name: FMETL NJDEP # 13461

Project: 971251 Case No.: 3010 Location: Evans SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 3010.13

Sample wt/vol: 10.0 (g/ml) G Lab File ID: V02037.D

Level: (low/med) MED Date Received: 09/23/97

% Moisture: not dec. 0 Date Analyzed: 09/25/97

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	750	U
1330-20-7	o-Xylene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
541-73-1	1,3-Dichlorobenzene	750	U
106-46-7	1,4-Dichlorobenzene	750	U
95-50-1	1,2-Dichlorobenzene	750	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

(1.5'-2')

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3106 Location: B9004 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 3106.02
 Sample wt/vol: 11.3 (g/ml) G Lab File ID: V02304.D
 Level: (low/med) MED Date Received: 10/24/97
 % Moisture: not dec. 0 Date Analyzed: 10/24/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

71-43-2	Benzene	220	U
108-88-3	Toluene	220	U
100-41-4	Ethylbenzene	440	U
1330-20-7	m+p-Xylenes	660	U
1330-20-7	o-Xylene	440	U
107028	Acrolein	1600	U
107131	Acrylonitrile	1600	U
75650	tert-Butyl alcohol	2900	U
1634044	Methyl-tert-Butyl ether	660	U
108203	Di-isopropyl ether	440	U
	Dichlorodifluoromethane	890	U
74-87-3	Chloromethane	220	U
75-01-4	Vinyl Chloride	660	U
74-83-9	Bromomethane	440	U
75-00-3	Chloroethane	660	U
75-69-4	Trichlorofluoromethane	440	U
75-35-4	1,1-Dichloroethene	220	U
67-64-1	Acetone	440	U
75-15-0	Carbon Disulfide	220	U
75-09-2	Methylene Chloride	440	U
156-60-5	trans-1,2-Dichloroethene	440	U
75-35-3	1,1-Dichloroethane	220	U
108-05-4	Vinyl Acetate	660	U
78-93-3	2-Butanone	660	U
	cis-1,2-Dichloroethene	220	U
67-66-3	Chloroform	220	U
75-55-6	1,1,1-Trichloroethane	220	U
56-23-5	Carbon Tetrachloride	440	U
107-06-2	1,2-Dichloroethane	440	U
79-01-6	Trichloroethene	220	U
78-87-5	1,2-Dichloropropane	220	U
75-27-4	Bromodichloromethane	220	U
110-75-8	2-Chloroethyl vinyl ether	440	U
10061-01-5	cis-1,3-Dichloropropene	220	U
108-10-1	4-Methyl-2-Pentanone	440	U
10061-02-6	trans-1,3-Dichloropropene	440	U
79-00-5	1,1,2-Trichloroethane	440	U
127-18-4	Tetrachloroethene	220	U
591-78-6	2-Hexanone	440	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

(1.5'-2')

Lab Name: FMETL NJDEP # 13461

Project: 971251 Case No.: 3106 Location: B9004 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 3106.02

Sample wt/vol: 11.3 (g/ml) G Lab File ID: V02304.D

Level: (low/med) MED Date Received: 10/24/97

% Moisture: not dec. 0 Date Analyzed: 10/24/97

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

126-48-1	Dibromochloromethane	440	U
108-90-7	Chlorobenzene	220	U
100-42-5	Styrene	440	U
75-25-2	Bromoform	440	U
79-34-5	1,1,2,2-Tetrachloroethane	440	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
95-50-1	1,2-Dichlorobenzene	660	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

(3.5'-4')

Lab Name: FMETL NJDEP # 13461
 Project: 971251 Case No.: 3106 Location: B9004 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 3106.07
 Sample wt/vol: 11.2 (g/ml) G Lab File ID: V02305.D
 Level: (low/med) MED Date Received: 10/24/97
 % Moisture: not dec. 0 Date Analyzed: 10/24/97
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
71-43-2	Benzene	220		U
108-88-3	Toluene	220		U
100-41-4	Ethylbenzene	450		U
1330-20-7	m+p-Xylenes	670		U
1330-20-7	o-Xylene	450		U
107028	Acrolein	1600		U
107131	Acrylonitrile	1600		U
75650	tert-Butyl alcohol	2900		U
1634044	Methyl-tert-Butyl ether	670		U
108203	Di-isopropyl ether	450		U
	Dichlorodifluoromethane	900		U
74-87-3	Chloromethane	220		U
75-01-4	Vinyl Chloride	670		U
74-83-9	Bromomethane	450		U
75-00-3	Chloroethane	670		U
75-69-4	Trichlorofluoromethane	450		U
75-35-4	1,1-Dichloroethene	220		U
67-64-1	Acetone	450		U
75-15-0	Carbon Disulfide	220		U
75-09-2	Methylene Chloride	450		U
156-60-5	trans-1,2-Dichloroethene	450		U
75-35-3	1,1-Dichloroethane	220		U
108-05-4	Vinyl Acetate	670		U
78-93-3	2-Butanone	670		U
	cis-1,2-Dichloroethene	220		U
67-66-3	Chloroform	220		U
75-55-6	1,1,1-Trichloroethane	220		U
56-23-5	Carbon Tetrachloride	450		U
107-06-2	1,2-Dichloroethane	450		U
79-01-6	Trichloroethene	220		U
78-87-5	1,2-Dichloropropane	220		U
75-27-4	Bromodichloromethane	220		U
110-75-8	2-Chloroethyl vinyl ether	450		U
10061-01-5	cis-1,3-Dichloropropene	220		U
108-10-1	4-Methyl-2-Pentanone	450		U
10061-02-6	trans-1,3-Dichloropropene	450		U
79-00-5	1,1,2-Trichloroethane	450		U
127-18-4	Tetrachloroethene	220		U
591-78-6	2-Hexanone	450		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

(3.5'-4')

Lab Name: FMETL NJDEP # 13461

Project: 971251 Case No.: 3106 Location: B9004 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 3106.07

Sample wt/vol: 11.2 (g/ml) G Lab File ID: V02305.D

Level: (low/med) MED Date Received: 10/24/97

% Moisture: not dec. 0 Date Analyzed: 10/24/97

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

126-48-1	Dibromochloromethane	450	U
108-90-7	Chlorobenzene	220	U
100-42-5	Styrene	450	U
75-25-2	Bromoform	450	U
79-34-5	1,1,2,2-Tetrachloroethane	450	U
541-73-1	1,3-Dichlorobenzene	670	U
106-46-7	1,4-Dichlorobenzene	670	U
95-50-1	1,2-Dichlorobenzene	670	U

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

Data File Name V02347.D
 Operator Skelton
 Date Acquired 11/3/19 -1:1:

Sample Name 3112.03
 Field ID Trip Blank
 Sample Multiplier 1

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
107028	Acrolein			not detected	6.25 ug/L	na
107131	Acrylonitrile			not detected	6.25 ug/L	na
75650	tert-Butyl alcohol			not detected	12.50 ug/L	na
1634044	Methyl-tert-Butyl ether			not detected	2.50 ug/L	na
108203	Di-isopropyl ether			not detected	1.25 ug/L	na
	Dichlorodifluoromethane			not detected	3.63 ug/L	na
74-87-3	Chloromethane			not detected	0.79 ug/L	30
75-01-4	Vinyl Chloride			not detected	2.61 ug/L	5
74-83-9	Bromomethane			not detected	1.45 ug/L	10
75-00-3	Chloroethane			not detected	2.20 ug/L	na
75-69-4	Trichlorofluoromethane			not detected	1.31 ug/L	na
75-35-4	1,1-Dichloroethene			not detected	0.74 ug/L	2
67-64-1	Acetone			not detected	1.57 ug/L	700
75-15-0	Carbon Disulfide			not detected	0.54 ug/L	na
75-09-2	Methylene Chloride			not detected	1.66 ug/L	2
156-60-5	trans-1,2-Dichloroethene			not detected	0.50 ug/L	100
75-35-3	1,1-Dichloroethane			not detected	0.83 ug/L	70
108-05-4	Vinyl Acetate			not detected	2.07 ug/L	na
78-93-3	2-Butanone			not detected	2.06 ug/L	300
	cis-1,2-Dichloroethene			not detected	0.65 ug/L	10
67-66-3	Chloroform			not detected	0.43 ug/L	6
75-55-6	1,1,1-Trichloroethane			not detected	0.81 ug/L	30
56-23-5	Carbon Tetrachloride			not detected	1.20 ug/L	2
71-43-2	Benzene			not detected	0.51 ug/L	1
107-06-2	1,2-Dichloroethane			not detected	1.27 ug/L	2
79-01-6	Trichloroethene			not detected	0.94 ug/L	1
78-87-5	1,2-Dichloropropane			not detected	0.78 ug/L	1
75-27-4	Bromodichloromethane			not detected	0.77 ug/L	1
110-75-8	2-Chloroethyl vinyl ether			not detected	1.05 ug/L	na
10061-01-5	cis-1,3-Dichloropropene			not detected	0.60 ug/L	na
108-10-1	4-Methyl-2-Pentanone			not detected	1.33 ug/L	400
108-88-3	Toluene			not detected	0.73 ug/L	1000
10061-02-6	trans-1,3-Dichloropropene			not detected	1.43 ug/L	na
79-00-5	1,1,2-Trichloroethane			not detected	1.49 ug/L	3
127-18-4	Tetrachloroethene			not detected	0.92 ug/L	1
591-78-6	2-Hexanone			not detected	1.12 ug/L	na
126-48-1	Dibromochloromethane			not detected	1.36 ug/L	10
108-90-7	Chlorobenzene			not detected	0.66 ug/L	4
100-41-4	Ethylbenzene			not detected	1.14 ug/L	700
1330-20-7	m-p-Xylenes			not detected	2.53 ug/L	na
1330-20-7	o-Xylene			not detected	1.92 ug/L	na
100-42-5	Styrene			not detected	1.57 ug/L	100
75-25-2	Bromoform			not detected	1.68 ug/L	4
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1.71 ug/L	2
541-73-1	1,3-Dichlorobenzene			not detected	2.51 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	3.08 ug/L	74
95-50-1	1,2-Dichlorobenzene			not detected	2.75 ug/L	600

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

Data File Name V02348.D
 Operator Skelton
 Date Acquired 11/ 3/19 -1:2:

Sample Name 3112.04
 Field ID Field Blank
 Sample Multiplier 1

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
107028	Acrolein			not detected	6.25 ug/L	na
107131	Acrylonitrile			not detected	6.25 ug/L	na
75650	tert-Butyl alcohol			not detected	12.50 ug/L	na
1634044	Methyl-tert-Butyl ether			not detected	2.50 ug/L	na
108203	Di-isopropyl ether			not detected	1.25 ug/L	na
	Dichlorodifluoromethane			not detected	3.63 ug/L	na
74-87-3	Chloromethane			not detected	0.79 ug/L	30
75-01-4	Vinyl Chloride			not detected	2.61 ug/L	5
74-83-9	Bromomethane			not detected	1.45 ug/L	10
75-00-3	Chloroethane			not detected	2.20 ug/L	na
75-69-4	Trichlorofluoromethane			not detected	1.31 ug/L	na
75-35-4	1,1-Dichloroethene			not detected	0.74 ug/L	2
67-64-1	Acetone			not detected	1.57 ug/L	700
75-15-0	Carbon Disulfide			not detected	0.54 ug/L	na
75-09-2	Methylene Chloride			not detected	1.66 ug/L	2
156-60-5	trans-1,2-Dichloroethene			not detected	0.50 ug/L	100
75-35-3	1,1-Dichloroethane			not detected	0.83 ug/L	70
108-05-4	Vinyl Acetate			not detected	2.07 ug/L	na
78-93-3	2-Butanone			not detected	2.06 ug/L	300
	cis-1,2-Dichloroethene			not detected	0.65 ug/L	10
67-66-3	Chloroform			not detected	0.43 ug/L	6
75-55-6	1,1,1-Trichloroethane			not detected	0.81 ug/L	30
56-23-5	Carbon Tetrachloride			not detected	1.20 ug/L	2
71-43-2	Benzene			not detected	0.51 ug/L	1
107-06-2	1,2-Dichloroethane			not detected	1.27 ug/L	2
79-01-6	Trichloroethene			not detected	0.94 ug/L	1
78-87-5	1,2-Dichloropropane			not detected	0.78 ug/L	1
75-27-4	Bromodichloromethane			not detected	0.77 ug/L	1
110-75-8	2-Chloroethyl vinyl ether			not detected	1.05 ug/L	na
10061-01-5	cis-1,3-Dichloropropene			not detected	0.60 ug/L	na
108-10-1	4-Methyl-2-Pentanone			not detected	1.33 ug/L	400
108-88-3	Toluene			not detected	0.73 ug/L	1000
10061-02-6	trans-1,3-Dichloropropene			not detected	1.43 ug/L	na
79-00-5	1,1,2-Trichloroethane			not detected	1.49 ug/L	3
127-18-4	Tetrachloroethene			not detected	0.92 ug/L	1
591-78-6	2-Hexanone			not detected	1.12 ug/L	na
126-48-1	Dibromochloromethane			not detected	1.36 ug/L	10
108-90-7	Chlorobenzene			not detected	0.66 ug/L	4
100-41-4	Ethylbenzene			not detected	1.14 ug/L	700
1330-20-7	m+p-Xylenes			not detected	2.53 ug/L	na
1330-20-7	o-Xylene			not detected	1.92 ug/L	na
100-42-5	Styrene			not detected	1.57 ug/L	100
75-25-2	Bromoform			not detected	1.68 ug/L	4
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1.71 ug/L	2
541-73-1	1,3-Dichlorobenzene			not detected	2.51 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	3.08 ug/L	74
95-50-1	1,2-Dichlorobenzene			not detected	2.75 ug/L	600

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

Data File Name v02331.d
 Operator Skelton
 Date Acquired 10/31/19 -1:2:

Sample Name 3112.05
 Field ID 9004-EWS
 Sample Multiplier 1

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
107028	Acrolein			not detected	6.25 ug/L	na
107131	Acrylonitrile			not detected	6.25 ug/L	na
75650	tert-Butyl alcohol			not detected	12.50 ug/L	na
1634044	Methyl-tert-Butyl ether			not detected	2.50 ug/L	na
108203	Di-isopropyl ether			not detected	1.25 ug/L	na
	Dichlorodifluoromethane			not detected	3.63 ug/L	na
74-87-3	Chloromethane			not detected	0.79 ug/L	30
75-01-4	Vinyl Chloride			not detected	2.61 ug/L	5
74-83-9	Bromomethane			not detected	1.45 ug/L	10
75-00-3	Chloroethane			not detected	2.20 ug/L	na
75-69-4	Trichlorofluoromethane			not detected	1.31 ug/L	na
75-35-4	1,1-Dichloroethene			not detected	0.74 ug/L	2
67-64-1	Acetone			not detected	1.57 ug/L	700
75-15-0	Carbon Disulfide			not detected	0.54 ug/L	na
75-09-2	Methylene Chloride			not detected	1.66 ug/L	2
156-60-5	trans-1,2-Dichloroethene			not detected	0.50 ug/L	100
75-35-3	1,1-Dichloroethane			not detected	0.83 ug/L	70
108-05-4	Vinyl Acetate			not detected	2.07 ug/L	na
78-93-3	2-Butanone			not detected	2.06 ug/L	300
	cis-1,2-Dichloroethene			not detected	0.65 ug/L	10
67-66-3	Chloroform			not detected	0.43 ug/L	6
75-55-6	1,1,1-Trichloroethane			not detected	0.81 ug/L	30
56-23-5	Carbon Tetrachloride			not detected	1.20 ug/L	2
71-43-2	Benzene			not detected	0.51 ug/L	1
107-06-2	1,2-Dichloroethane			not detected	1.27 ug/L	2
79-01-6	Trichloroethene			not detected	0.94 ug/L	1
78-87-5	1,2-Dichloropropane			not detected	0.78 ug/L	1
75-27-4	Bromodichloromethane			not detected	0.77 ug/L	1
110-75-8	2-Chloroethyl vinyl ether			not detected	1.05 ug/L	na
10061-01-5	cis-1,3-Dichloropropene			not detected	0.60 ug/L	na
108-10-1	4-Methyl-2-Pentanone			not detected	1.33 ug/L	400
108-88-3	Toluene			not detected	0.73 ug/L	1000
10061-02-6	trans-1,3-Dichloropropene			not detected	1.43 ug/L	na
79-00-5	1,1,2-Trichloroethane			not detected	1.49 ug/L	3
127-18-4	Tetrachloroethene			not detected	0.92 ug/L	1
591-78-6	2-Hexanone			not detected	1.12 ug/L	na
126-48-1	Dibromochloromethane			not detected	1.36 ug/L	10
108-90-7	Chlorobenzene			not detected	0.66 ug/L	4
100-41-4	Ethylbenzene			not detected	1.14 ug/L	700
1330-20-7	m+p-Xylenes			not detected	2.53 ug/L	na
1330-20-7	o-Xylene			not detected	1.92 ug/L	na
100-42-5	Styrene			not detected	1.57 ug/L	100
75-25-2	Bromoform			not detected	1.68 ug/L	4
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1.71 ug/L	2
541-73-1	1,3-Dichlorobenzene			not detected	2.51 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	3.08 ug/L	74
95-50-1	1,2-Dichlorobenzene			not detected	2.75 ug/L	600

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Trip Blank

Lab Name: FMETL Project 971251
 NJDEP # 13461 Case No.: 3112 Location B.9004 SDG No.: _____
 Matrix: (soil/water) WATER Lab Sample ID: 3112.03
 Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V02347.D
 Level: (low/med) LOW Date Received: 10/28/97
 % Moisture: not dec. _____ Date Analyzed: 11/03/97
 GC Column: RTX-502 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	RT	EST. CONC.	Q

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Field Blank

Lab Name: FMETL Project 971251
NJDEP # 13461 Case No.: 3112 Location B.9004 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 3112.04
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V02348.D
Level: (low/med) LOW Date Received: 10/28/97
% Moisture: not dec. _____ Date Analyzed: 11/03/97
GC Column: RTX-502 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	RT	EST. CONC.	Q
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

9004EWS

Lab Name: FMETL Project 971251
 NJDEP # 13461 Case No.: 3112 Location B.9004 SDG No.: _____
 Matrix: (soil/water) WATER Lab Sample ID: 3112.05
 Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V02331.D
 Level: (low/med) LOW Date Received: 10/28/97
 % Moisture: not dec. _____ Date Analyzed: 10/31/97
 GC Column: RTX-502 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	13.81	11	J

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

Data File Name **bn0665.d**
 Operator **Skelton**
 Date Acquired **11/ 5/97 12:34**

Sample Name **3112.04**
 Field ID **Field Blank**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
110-86-1	Pyridine			not detected	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	0.94 ug/L	20
62-53-3	Aniline			not detected	0.15 ug/L	
108-95-2	Phenol			not detected	0.47 ug/L	4000
111-44-4	bis(2-Chloroethyl)ether			not detected	0.48 ug/L	10
95-57-8	2-Chlorophenol			not detected	0.18 ug/L	40
541-73-1	1,3-Dichlorobenzene			not detected	0.15 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	0.23 ug/L	75
100-51-6	Benzyl alcohol			not detected	0.18 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	0.16 ug/L	600
	2-Methylphenol			not detected	0.14 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	0.61 ug/L	300
	4-Methylphenol			not detected	0.14 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	0.36 ug/L	20
67-72-1	Hexachloroethane			not detected	0.33 ug/L	10
98-95-3	Nitrobenzene			not detected	0.46 ug/L	10
78-59-1	Isophorone			not detected	0.35 ug/L	100
88-75-5	2-Nitrophenol			not detected	0.23 ug/L	
105-67-9	2,4-Dimethylphenol			not detected	0.27 ug/L	100
111-91-1	bis(2-Chloroethoxy)methane			not detected	0.46 ug/L	
120-83-2	2,4-Dichlorophenol			not detected	0.12 ug/L	20
65-85-0	Benzoic Acid			not detected	0.26 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	0.25 ug/L	9
91-20-3	Naphthalene			not detected	0.25 ug/L	
106-47-8	4-Chloroaniline			not detected	0.19 ug/L	
87-68-3	Hexachlorobutadiene			not detected	0.38 ug/L	1
59-50-7	4-Chloro-3-methylphenol			not detected	0.18 ug/L	
91-57-6	2-Methylnaphthalene			not detected	0.16 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	1.50 ug/L	50
88-06-2	2,4,6-Trichlorophenol			not detected	0.42 ug/L	20
	2,4,5-Trichlorophenol			not detected	0.31 ug/L	700
91-58-7	2-Chloronaphthalene			not detected	0.32 ug/L	
88-74-4	2-Nitroaniline			not detected	0.21 ug/L	
131-11-3	Dimethylphthalate			not detected	0.18 ug/L	7000
208-96-8	Acenaphthylene			not detected	0.19 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	0.31 ug/L	
99-09-2	3-Nitroaniline			not detected	0.26 ug/L	
83-32-9	Acenaphthene			not detected	0.26 ug/L	400
51-28-5	2,4-Dinitrophenol			not detected	0.69 ug/L	40

132-64-9	Dibenzofuran			not detected	0.32 ug/L	
100-02-7	4-Nitrophenol			not detected	0.27 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	0.36 ug/L	10
84-66-2	Diethylphthalate			not detected	0.82 ug/L	5000
86-73-7	Fluorene			not detected	0.29 ug/L	300
7005-72-3	4-Chlorophenyl-phenylether			not detected	0.31 ug/L	
100-01-6	4-Nitroaniline			not detected	0.90 ug/L	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	0.44 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	0.23 ug/L	20
103-33-3	Azobenzene			not detected	0.80 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	0.55 ug/L	
118-74-1	Hexachlorobenzene			not detected	0.82 ug/L	10
87-86-5	Pentachlorophenol			not detected	1.08 ug/L	1
85-01-8	Phenanthrene			not detected	0.18 ug/L	
120-12-7	Anthracene			not detected	0.19 ug/L	2000
84-74-2	Di-n-butylphthalate	20.30	648333	4.29 ug/L	0.23 ug/L	900
206-44-0	Fluoranthene			not detected	0.41 ug/L	300
92-87-5	Benzidine			not detected	1.45 ug/L	50
129-00-0	Pyrene			not detected	0.32 ug/L	200
85-68-7	Butylbenzylphthalate			not detected	0.47 ug/L	100
56-55-3	Benzo[a]anthracene			not detected	0.22 ug/L	10
91-94-1	3,3'-Dichlorobenzidine			not detected	0.46 ug/L	60
218-01-9	Chrysene			not detected	0.20 ug/L	20
117-81-7	bis(2-Ethylhexyl)phthalate	25.30	145931	2.13 ug/L	0.51 ug/L	30
117-84-0	Di-n-octylphthalate			not detected	0.82 ug/L	100
205-99-2	Benzo[b]fluoranthene			not detected	0.37 ug/L	10
207-08-9	Benzo[k]fluoranthene			not detected	0.32 ug/L	2
50-32-8	Benzo[a]pyrene			not detected	0.31 ug/L	20
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	0.79 ug/L	20
53-70-3	Dibenz[a,h]anthracene			not detected	0.28 ug/L	20
191-24-2	Benzo[g,h,i]perylene			not detected	0.40 ug/L	

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

Data File Name **BN0666.D**
 Operator **Skelton**
 Date Acquired **11/ 5/97 13:18**

Sample Name **3112.05**
 Field ID **9004-EWS**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Amount	MDL	GW Criteria
110-86-1	Pyridine			not detected	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	0.94 ug/L	20
62-53-3	Aniline			not detected	0.15 ug/L	
108-95-2	Phenol			not detected	0.47 ug/L	4000
111-44-4	bis(2-Chloroethyl)ether			not detected	0.48 ug/L	10
95-57-8	2-Chlorophenol			not detected	0.18 ug/L	40
541-73-1	1,3-Dichlorobenzene			not detected	0.15 ug/L	600
106-46-7	1,4-Dichlorobenzene			not detected	0.23 ug/L	75
100-51-6	Benzyl alcohol			not detected	0.18 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	0.16 ug/L	600
	2-Methylphenol			not detected	0.14 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	0.61 ug/L	300
	4-Methylphenol			not detected	0.14 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	0.36 ug/L	20
67-72-1	Hexachloroethane			not detected	0.33 ug/L	10
98-95-3	Nitrobenzene			not detected	0.46 ug/L	10
78-59-1	Isophorone			not detected	0.35 ug/L	100
88-75-5	2-Nitrophenol			not detected	0.23 ug/L	
105-67-9	2,4-Dimethylphenol			not detected	0.27 ug/L	100
111-91-1	bis(2-Chloroethoxy)methane			not detected	0.46 ug/L	
120-83-2	2,4-Dichlorophenol			not detected	0.12 ug/L	20
65-85-0	Benzoic Acid			not detected	0.26 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	0.25 ug/L	9
91-20-3	Naphthalene			not detected	0.25 ug/L	
106-47-8	4-Chloroaniline			not detected	0.19 ug/L	
87-68-3	Hexachlorobutadiene			not detected	0.38 ug/L	1
59-50-7	4-Chloro-3-methylphenol			not detected	0.18 ug/L	
91-57-6	2-Methylnaphthalene			not detected	0.16 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	1.50 ug/L	50
88-06-2	2,4,6-Trichlorophenol			not detected	0.42 ug/L	20
	2,4,5-Trichlorophenol			not detected	0.31 ug/L	700
91-58-7	2-Chloronaphthalene			not detected	0.32 ug/L	
88-74-4	2-Nitroaniline			not detected	0.21 ug/L	
131-11-3	Dimethylphthalate			not detected	0.18 ug/L	7000
208-96-8	Acenaphthylene			not detected	0.19 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	0.31 ug/L	
99-09-2	3-Nitroaniline			not detected	0.26 ug/L	
83-32-9	Acenaphthene			not detected	0.26 ug/L	400
51-28-5	2,4-Dinitrophenol			not detected	0.69 ug/L	40

132-64-9	Dibenzofuran			not detected	0.32 ug/L	
100-02-7	4-Nitrophenol			not detected	0.27 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	0.36 ug/L	10
84-66-2	Diethylphthalate			not detected	0.82 ug/L	5000
86-73-7	Fluorene			not detected	0.29 ug/L	300
7005-72-3	4-Chlorophenyl-phenylether			not detected	0.31 ug/L	
100-01-6	4-Nitroaniline			not detected	0.90 ug/L	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	0.44 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	0.23 ug/L	20
103-33-3	Azobenzene			not detected	0.80 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	0.55 ug/L	
118-74-1	Hexachlorobenzene			not detected	0.82 ug/L	10
87-86-5	Pentachlorophenol			not detected	1.08 ug/L	1
85-01-8	Phenanthrene			not detected	0.18 ug/L	
120-12-7	Anthracene			not detected	0.19 ug/L	2000
84-74-2	Di-n-butylphthalate	20.30	583102	3.86 ug/L	0.23 ug/L	900
206-44-0	Fluoranthene			not detected	0.41 ug/L	300
92-87-5	Benzidine			not detected	1.45 ug/L	50
129-00-0	Pyrene			not detected	0.32 ug/L	200
85-68-7	Butylbenzylphthalate			not detected	0.47 ug/L	100
56-55-3	Benzo[a]anthracene			not detected	0.22 ug/L	10
91-94-1	3,3'-Dichlorobenzidine			not detected	0.46 ug/L	60
218-01-9	Chrysene			not detected	0.20 ug/L	20
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	0.51 ug/L	30
117-84-0	Di-n-octylphthalate			not detected	0.82 ug/L	100
205-99-2	Benzo[b]fluoranthene			not detected	0.37 ug/L	10
207-08-9	Benzo[k]fluoranthene			not detected	0.32 ug/L	2
50-32-8	Benzo[a]pyrene			not detected	0.31 ug/L	20
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	0.79 ug/L	20
53-70-3	Dibenz[a,h]anthracene			not detected	0.28 ug/L	20
191-24-2	Benzo[g,h,i]perylene			not detected	0.40 ug/L	

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET FIELD ID
TENTATIVELY IDENTIFIED COMPOUNDS

Field Blank

Lab Name: FMETL Lab Code 13461

Project 971251 Case No.: 3112 Location Bldg90 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 3112.04

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN0665.D

Level: (low/med) LOW Date Received: 10/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 11/05/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

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

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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

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

Project # : 5841
Location : 9090
UST Reg. # :

Analysis : OQA-QAM-025
Matrix : Soil
Inst. ID. : GC TPHC INST. #1
Column Type : RTX-5, 0.32mm ID, 30M
Injection Volume : 1uL

Date Received : 08-Nov-00
Date Extracted : 09-Nov-00
Extraction Method : Shake
Analysis Complete : 09-Nov-00
Analyst : B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5841.02	B-9090-1	1.00	15.23	94.17	164	ND
5841.03	B-9090-2	1.00	15.66	98.11	153	ND
5841.04	B-9090-3	1.00	15.40	97.36	157	ND
5841.05	B-9090-4	1.00	15.25	98.40	157	ND
METHOD BLANK	TBLK436	1.00	15.00	100.00	157	ND

ND = Not Detected
 MDL = Method Detection Limit

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

Vbik121

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: Vbik121

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004353.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 0 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3200	U
1634044	Methyl-tert-Butyl ether	750	U
108203	Di-isopropyl ether	500	U
75718	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	750	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	750	U
75-69-4	Trichlorofluoromethane	500	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	500	U
156-60-5	trans-1,2-Dichloroethene	500	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	750	U
78-93-3	2-Butanone	750	U
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	500	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	500	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	500	U
126-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	500	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

Vblk121

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: Vblk121

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004353.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 0 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	750	U
1330-20-7	o-Xylene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
541-73-1	1,3-Dichlorobenzene	750	U
106-46-7	1,4-Dichlorobenzene	750	U
95-50-1	1,2-Dichlorobenzene	750	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Vblk121

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: Vblk121
Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004353.D
Level: (low/med) MED Date Received: 11/8/00
% Moisture: not dec. 0 Date Analyzed: 11/9/00
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5841.01

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004359.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 0 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein	1800		U
107131	Acrylonitrile	1800		U
75650	tert-Butyl alcohol	3200		U
1634044	Methyl-tert-Butyl ether	750		U
108203	Di-isopropyl ether	500		U
75718	Dichlorodifluoromethane	1000		U
74-87-3	Chloromethane	250		U
75-01-4	Vinyl Chloride	750		U
74-83-9	Bromomethane	500		U
75-00-3	Chloroethane	750		U
75-69-4	Trichlorofluoromethane	500		U
75-35-4	1,1-Dichloroethene	250		U
67-64-1	Acetone	500		U
75-15-0	Carbon Disulfide	250		U
75-09-2	Methylene Chloride	520		
156-60-5	trans-1,2-Dichloroethene	500		U
75-35-3	1,1-Dichloroethane	250		U
108-05-4	Vinyl Acetate	750		U
78-93-3	2-Butanone	1600		
	cis-1,2-Dichloroethene	250		U
67-66-3	Chloroform	250		U
75-55-6	1,1,1-Trichloroethane	250		U
56-23-5	Carbon Tetrachloride	500		U
71-43-2	Benzene	250		U
107-06-2	1,2-Dichloroethane	500		U
79-01-6	Trichloroethene	250		U
78-87-5	1,2-Dichloropropane	250		U
75-27-4	Bromodichloromethane	250		U
110-75-8	2-Chloroethyl vinyl ether	500		U
10061-01-5	cis-1,3-Dichloropropene	250		U
108-10-1	4-Methyl-2-Pentanone	500		U
108-88-3	Toluene	250		U
10061-02-6	trans-1,3-Dichloropropene	500		U
79-00-5	1,1,2-Trichloroethane	500		U
127-18-4	Tetrachloroethene	250		U
591-78-6	2-Hexanone	500		U
126-48-1	Dibromochloromethane	500		U
108-90-7	Chlorobenzene	250		U
100-41-4	Ethylbenzene	500		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

Trip Blank

Lab Name: FMETL NJDEP # 13461
 Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5841.01
 Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004359.D
 Level: (low/med) MED Date Received: 11/8/00
 % Moisture: not dec. 0 Date Analyzed: 11/9/00
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	750	U
1330-20-7	o-Xylene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
541-73-1	1,3-Dichlorobenzene	750	U
106-46-7	1,4-Dichlorobenzene	750	U
95-50-1	1,2-Dichlorobenzene	750	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Trip Blank

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 5841 Location: 9090. SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5841.01
Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004359.D
Level: (low/med) MED Date Received: 11/8/00
% Moisture: not dec. 0 Date Analyzed: 11/9/00
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

FIELD ID.

B-9090-1

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5841.02

Sample wt/vol: 13.0 (g/ml) G Lab File ID: VC004360.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 5.83 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

107028	Acrolein	1400	U
107131	Acrylonitrile	1400	U
75650	tert-Butyl alcohol	2700	U
1634044	Methyl-tert-Butyl ether	610	U
108203	Di-isopropyl ether	410	U
75718	Dichlorodifluoromethane	820	U
74-87-3	Chloromethane	200	U
75-01-4	Vinyl Chloride	610	U
74-83-9	Bromomethane	410	U
75-00-3	Chloroethane	610	U
75-69-4	Trichlorofluoromethane	410	U
75-35-4	1,1-Dichloroethene	200	U
67-64-1	Acetone	410	U
75-15-0	Carbon Disulfide	200	U
75-09-2	Methylene Chloride	490	
156-60-5	trans-1,2-Dichloroethene	410	U
75-35-3	1,1-Dichloroethane	200	U
108-05-4	Vinyl Acetate	610	U
78-93-3	2-Butanone	1100	
	cis-1,2-Dichloroethene	200	U
67-66-3	Chloroform	200	U
75-55-6	1,1,1-Trichloroethane	200	U
56-23-5	Carbon Tetrachloride	410	U
71-43-2	Benzene	200	U
107-06-2	1,2-Dichloroethane	410	U
79-01-6	Trichloroethene	200	U
78-87-5	1,2-Dichloropropane	200	U
75-27-4	Bromodichloromethane	200	U
110-75-8	2-Chloroethyl vinyl ether	410	U
10061-01-5	cis-1,3-Dichloropropene	200	U
108-10-1	4-Methyl-2-Pentanone	410	U
108-88-3	Toluene	200	U
10061-02-6	trans-1,3-Dichloropropene	410	U
79-00-5	1,1,2-Trichloroethane	410	U
127-18-4	Tetrachloroethene	200	U
591-78-6	2-Hexanone	410	U
126-48-1	Dibromochloromethane	410	U
108-90-7	Chlorobenzene	200	U
100-41-4	Ethylbenzene	410	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

B-9090-1

Lab Name: FMETL NJDEP # 13461
 Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 5841.02
 Sample wt/vol: 13.0 (g/ml) G Lab File ID: VC004360.D
 Level: (low/med) MED Date Received: 11/8/00
 % Moisture: not dec. 5.83 Date Analyzed: 11/9/00
 GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	610	U
1330-20-7	o-Xylene	410	U
100-42-5	Styrene	410	U
75-25-2	Bromoform	410	U
79-34-5	1,1,2,2-Tetrachloroethane	410	U
541-73-1	1,3-Dichlorobenzene	610	U
106-46-7	1,4-Dichlorobenzene	610	U
95-50-1	1,2-Dichlorobenzene	610	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

B-9090-1

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5841.02
Sample wt/vol: 13.0 (g/ml) G Lab File ID: VC004360.D
Level: (low/med) MED Date Received: 11/8/00
% Moisture: not dec. 5.83 Date Analyzed: 11/9/00
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

B-9090-2

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5841.03

Sample wt/vol: 11.7 (g/ml) G Lab File ID: VC004361.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 1.89 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein		1500	U
107131	Acrylonitrile		1500	U
75650	tert-Butyl alcohol		2800	U
1634044	Methyl-tert-Butyl ether		650	U
108203	Di-isopropyl ether		440	U
75718	Dichlorodifluoromethane		870	U
74-87-3	Chloromethane		220	U
75-01-4	Vinyl Chloride		650	U
74-83-9	Bromomethane		440	U
75-00-3	Chloroethane		650	U
75-69-4	Trichlorofluoromethane		440	U
75-35-4	1,1-Dichloroethene		220	U
67-64-1	Acetone		440	U
75-15-0	Carbon Disulfide		220	U
75-09-2	Methylene Chloride		580	
156-60-5	trans-1,2-Dichloroethene		440	U
75-35-3	1,1-Dichloroethane		220	U
108-05-4	Vinyl Acetate		650	U
78-93-3	2-Butanone		1200	
	cis-1,2-Dichloroethene		220	U
67-66-3	Chloroform		220	U
75-55-6	1,1,1-Trichloroethane		220	U
56-23-5	Carbon Tetrachloride		440	U
71-43-2	Benzene		220	U
107-06-2	1,2-Dichloroethane		440	U
79-01-6	Trichloroethene		220	U
78-87-5	1,2-Dichloropropane		220	U
75-27-4	Bromodichloromethane		220	U
110-75-8	2-Chloroethyl vinyl ether		440	U
10061-01-5	cis-1,3-Dichloropropene		220	U
108-10-1	4-Methyl-2-Pentanone		440	U
108-88-3	Toluene		220	U
10061-02-6	trans-1,3-Dichloropropene		440	U
79-00-5	1,1,2-Trichloroethane		440	U
127-18-4	Tetrachloroethene		220	U
591-78-6	2-Hexanone		440	U
126-48-1	Dibromochloromethane		440	U
108-90-7	Chlorobenzene		220	U
100-41-4	Ethylbenzene		440	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

B-9090-2

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5841.03

Sample wt/vol: 11.7 (g/ml) G Lab File ID: VC004361.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 1.89 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
1330-20-7	m+p-Xylenes		650	U
1330-20-7	o-Xylene		440	U
100-42-5	Styrene		440	U
75-25-2	Bromoform		440	U
79-34-5	1,1,2,2-Tetrachloroethane		440	U
541-73-1	1,3-Dichlorobenzene		650	U
106-46-7	1,4-Dichlorobenzene		650	U
95-50-1	1,2-Dichlorobenzene		650	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

B-9090-2

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5841.03
Sample wt/vol: 11.7 (g/ml) G Lab File ID: VC004361.D
Level: (low/med) MED Date Received: 11/8/00
% Moisture: not dec. 1.89 Date Analyzed: 11/9/00
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

FIELD ID.

B-9090-3

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5841.04

Sample wt/vol: 13.3 (g/ml) G Lab File ID: VC004362.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 2.64 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

107028	Acrolein	1400	U
107131	Acrylonitrile	1400	U
75650	tert-Butyl alcohol	2500	U
1634044	Methyl-tert-Butyl ether	580	U
108203	Di-isopropyl ether	390	U
75718	Dichlorodifluoromethane	780	U
74-87-3	Chloromethane	190	U
75-01-4	Vinyl Chloride	580	U
74-83-9	Bromomethane	390	U
75-00-3	Chloroethane	580	U
75-69-4	Trichlorofluoromethane	390	U
75-35-4	1,1-Dichloroethene	190	U
67-64-1	Acetone	390	U
75-15-0	Carbon Disulfide	190	U
75-09-2	Methylene Chloride	640	
156-60-5	trans-1,2-Dichloroethene	390	U
75-35-3	1,1-Dichloroethane	190	U
108-05-4	Vinyl Acetate	580	U
78-93-3	2-Butanone	1100	
	cis-1,2-Dichloroethene	190	U
67-66-3	Chloroform	190	U
75-55-6	1,1,1-Trichloroethane	190	U
56-23-5	Carbon Tetrachloride	390	U
71-43-2	Benzene	190	U
107-06-2	1,2-Dichloroethane	390	U
79-01-6	Trichloroethene	190	U
78-87-5	1,2-Dichloropropane	190	U
75-27-4	Bromodichloromethane	190	U
110-75-8	2-Chloroethyl vinyl ether	390	U
10061-01-5	cis-1,3-Dichloropropene	190	U
108-10-1	4-Methyl-2-Pentanone	390	U
108-88-3	Toluene	190	U
10061-02-6	trans-1,3-Dichloropropene	390	U
79-00-5	1,1,2-Trichloroethane	390	U
127-18-4	Tetrachloroethene	190	U
591-78-6	2-Hexanone	390	U
126-48-1	Dibromochloromethane	390	U
108-90-7	Chlorobenzene	190	U
100-41-4	Ethylbenzene	390	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

B-9090-3

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5841.04

Sample wt/vol: 13.3 (g/ml) G Lab File ID: VC004362.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 2.64 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
1330-20-7	m+p-Xylenes		580	U
1330-20-7	o-Xylene		390	U
100-42-5	Styrene		390	U
75-25-2	Bromoform		390	U
79-34-5	1,1,2,2-Tetrachloroethane		390	U
541-73-1	1,3-Dichlorobenzene		580	U
106-46-7	1,4-Dichlorobenzene		580	U
95-50-1	1,2-Dichlorobenzene		580	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

B-9090-3

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5841.04
Sample wt/vol: 13.3 (g/ml) G Lab File ID: VC004362.D
Level: (low/med) MED Date Received: 11/8/00
% Moisture: not dec. 2.64 Date Analyzed: 11/9/00
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

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

B-9090-4

Lab Name: FMETL NJDEP # 13461Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____Matrix: (soil/water) SOIL Lab Sample ID: 5841.05Sample wt/vol: 10.9 (g/ml) G Lab File ID: VC004363.DLevel: (low/med) MED Date Received: 11/8/00% Moisture: not dec. 1.6 Date Analyzed: 11/9/00GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein	1600		U
107131	Acrylonitrile	1600		U
75650	tert-Butyl alcohol	3100		U
1634044	Methyl-tert-Butyl ether	710		U
108203	Di-isopropyl ether	470		U
75718	Dichlorodifluoromethane	940		U
74-87-3	Chloromethane	240		U
75-01-4	Vinyl Chloride	710		U
74-83-9	Bromomethane	470		U
75-00-3	Chloroethane	710		U
75-69-4	Trichlorofluoromethane	470		U
75-35-4	1,1-Dichloroethene	240		U
67-64-1	Acetone	470		U
75-15-0	Carbon Disulfide	240		U
75-09-2	Methylene Chloride	1000		
156-60-5	trans-1,2-Dichloroethene	470		U
75-35-3	1,1-Dichloroethane	240		U
108-05-4	Vinyl Acetate	710		U
78-93-3	2-Butanone	1400		
	cis-1,2-Dichloroethene	240		U
67-66-3	Chloroform	240		U
75-55-6	1,1,1-Trichloroethane	240		U
56-23-5	Carbon Tetrachloride	470		U
71-43-2	Benzene	240		U
107-06-2	1,2-Dichloroethane	470		U
79-01-6	Trichloroethene	240		U
78-87-5	1,2-Dichloropropane	240		U
75-27-4	Bromodichloromethane	240		U
110-75-8	2-Chloroethyl vinyl ether	470		U
10061-01-5	cis-1,3-Dichloropropene	240		U
108-10-1	4-Methyl-2-Pentanone	470		U
108-88-3	Toluene	240		U
10061-02-6	trans-1,3-Dichloropropene	470		U
79-00-5	1,1,2-Trichloroethane	470		U
127-18-4	Tetrachloroethene	240		U
591-78-6	2-Hexanone	470		U
126-48-1	Dibromochloromethane	470		U
108-90-7	Chlorobenzene	240		U
100-41-4	Ethylbenzene	470		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

B-9090-4

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 5841.05

Sample wt/vol: 10.9 (g/ml) G Lab File ID: VC004363.D

Level: (low/med) MED Date Received: 11/8/00

% Moisture: not dec. 1.6 Date Analyzed: 11/9/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

1330-20-7	m+p-Xylenes	710	U
1330-20-7	o-Xylene	470	U
100-42-5	Styrene	470	U
75-25-2	Bromoform	470	U
79-34-5	1,1,2,2-Tetrachloroethane	470	U
541-73-1	1,3-Dichlorobenzene	710	U
106-46-7	1,4-Dichlorobenzene	710	U
95-50-1	1,2-Dichlorobenzene	710	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

B-9090-4

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 5841 Location: 9090 SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 5841.05
Sample wt/vol: 10.9 (g/ml) G Lab File ID: VC004363.D
Level: (low/med) MED Date Received: 11/8/00
% Moisture: not dec. 1.6 Date Analyzed: 11/9/00
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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