Underground Storage Tank Closure Report

Prepared for: U.S. Army Corps of Engineers Metro New York Area Building 611, Fort Totten Flushing, New York 11359

Site:

Building Nos. 276, 277, 278 UST Nos. 276N, 276S, 277N, 277S, 278N, 278S Sievers-Sandberg United States Army Reserve Center Pedricktown, New Jersey

Prepared by: Earth Tech, Inc. 2229 Tomlynn Street Richmond, Virginia 23230

October 23,1997

Contract No. DACW31-95-D-0097 Delivery Order No. 0015

ET Job No. 21574

environmental services & remediation transportation

DEPARTMENT OF THE ARMY

NEW YORK DISTRICT, CORPS OF ENGINEERS METRO AREA RESIDENT OFFICE 1900 HEMPSTEAD TURNPIKE, SUITE 316 EAST MEADOW, NEW YORK 11554

REPLY TO ATTENTION OF: CENAN-CO-ME

5 December 1997

MEMORANDUM THRU Area Engineer, Metro New York Area

FOR HQ 77th U.S. Army Reserve Command

ATTN: AFRC-ANY-SE (Env.)

Building 200, Fort Totten

Flushing, New York 11359-1016

SUBJECT: Contract No. DACW51-95-D-0097, Delivery Order # 15

Containment Structure Removal and/or Upgrade at Various Locations within

EPA Regions I, II and III

Sievers-Sandberg USARC, Pedricktown, New Jersey

- 1. Forwarded for your review and records is the Job Completion Reports for the removal of one 550 gallon fuel oil underground storage tank at each of the following buildings: 276N, 276S, 277N, 277S, 278N and 278S at the Sievers-Sandberg USARC in Pedricktown, New Jersey.
- 2. This work was performed under delivery order modification no. 1501.
- 3. POC is the undersigned or Edmund Louie-Ng at 718-352-1888.

Donald P. Braun, P.E.

Resident Engineer

Encl. as

Client: United States Army Corps of Engineers Project Name: Sievers-Sandberg United States Army Reserve Center, Building No. 276N ET Job No.: 21574

This document has been reviewed for technical content and quality, clarity, and style in accordance with the internal QA/QC procedures of Earth Tech, Inc.

Acknowledgments:		
Technical Review:		
(Name)	(Title)	(Date)
(Name)	(Title)	(Date)
Style Review:		
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(Name)	(Title)	(Date)
Final Review:		
Jane) (Name)	Start Scientist ((Title)	(Date)
New Jersey Subsurface Evaluator (No6015	7-909):	
(Name)	Znv Smatist	/0/7/97 (Date)
(Marile)	(Tide)	(Date)
New Jersey Professional Engineer (No. 330	50):	
(Name)	Associate Principal (Title)	10 16157 (Date)
// (Maine)	(Title)	(Date)

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EXECUTIVE SUMMARY

This report details the clean closure of an underground storage tank (UST) and fulfills the requirements of site investigation reporting activities as detailed in the New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (NJAC 7:26E - 3.10) and was conducted in accordance with the approved closure plan for the site.

J/6N

Earth Tech, Inc. (Earth Tech) was contracted by the U.S. Army Corps of Éngineers (USACE), Baltimore District, to remove a 550-gallon No. 2 heating oil UST (designated 278N) located east of Building No. 276 at the Sievers-Sandberg United States Army Reserve Center (USARC) in Pedricktown, New Jersey. The work was conducted under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. Earth Tech is an NJDEP-approved Closure Contractor (Registration No. US00537).

The UST was previously used to store No. 2 heating oil for heating purposes and was empty. On August 25, 1997, Earth Tech excavated and removed the UST. Upon removal, the condition of the UST was examined by an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The UST was in good condition with no visible holes. No soil staining was observed beneath the former UST and groundwater was not encountered in the excavation. Earth Tech cut and cleaned the UST, which was then transported by Superior Sanitation Services to BFI of Philadelphia, Pennsylvania, for disposal. The rinsate water generated during tank cleaning activities was transported by Casie Protank Environmental Services for disposal at Casie Ecology Oil Salvage, Inc. of Vineland, New Jersey.

No soil staining was observed beneath the former UST. Photoionization detector (PID) field screening of excavated soils indicated volatile organic vapor levels ranging from 0.0 parts per million (ppm) to 15.0 ppm. The excavated soils were used as backfill material.

Earth Tech collected four confirmatory soil samples from the excavation floor. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1, using an NJDEP-certified laboratory. All four confirmatory soil samples contained TPH concentrations below the method quantitation limits. All sampling and analysis was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4).

Based on field observations and analytical data, Earth Tech recommends no further action relative to former UST 276N at Building No. 276.

1.0 INTRODUCTION

Earth Tech, an underground storage tank (UST) Closure Contractor (Certification No. US00537) approved by the New Jersey Department of Environmental Protection (NJDEP), was contracted by the United States Army Corps of Engineers (USACE), Baltimore District, to remove USTs at the Sievers-Sandberg United States Army Reserve Center (USARC), Pedricktown, New Jersey, under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. This report details the clean closure of an UST located at Building No. 276 of the Sievers-Sandberg USARC. A Site Location Map is included as Figure 1 in Appendix A. This report fulfills the requirements of site investigation reporting as detailed in the New Jersey Technical Requirements for Site Remediation (NJAC 7:26E-3.10), and provides an overview of the site investigation activities, analytical results, and recommendations.

The Sievers-Sandberg USARC property was acquired by the USACE in 1917, and the Delaware Ordnance Depot was established at Pedricktown in 1918. The depot became the backup storage facility for the Picatinny and Frankfort Arsenals and the Aberdeen Proving Ground. In 1960, the Pedricktown facility became the headquarters for the 42nd and 43rd Artillery, which commanded the Nike Missile Sites in the Philadelphia area. In 1965, the Salem County Technical Institute gained control of the site. In the late 1960s, the 79th Army Reserve Command and the 21st Corps were replaced by the 78th Division of the Army Reserves, which is still stationed at the facility. The eastern portion of the property is currently leased by Salem Community College.

Building No. 276 is a residential building. A 550-gallon fiberglass UST (designated UST 276N) was formerly used to store No. 2 heating oil for the building. The UST was removed because the source of heat at the building is being converted to natural gas. See Plate A1 in Appendix A for a site plan of the Sievers-Sandberg USARC. The UST was not a regulated tank (per NJAC 58:10); however, an UST Closure Plan was submitted to the NJDEP prior to initiating closure activities. The NJDEP UST Closure Approval is included in Appendix B.

2.0 SITE ASSESSMENT

On August 25, 1997, Earth Tech removed one 550-gallon fiberglass UST at the site. Figure 2 in Appendix A shows the general site layout and the location of the UST. Photographic documentation of site activities is included in Appendix C. The UST was oriented parallel to the east side of Building No. 276. No utility lines were located in the vicinity of the UST. A second tank (UST 276S) was removed from Building No. 276 and a separate tank closure report was prepared and submitted to the NJDEP.

Upon tank removal, the UST condition was examined by Ms. Christina Harris, an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The tank was observed to be in good condition with no holes or pitting. No soil staining was observed in the excavation or along the excavation sidewalls. The UST measured approximately 6 feet long by 4 feet in diameter. Earth Tech personnel cut the UST at both ends to provide ventilation and access for tank cleaning. The tank was then cleaned using a pressure washer. The rinsate was collected and transported by Casie Protank Environmental Services for disposal at Casie Ecology Oil Salvage, Inc. of Vineland, New Jersey. The tank disposal certificate is included in Appendix D. The liquid disposal manifest is included in Appendix E.

Earth Tech personnel examined the UST excavation after removing the tank. No soil staining was observed beneath the former UST. Groundwater was not encountered in the excavation. Based on the photoionization detector (PID) field screening of excavated soils, no soils were deemed contaminated (i.e., no PID readings greater than 100 parts per million [ppm]).

Confirmatory soil samples were collected in accordance with NJAC 7:26E-6.4. Earth Tech personnel collected a total of four soil samples from the excavation (PED-276N-SS01, PED-276N-SS02, PED-276N-SS03, and PED-276N-SS04). Field screening of each soil sample using the PID indicated volatile organic vapor readings ranging from 0.4 ppm to 1.0 ppm. Figure 2 in Appendix A depicts the soil sample locations. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1. The samples were analyzed by Industrial & Environmental Analysts, Inc. (IEA), an NJDEP-certified laboratory.

All four samples contained TPH concentrations below the method quantitation limits. All sampling and analysis was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4). Certificates of analysis and chain-of-custody forms are included as Appendix F. Because the tank is not regulated, an executed NJDEP Site Inspection Report Checklist is not included in this report.

Table 1 Soil Analytical Results

Sample Designation and Eocation	Date Sampled	Depth (fbg)	PID (ppm)	TPH 418.1 (mg/Kg)	Quantitation Limits (mg/Kg)
PED-276N-SS01 east excavation floor	8/25/97	9	1.0	BQL	11
PED-276N-SS02 south excavation floor	8/25/97	9	0.8	BQL	10
PED-276N-SS03 west excavation floor	8/25/97	9	0.8	BQL	11
PED-276N-SS04 north excavation floor	8/25/97	9	0.4	BQL	11

Notes:

TPH Total petroleum hydrocarbons

fbg Feet below grade

BQL Below quantitation limit mg/Kg Milligram per kilogram PID Photoionization detector

ppm Parts per million

The stockpiled soil generated during UST removal, along with imported backfill, was used to backfill the excavation. No soils associated with the UST closure were removed from the site.

3.0 CONCLUSIONS

The following is a summary of Earth Tech's site investigation, findings, and tank closure activities for UST No. 276N at Building No. 276 on the Sievers-Sandberg USARC:

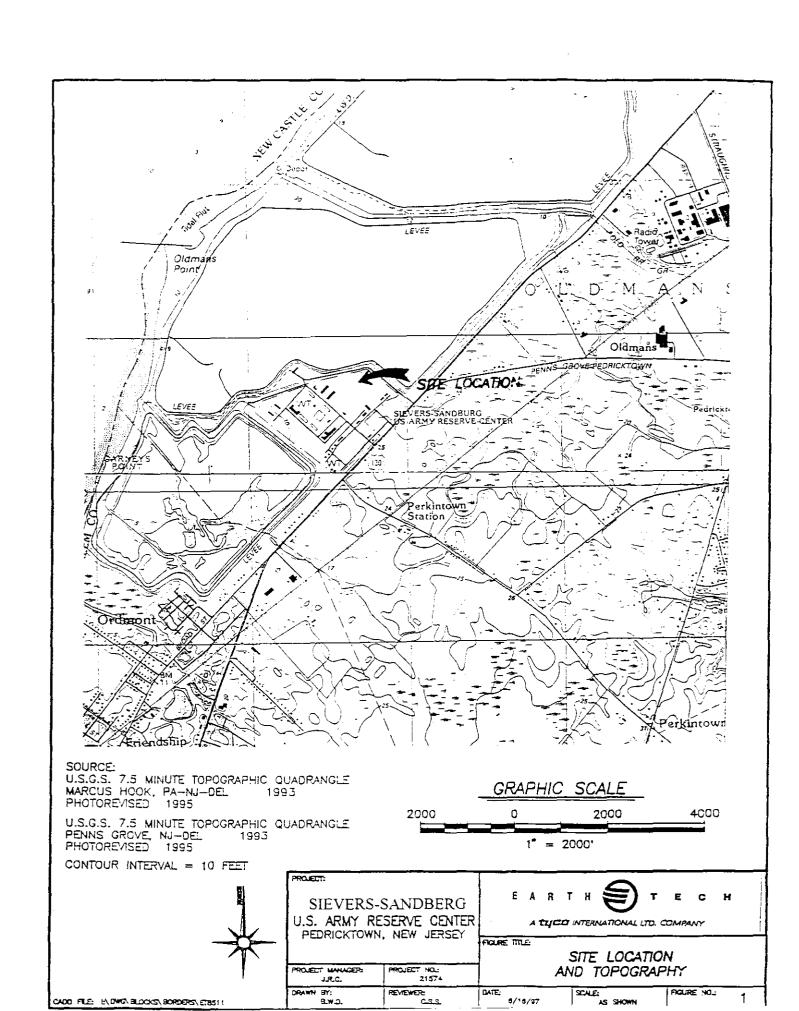
• On August 25, 1997, Earth Tech removed one 550-gallon, fiberglass UST used to store No. 2 heating oil for Building No. 276.

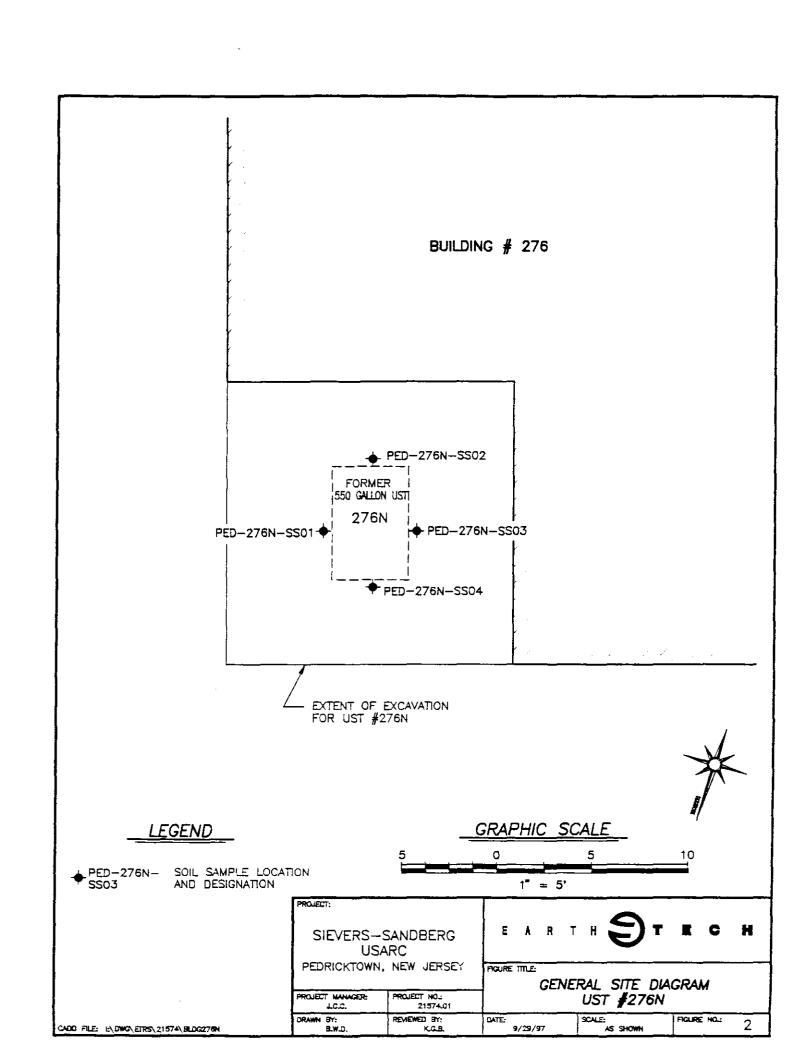
- No holes or pitting were observed in the tank.
- The cleaned UST was transported for disposal to BFI of Philadelphia, Pennsylvania.
- No stained soils were observed in the tank excavation. Groundwater was not encountered in the excavation.
- PID field screening was performed for excavated soils and for soil samples. Vapor readings ranged from 0.0 ppm to 15.0 ppm.
- Four confirmatory soil samples were collected from the base of the UST excavation. Analytical results for the four confirmatory soil samples indicated TPH concentrations below the method quantitation limits.

Based on the site investigation results, Earth Tech recommends no further action relative to former UST 276N at Building No. 276.

Appendix A

Figures





Appendix B NJDEP UST Closure Approval

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION BUREAU OF FIELD OPERATIONS CN-028, TRENTON, NJ 08625-0028

TMS #

C97-0793

UST #

0071994

SIEVERS-SANDBERG U.S. ARMY RESERVE CENTER BUILDING 273, ROUTE 130 PEDRICKTOWN

SALEM

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

REMOVAL OF: six 550 gallon #2 fuel\oil UST(s), and appurtenant piping.

SITE ASSESSMENT: Conduct a site investigation for the UST(s) and appurtenant piping specified in this approval in accordance with the Technical Requirements for Site Remediation, NJ.A.C. 7:26E.

The management of any excavated soils must follow the requirements listed in the Attachment enclosed within.

Note: The UNDERGROUND STORAGE TANK SERVICES CERTIFICATION ACT, NJS.A. 58:10A-24, requires all services performed on an UST system for the purpose of complying with PL-1986, c.102 to be performed by or under the immediate co-site supervision of a person certified by the Department for that service. The certified person providing that service must be employed by a buisness that is also certified by the Department for that service.

CONTACT PERSON:

TELEPHONE:

JANIS CROWDER

904-354-6409

EFFECTIVE DATE:

08/14/97

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

Joshua Gradwohl, SUPERVISOR
BUREAU OF FIELD OPERATIONS

Appendix C

Photographic Documentation



Photograph No.: 1 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276N)

Photographer: B. Rayfield

Description: Building 276N before tank removal activities.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/25/97 View: South.



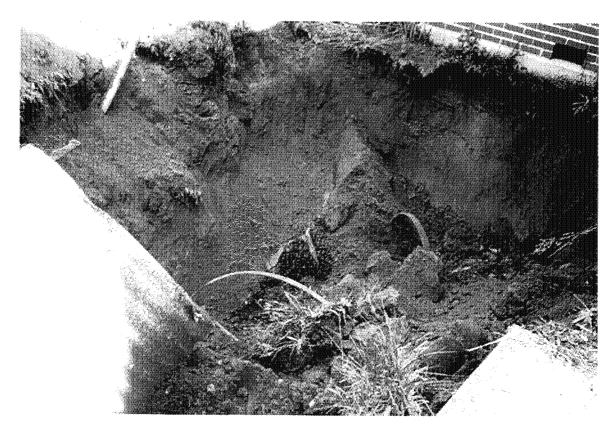
Photograph No.: 2 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276N)

Photographer: B. Rayfield

Description: 550-gallon UST being removed from ground.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/25/97 View: South.



Photograph No.: 3 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276N)

Photographer: B. Rayfield

Description: Bottom of UST 276N excavation.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/25/97 View: Detail.



Photograph No.: 4 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276N)

Photographer: B. Rayfield

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/25/97

Description: Four ventilation soil samples were collected from tank excavation. View: Detail.



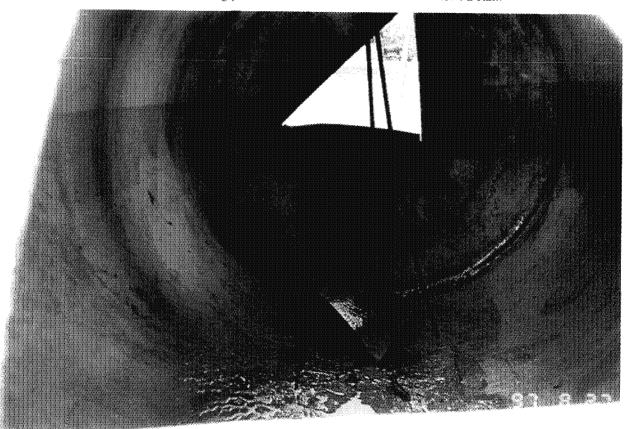
Photograph No.: 5 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276N)

Photographer: B. Rayfield

Description: Tanks cleaned using pressure washer.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.

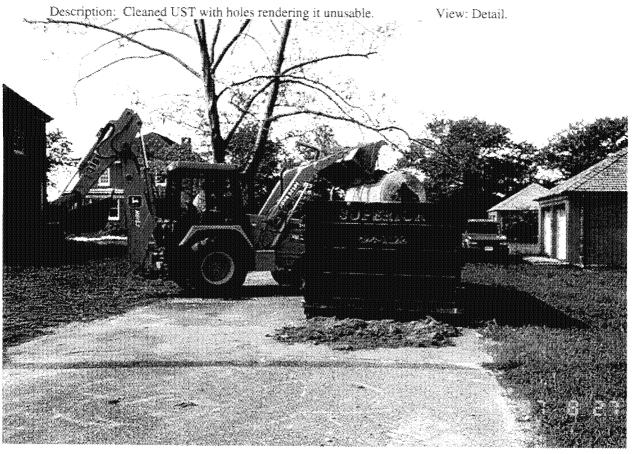


Photograph No.: 6 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276N)

Photographer: B. Rayfield

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/27/97



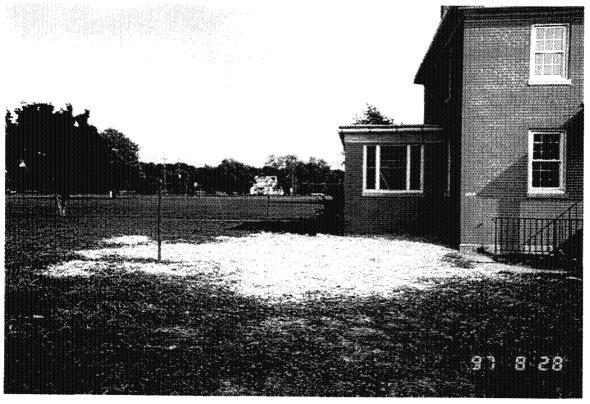
Photograph No.: 7 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276N)

Photographer: B. Rayfield

Description: Tank was loaded into rolloff box for disposal.

Earth Tech Job No. 21574 D.O. No.: 016

D.O. No.: 016 Date: 8/27/97 View: Detail.



Photograph No.: 8 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276N)

Photographer: B. Rayfield

Description: Excavation backfilled and restored with seed and straw. View: Detail.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/28/97 View: Detail.

Appendix D

Tank Disposal Certificate

P.02

Sep-23-97 10:23A

BOTT TECH ACCT

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None	
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Joseph Ale	SUPERIOR SANITATION

Appendix E Liquid Disposal Manifest

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

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Appendix F

Laboratory Certificates and Chain-of-Custody



September 8, 1997

Christina Harris Earth Tech 2231 Tomlynn Street Richmond VA 23230

IEA Project No.: 2070037P/9708503

IEA Reference No.: W9708391

Client Project I.D.: 22818 PEDRICKTOWN

Dear Ms. Harris,

Transmitted herewith are the results of analyses on eight samples submitted to our laboratory.

The samples were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call me at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.

Jason Jordan Project Manager

IEA/AEN-NORTH CAROLINA CERTIFICATIONS

Certifying State	Program Type	Lab ID #
Alabama	DW	40210
Arizona	DW,WW (Radiolog, Only)	AZ0572
California	DW. WW. HW Radiolog.	1768
Connecticut	DW, WW, Radiolog.	PH-0135
Iowa	ww	352
Kansas	DW, HW, WW, Radiolog.	E-10158
Kentucky	DW	90049
Maryland	DW, Radiolog.	259
Massachusetts	DW, WW	M-NC039
New Jersey	DW, WW Radiolog.	67719 67681
New York	Radiolog.	11422
North Carolina	DW WW Radiolog.	DW 37720 WW 84 Rad 37720
South Carolina	DW,WW,HW	99021
Теплеззее	DW UST App List	02914
Utah	Radiolog. RCRA	E-206 E-226
Virginia	DW, Radiolog.	00179
West Virginia	DW	9908C
Wisconsin	ww	998051010

IEA Project #: 2070-037 Matrix: Soil
IEA Sample #: 9708503 Date Received: N/A
Client Name: Earth Tech Date Sampled: N/A

Client Proj. I.D.:22818 Pedricktown

Sample I.D.: QC Blank

		Quantitation		Date Date
Parameter	Method	Limits	Results	Prepared Analyzed Analyst
TPH by IR	EPA 418.1	10 mg/Kg	BQL	08/28/97 09/04/97 CRC / KS

Comments:

TPH by IR = Petroleum Hydrocarbons by IR

Quantitation limits and results have been adjusted for moisture correction factor

BQL = Below Quantitation Limits

N/A = Not Applicable

Corresponding Samples: 9708503-01 through 08

IEA Project #: 2070-037
IEA Sample #: 9708503-05
Client Name: Earth Tech

Matrix: Soil
Date Received: 08/27/97
Date Sampled: 08/25/97

Client Proj. I.D.:22818 Pedricktown Sample I.D.: PED-276S-SS01

		Quantitation		Date	Date
Parameter	Method	Limits	Results	-	Analyzed Analyst
322222222222			========		
TPH by IR	EPA 418.1	10 mg/Kg	BQL	08/28/97	09/04/97 CRC / KS

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

IEA Project #:

2070-037

Matrix: Soil

IEA Sample #: 9708503-06

Date Received: 08/27/97

Client Name: Earth Tech

Date Sampled: 08/25/97

Client Proj. I.D.: 22818 Pedricktown Sample I.D.: PED-276S-SS02

		Quantitation		Date	Date	
Parameter	Method	Limits	Results	Prepared	*	-···
TPH by IR	EPA 418.1	11 mg/Kg	BQL	08/29/97		

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

IEA Project #: 2070-037
IEA Sample #: 9708503-07
Client Name: Earth Tech

Client Name: Earth Tech
Client Proj. I.D.:22818 Pedricktown
Sample I.D.: PED-276S-SS03

Quantitation Date Date

Parameter Method Limits Results Prepared Analyzed Analyst

TPH by IR EPA 418.1 11 mg/Kg BQL 08/28/97 09/04/97 CRC / KS

Matrix:

Soil

Date Received: 08/27/97
Date Sampled: 08/25/97

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

 IEA Project #:
 2070-037
 Matrix:
 Soil

 IEA Sample #:
 9708503-08
 Date Received:
 08/27/97

 Client Name:
 Earth Tech
 Date Sampled:
 08/25/97

Client Proj. I.D.:22818 Pedricktown Sample I.D.: PED-276S-SS04

		Quantitation		Date	Date		
Parameter	Method	Limits	Results	Prepared	Analyzed Analyst		
TPH by IR	EPA 418.1	11 mg/Kg	BÇL	08/28/97	======================================	==:	

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

Industrial and Environmental Analysts, Inc. (IEA) LCS Report for Petroleum Hydrocarbons

IEA Project #: 2070-037 Matrix: Soil IEA Sample #: Date Received: 9708503 N/A Client Name: Date Sampled: Earth Tech N/A Client Project I.D.: 22818 Pedricktown Date Prepared: pate Prepared:
Date Analyzed: 08/28/97 Sample I.D.: LCS 08/28/97 09/04/97

Parameter: TPH by IR

Client Number	Method	-	Spike (mg) Recovered	% Recovery	Blank Conc. (mg)
LCS	EPA 418.1			100	10

.

Comments:

TPH by IR = Petroleum Hydrocarbons by IR

Spike recovery range: 60% - 140%

Corresponding Samples: 9708503-01 through 08

N/A = Not Applicable

Industrial and Environmental Analysts, Inc. (IEA) MS/MSD Report for Petroleum Hydrocarbons

IEA Project #: Matrix: Soil 2070-037 IEA Sample #: 9708503-01 Date Received: 08/27/97 Date Sampled: Client Name: Earth Tech 08/25/97 Client Project I.D.: 22818 Pedricktown Date Prepared: 08/28/97 Sample I.D.: PED-276N-SS01 Date Analyzed: 09/04/97

Parameter: TPH by IR

		Spike	Spike (mg)	8	Sample
Client Number	Method	Added	Recovered	Recovery	Conc. (mg)
	*******	=======	355555 56555	.==========	
9708263-01 MS	EPA 418.1	2.1 mg	1.4 mg	67	BQL
9708263-01 MSD	EPA 418.1	2.1 mg	1.4 mg	67	BQL

RPD Acceptance Range 0 % < 35%

Comments

TPH by IR = Petroleum Hydrocarbons by IR

Spike recovery range: 60% - 140% RPD = Relative Percent Difference MCF = Moisture Correction Factor

Corresponding Samples: 9708503-01 through 08

N/A = Not Applicable

Page 5 150 of 150 IEA Logbook# SP33B

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IEA, Inc. Form# SPI.03201.NC

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IEA, Inc. Form# SPL03201.NC



3000 WESTON PKWY. CARY, N.C. 27513 PH# 919-677-0090 FAX# 919-677-0427

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Underground Storage Tank Closure Report

Prepared for: U.S. Army Corps of Engineers Metro New York Area Building 611, Ft. Totten Flushing, New York 11359

Site:

Building No. 276 **UST No. 276S** Sievers-Sandberg United States Army Reserve Center Pedricktown, New Jersey

Prepared by: Earth Tech, Inc. 2229 Tomlynn Street Richmond, Virginia 23230

October 23, 1997

Contract No. DACW31-95-D-0097 Delivery Order No. 0015

ET Job No. 21574

Client: United States Army Corps of Engineers

Project Name: Sievers-Sandberg United States Army Reserve Center, Building No. 276S

ET Job No.: 21574

This document has been reviewed for technical content and quality, clarity, and style in accordance with the internal QA/QC procedures of Earth Tech, Inc.

Acknowledgments:		
Technical Review:		
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(Name)	(Title)	(Date)
Style Review:		
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(Name)	(Title)	(Date)
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Janis Clouder (Name)	Staff Scientist (Title)	10-23-97 (Date)
(Name)	(Title)	(Date)
New Jersey Subsurface Evaluator (No. <u>0017</u>	<u>909</u>):	
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C (Waffie)	(Title)	(Date)
New Jersey Professional Engineer (No. 330		
DS)/2	Associate Unroyal	10/16/97
/(Name)	(Title)	(Date)

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EXECUTIVE SUMMARY

This report details the clean closure of an underground storage tank (UST) and fulfills the requirements of site investigation reporting activities as detailed in the New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (NJAC 7:26E - 3.10) and was conducted in accordance with the approved closure plan for the site.

Earth Tech was contracted by the U.S. Army Corps of Engineers (USACE), Baltimore District, to remove a 550-gallon No. 2 heating oil UST (designated UST 276S) located west of Building No. 276 at the Sievers-Sandberg United States Army Reserve Center (USARC) in Pedricktown, New Jersey. The work was conducted under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. Earth Tech is an NJDEP-approved Closure Contractor (Registration No. US00537).

The UST was previously used to store No. 2 heating oil for heating purposes and was empty. On August 25, 1997, Earth Tech excavated and removed the UST. Upon removal, the condition of the UST was examined by an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The UST was in good condition with no visible holes. No soil staining was observed beneath the former UST, and groundwater was not encountered in the excavation. Earth Tech cut and cleaned the UST, which was then transported by Superior Sanitation Services to BFI of Philadelphia, Pennsylvania, for disposal. The rinsate water generated during tank cleaning activities was removed by Casie Protank Environmental Services and transported for disposal to Casie Ecology Oil Salvage, Inc. of Vineland, New Jersey.

No soil staining was observed beneath the former UST. Photoionization detector (PID) field screening of the excavated soils and the soil samples indicated volatile organic vapor levels ranging from 0.0 parts per million (ppm) to 3.0 ppm. The excavated soils were used as backfill material.

Earth Tech collected four confirmatory soil samples from the excavation floor. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1, using an NJDEP-certified laboratory. All four confirmatory soil samples contained TPH concentrations below the method quantitation limits. All sampling and analysis was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4).

Based on field observations and analytical data, Earth Tech recommends no further action relative to former UST 276S at Building No. 276.

1.0 INTRODUCTION

Earth Tech, an underground storage tank (UST) Closure Contractor (Certification No. US00537) approved by the New Jersey Department of Environmental Protection (NJDEP), was contracted by the United States Army Corps of Engineers (USACE), Baltimore District, to remove USTs at the Sievers-Sandberg United States Army Reserve Center (USARC), Pedricktown, New Jersey, under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. This report details the clean closure of an UST located at Building No. 276 of the Sievers-Sandberg USARC. A Site Location Map is included as Figure 1 in Appendix A. This report fulfills the requirements of site investigation reporting as detailed in the New Jersey Technical Requirements for Site Remediation (NJAC 7:26E-3.10), and provides an overview of the site investigation activities, analytical results, and recommendations.

The Sievers-Sandberg USARC property was acquired by the USACE in 1917, and the Delaware Ordnance Depot was established at Pedricktown in 1918. The depot became the backup storage facility for the Picatinny and Frankfort Arsenals and the Aberdeen Proving Ground. In 1960, the Pedricktown facility became the headquarters for the 42nd and 43rd Artillery, which commanded the Nike Missile Sites in the Philadelphia area. In 1965, the Salem County Technical Institute gained control of the site. In the late 1960s, the 79th Army Reserve Command and the 21st Corps were replaced by the 78th Division of the Army Reserves, which is still stationed at the facility. The eastern portion of the property is currently leased by Salem Community College.

Building No. 276 is a former residential building. A 550-gallon fiberglass UST (designated 276S) was formerly used to store No. 2 heating oil for the building. The UST was removed because the source of heat at the building is being converted to natural gas. See Plate A1 in Appendix A for a site plan of the Sievers-Sandberg USARC. The UST was not a regulated tank (per NJAC 58:10); however, an UST Closure Plan was submitted to the NJDEP prior to initiating closure activities. The NJDEP UST Closure Approval is included in Appendix B.

2.0 SITE ASSESSMENT

On August 25, 1997, Earth Tech removed one 550-gallon fiberglass UST at the site. Figure 2 in Appendix A shows the general site layout and the location of the UST. Photographic documentation of site activities is included in Appendix C. The UST was oriented parallel to the west side of Building No. 276. No utility lines were located in the vicinity of the UST. A second tank (276N) was removed from Building No. 276, and a separate tank closure report was prepared and submitted to the NJDEP.

Upon tank removal, the UST condition was examined by Ms. Christina Harris, an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The tank was observed to be in good condition with no holes or pitting. No soil staining was observed in the excavation or along the excavation sidewalls. The UST measured approximately 6 feet long by 4 feet in diameter. Earth Tech personnel cut the UST at both ends to provide ventilation and access for tank cleaning. The tank was then cleaned using a pressure washer. The rinsate was collected by Casie Protank Environmental Services and transported for disposal to Casie Ecology Oil Salvage, Inc. of Vineland, New Jersey. The tank disposal certificate is included in Appendix D. The liquid disposal manifest is included in Appendix E.

Earth Tech personnel examined the UST excavation after removing the tank. No soil staining was observed beneath the former UST. Groundwater was not encountered in the excavation. Based on the photoionization detector (PID) field screening of the excavated soils, no soils were deemed contaminated (i.e., no PID readings greater than 100 parts per million [ppm]).

Confirmatory soil samples were collected in accordance with NJAC 7:26E-6.4. Earth Tech personnel collected a total of four soil samples from the excavation (PED-276S-SS01, PED-276S-SS02, PED-276S-SS03, and PED-276S-SS04). Field screening of each soil sample using the PID indicated volatile organic vapor readings ranging from 1.3 ppm to 3.0 ppm. Figure 2 in Appendix A depicts the soil sample locations. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1. The samples were analyzed by Industrial & Environmental Analysts, Inc. (IEA), an NJDEP-certified laboratory.

All four samples contained TPH concentrations below the method quatitation limits. All sampling and analysis was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4). Certificates of analysis and chain-of-custody forms are included as Appendix F. Because the tank is not regulated an executed NJDEP Site Inspection Report Checklist is not included in this report.

Table 1 Soil Analytical Results

Sample Designation and Location	Date Sampled	Depth (fbg)	TPH 418.1 (mg/Kg)	PID - (ppm)	Detection Limits (mg/Kg)
PED-276S-SS01 east excavation floor	8/25/97	9	BQL	2.2	10
PED-276S-SS02 south excavation floor	8/25/97	9	BQL	3.0	11
PED-276S-SS03 west excavation floor	8/25/97	9	BQL	1.3	11
PED-276S-SS04 north excavation floor	8/25/97	9	BQL	1.7	11

Notes:

TPH Total petroleum hydrocarbons

fbg Feet below ground

BQL Below quantitation limits

mg/Kg Milligram per kilogram

PID Photoionization detector

ppm Parts per million

The stockpiled soil generated during UST removal, along with imported backfill, was used to backfill the excavation. No soils associated with the UST closure were removed from the site.

3.0 CONCLUSIONS

The following is a summary of Earth Tech's site investigation, findings, and tank closure activities for UST No. 276S at Building No. 276 on the Sievers-Sandberg USARC:

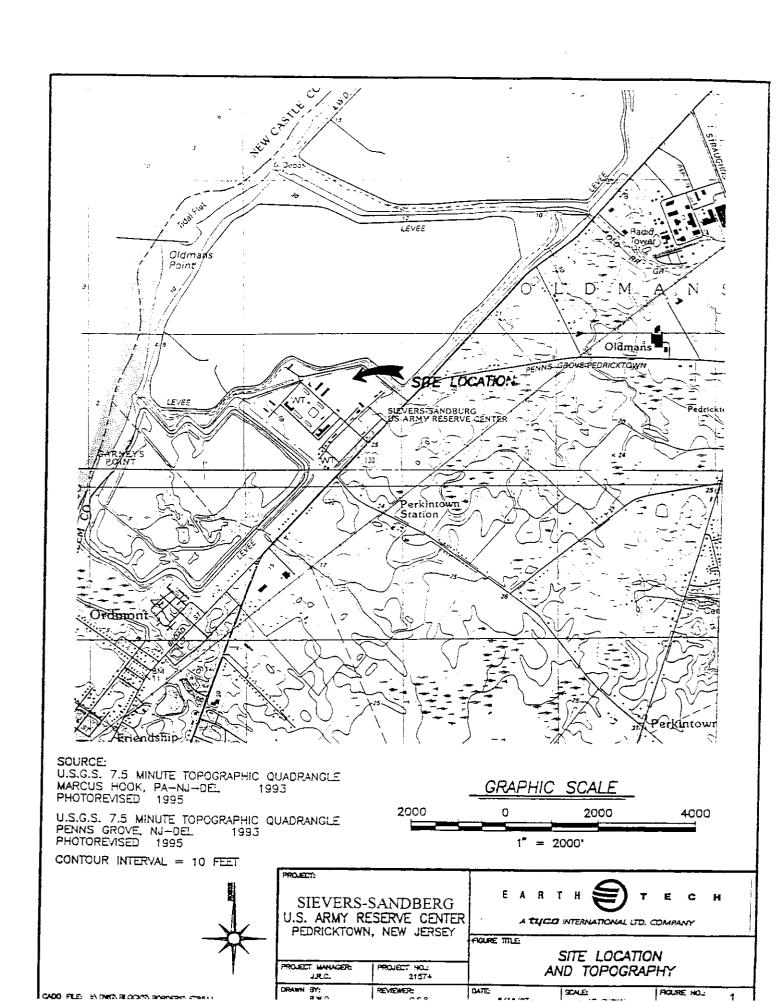
• On August 25, 1997, Earth Tech removed one 550-gallon, fiberglass UST used to store No. 2 heating oil for Building No. 276.

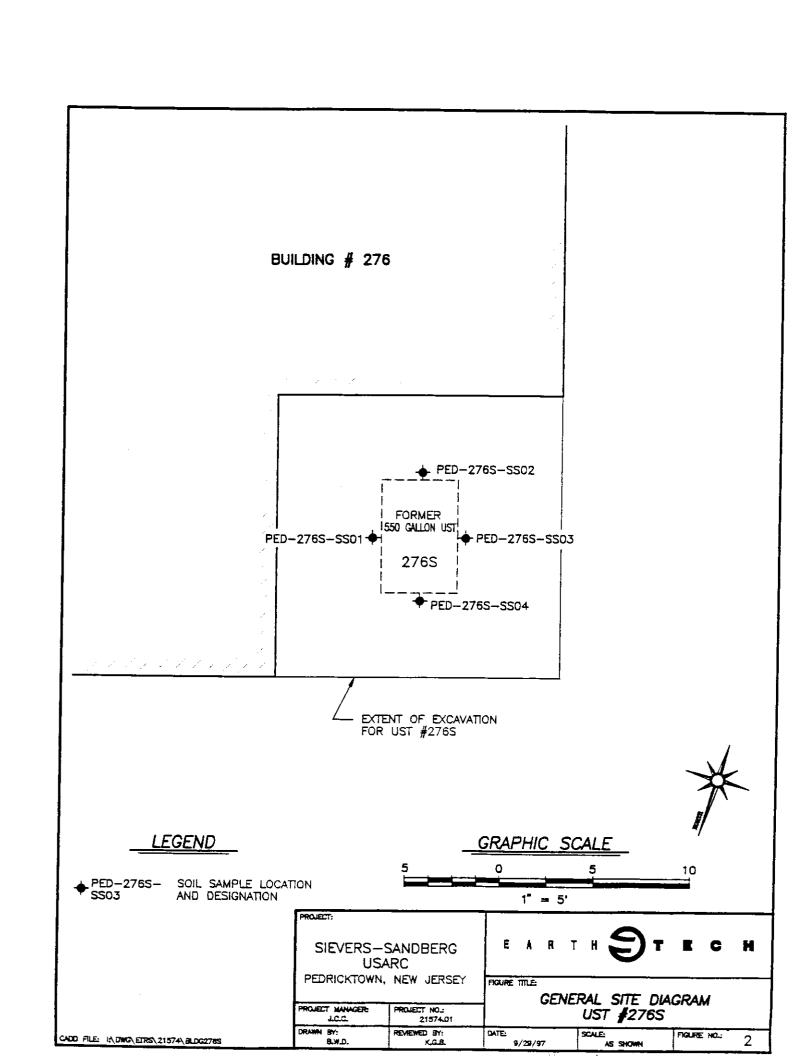
- No holes or pitting were observed in the tank.
- The cleaned UST was transported for disposal to BFI of Philadelphia, Pennsylvania.
- No stained soils were observed in the tank excavation. Groundwater was not encountered in the excavation.
- PID field screening was performed for excavated soils and on soil samples. Vapor readings ranged from 0.0 ppm to 3.0 ppm.
- Four confirmatory soil samples were collected from the UST excavation. Analytical results for the four soil samples indicated TPH concentrations below the method quantitation limits of 10 milligrams per Kilogram (mg/Kg) and 11 mg/Kg.

Based on the site investigation results, Earth Tech recommends no further action relative to former UST 276S at Building No. 276.

Appendix A

Figures





Appendix B

NJDEP UST Closure Approval

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION BUREAU OF FIELD OPERATIONS CN-028, TRENTON, NJ 08625-0028

TMS #

097-0793

UST #

0071994

SIEVERS-SANDBERG U.S. ARMY RESERVE CENTER BUILDING 273, ROUTE 130 PEDRICKTOWN

SALEM

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

REMOVAL OF: six 550 gallon #2 fuel\oil UST(s), and appurtenant piping.

SITE ASSESSMENT: Conduct a site investigation for the UST(s) and appurtenant piping specified in this approval in accordance with the Technical Requirements for Site Remediation, NJ.A.C. 7:26E.

The management of any expansive soils must follow the requirements listed in the Attachment enclosed within.

Note: The UNDERGROUND STORAGE TANK SERVICES CERTIFICATION ACT, NJSA. 58:10A-24, requires all services performed on an UST system for the purpose of complying with PL.1986, c.102 to be performed by or under the immediate on-site supervision of a person certified by the Department for that service. The certified person providing that service must be employed by a buisness that is also certified by the Department for that service.

CONTACT PERSON:

TELEPHONE:

JANIS CROWDER

804-354-5409

EFFECTIVE DATE:

08/14/97

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

Joshua Gradwohl, SUPERVISOR
BUREAU OF FIELD OPERATIONS

Appendix C

Photographic Documentation



Photograph No.: 1 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2768)

Photographer: B. Rayfield

Description: Building 276S prior to excavation activities.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/25/97 View: South.



Photograph No.: 2 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2768)

Photographer: B. Rayfield

Description: 550-gallon UST and associated piping were removed from excavation.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/25/97

View: Southeast.



Photograph No.: 3 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2768)

Photographer: B. Rayfield

Description: Excavation was backfilled with clean excavated soil.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/25/97 View: West.



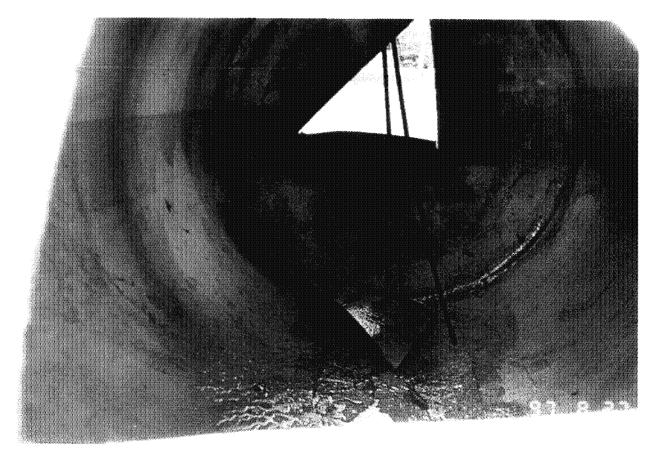
Photograph No.: 4 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276S)

Photographer: B. Rayfield

Description: Tanks cleaned using pressure washer.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.



Photograph No.: 5 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2768)

Photographer: B. Rayfield

Description: Cleaned UST with holes rendering it unusable.

Earth Tech Joh No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.



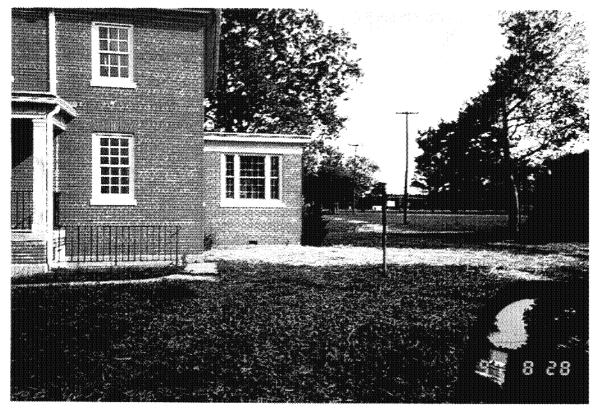
Photograph No.: 6 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2768)

Photographer: B. Rayfield

Description: Tank was loaded into rolloff box for disposal.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.



Photograph No.: 7 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 276S)

Photographer: B. Raytield

Description: Building 276S excavation backfilled and restored with seed and straw. View: South.

Earth Tech Job No. 21574

D.O. No.: 016

Date: 8/28/97

Underground Storage Tank Closure Report

Prepared for: U.S. Army Corps of Engineers Metro New York Area Building 611, Fort Totten Flushing, New York 11359

Site:

Building No. 277 UST No. 277N Sievers-Sandberg United States Army Reserve Center Pedricktown, New Jersey

Prepared by: Earth Tech, Inc. 2229 Tomlynn Street Richmond, Virginia 23230

October 23,1997

Contract No. DACW31-95-D-0097 Delivery Order No. 0015

ET Job No. 21574

Client: United States Army Corps of Engineers Project Name: Sievers-Sandberg United States Army Reserve Center, Building No. 277N ET Job No.: 21574

This document has been reviewed for technical content and quality, clarity, and style in accordance with the internal QA/QC procedures of Earth Tech, Inc.

Acknowledgments:		
Technical Review:		
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Jaum Cempler (Name)	Staff Scientist (Title)	10-33-97 (Date)
New Jersey Subsurface Evaluator (No.	7909):	
(Mame)	Env. Scientit	10 747 (Date)
New Jersey Professional Engineer (No33	(Title)	(Date)
New Jersey Froressional Engineer (No).	
(Name)	Acariale Principal	10-16-47 (Date)
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EXECUTIVE SUMMARY

This report details the clean closure of an underground storage tank (UST) and fulfills the requirements of site investigation reporting activities as detailed in the New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (NJAC 7:26E - 3.10). and was conducted in accordance with the approved closure plan for the site.

Earth Tech was contracted by the U.S. Army Corps of Engineers (USACE), Baltimore District, to remove a 550-gallon No. 2 heating oil UST located east of Building No. 277 at the Sievers-Sandberg United States Army Reserve Center (USARC) in Pedricktown, New Jersey. The work was conducted under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. Earth Tech is an NJDEP-approved Closure Contractor (Registration No. US00537).

The UST was previously use to store No. 2 heating oil for heating purposes and was empty. On August 26, 1997, Earth Tech excavated and removed the UST. Upon removal, the condition of the UST was examined by an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The UST was in good condition with no visible holes. No soil staining was observed beneath the former UST and groundwater was not encountered in the excavation. Earth Tech cut and cleaned the UST, which was then transported by Superior Sanitation Services to BFI of Philadelphia, Pennsylvania, for disposal. The rinsate water generated during tank cleaning activities was transported by Casie Protank Environmental Services for disposal at Casie Ecology Oil Salvage, Inc. of Vineland, New Jersey.

No soil staining was observed beneath the former base of the UST. Photoionization detector (PID) field screening of excavated soils and soil samples indicated volatile organic vapor levels ranging from 0.0 parts per million (ppm) to 7.0 ppm. The excavated soils were used as backfill material.

Earth Tech collected four confirmatory soil samples from the excavation floors. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1, using an NJDEP-certified laboratory. Three samples, PED-277N-SS01, PED-277N-SS02, and PED-277N-SS04, contained TPH concentrations below the method quantitation limits of 10 milligrams per kilogram (mg/Kg), 11 mg/Kg, and 12 mg/Kg, respectively. The sample collected from the west side of the excavation, PED-277N-SS03, had a TPH concentration of 110 mg/Kg, which is below the most stringent NJDEP Soil Cleanup Criteria of 10,000 mg/Kg for total organic compounds in soils. All sampling and analysis was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4).

Based on field observations and analytical data, Earth Tech recommends no further action relative to former UST 277N at Building No. 277.

1.0 INTRODUCTION

Earth Tech, an underground storage tank (UST) Closure Contractor (Certification No. US00537) approved by the New Jersey Department of Environmental Protection (NJDEP), was contracted by the United States Army Corps of Engineers (USACE), Baltimore District, to remove USTs at the Sievers-Sandberg United States Army Reserve Center (USARC), Pedricktown, New Jersey, under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. This report details the clean closure of an UST located at Building No. 277 of the Sievers-Sandberg USARC. A Site Location Map is included as Figure 1 in Appendix A. This report fulfills the requirements of site investigation reporting as detailed in the New Jersey Technical Requirements for Site Remediation (NJAC 7:26E-3.10), and provides an overview of the site investigation activities, analytical results, and recommendations.

The Sievers-Sandberg USARC property was acquired by the USACE in 1917, and the Delaware Ordinance Depot was established at Pedricktown in 1918. The depot became the backup storage facility for the Picatinny and Frankfort Arsenals and the Aberdeen Proving Ground. In 1960, the Pedricktown facility became the headquarters for the 42nd and 43rd Artillery, which commanded the Nike Missile Sites in the Philadelphia area. In 1965, the Salem County Technical Institute gained control of the site. In the late 1960s, the 79th Army Reserve Command and the 21st Corps were replaced by the 78th Division of the Army Reserves, which is still stationed at the facility. The eastern portion of the property is currently leased by Salem Community College.

Building No. 277 is a former residential building. A 550-gallon fiberglass UST (designated UST 277N) at the site was formerly used to store No. 2 heating oil for the building. The UST was removed because the source of heat at the building is being converted to natural gas. See Plate A1 in Appendix A for a site plan of the Sievers-Sandberg USARC. The UST was not a regulated tank (per NJAC 58:10); however, an UST Closure Plan was submitted to the NJDEP prior to initiating closure activities. The NJDEP UST Closure Approval is included in Appendix B.

2.0 SITE ASSESSMENT

On August 26, 1997, Earth Tech removed one 550-gallon fiberglass UST at the site. Figure 2 in Appendix A shows the general site layout and the location of the UST. Photographic documentation of site activities is included in Appendix C. The UST was oriented parallel to the east side of Building No. 277. No utility lines were located in the vicinity of the UST. A second tank (UST 276S) was removed from Building No. 276 and a separate tank closure report was prepared and submitted to the NJDEP.

Upon tank removal, the UST condition was examined by Ms. Christina Harris, an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The tank was observed to be in good condition with no holes or pitting. No soil staining was observed in the excavation or along the excavation sidewalls. The UST measured approximately 6 feet long by 4 feet in diameter. Earth Tech personnel cut the UST at both ends to provide ventilation and access for tank cleaning. The tank was then cleaned using a pressure washer. The rinsate was collected by Casie Protank Environmental Services and transported for disposal at Casie Ecology Oil Salvage, Inc. of Vineland, New Jersey. The tank disposal certificate is included in Appendix D. A liquid disposal manifest is included in Appendix E.

Earth Tech personnel examined the UST excavation after removing the tank. No soil staining was observed beneath the former UST. Groundwater was not encountered in the excavation. Based on the photoionization detector (PID) field screening of the excavated soils, no soils were deemed contaminated (i.e., no PID readings greater than 100 parts per million [ppm]).

Confirmatory soil samples were collected in accordance with NJAC 7:26E-6.4. Earth Tech personnel collected a total of four soil samples from the excavation (PED-277N-SS01, PED-277N-SS02, PED-277N-SS03, and PED-277N-SS04). Field screening of each soil sample using the PID indicated volatile organic vapor readings ranging from 2.8 ppm to 7.0 ppm. Figure 2 in Appendix A depicts the soil sample locations. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1. The samples were analyzed by Industrial & Environmental Analysts, Inc. (IEA), an NJDEP-certified laboratory.

Three samples, PED-277N-SS01, PED-277N-SS02, and PED-277N-SS04, contained TPH concentrations below the method quantitation limit of 10 milligrams per kilogram (mg/Kg), 11 mg/Kg, and 12 mg/Kg, respectively. One sample, PED-277N-SS03, collected from the west end of the excavation, had a TPH concentration of 110 mg/Kg, which is below the most stringent NJDEP Soil Cleanup Criteria of 10,000 mg/Kg for total organic compounds in soils. All sampling and analysis was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4). Certificates of analysis and chain-of-custody forms are included as Appendix F. Because the tank is not regulated, an executed NJDEP Site Inspection Report Checklist is not included in this report.

Table 1 Soil Analytical Results

Sample Designation and Location	Date Sampled	Depth (fbg)	PID (ppm)	TPH 418.1 (mg/Kg)	Quantitation Limits & (mg/Kg).
PED-277N-SS01	8/26/97	9	4.0	BQL	10
east excavation floor					
PED-277N-SS02	8/26/97	9	3.0	BQL	11
south excavation floor					
PED-277N-SS03	8/26/97	9	7.0	110	12
west excavation floor					
PED-277N-SS04	8/26/97	9	2.8	BQL	12
north excavation floor					

Notes:

TPH Total petroleum hydrocarbons

mg/Kg Milligram per kilogram

fbg Feet below grade

BQL Below quantitation limit

PID Photoionization detector

ppm Parts per million

The stockpiled soil generated during UST removal, along with imported backfill, was used to backfill the excavation. No soils associated with the UST closure were removed from the site.

3.0 CONCLUSIONS

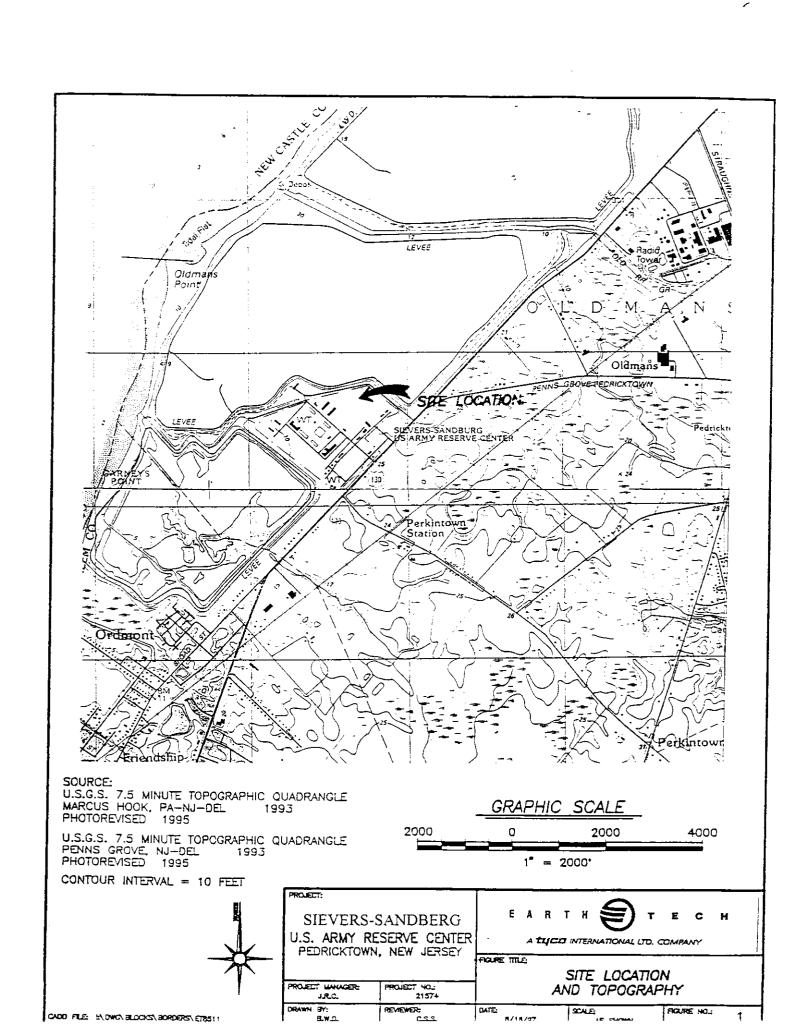
The following is a summary of Earth Tech's site investigation, findings, and tank closure activities for UST No. 277N at Building No. 277 on the Sievers-Sandberg USARC:

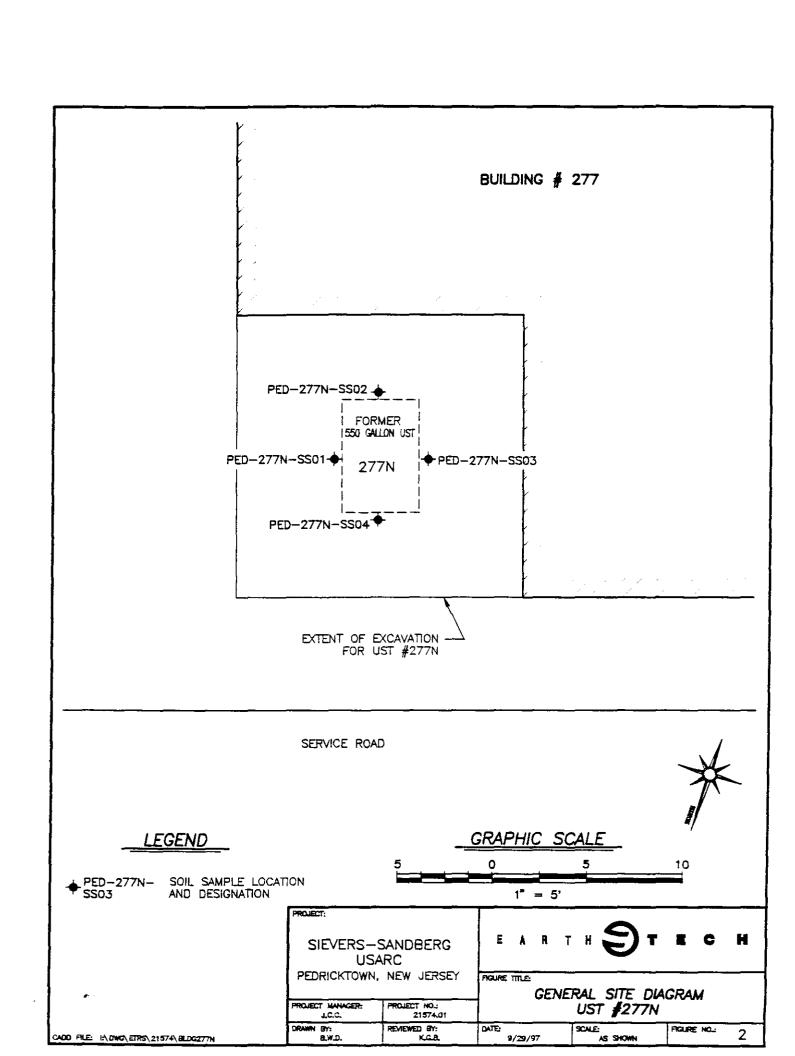
- On August 26, 1997, Earth Tech removed one 550-gallon, fiberglass UST used to store No. 2 fuel oil for Building No. 277.
- No holes or pitting were observed in the tank.
- The cleaned UST was transported for disposal to BFI of Philadelphia, Pennsylvania.
- No stained soils were observed in the tank excavation. Groundwater was not encountered in the excavation.
- PID field screening was performed for excavated soils and soil samples. Vapor readings ranged from 0.0 ppm to 7.0 ppm.
- Four confirmatory soil samples were collected from the UST excavation. Soil sample PED-277N-SS03, collected from the west end of the excavation, contained a TPH concentration of 110 mg/Kg, which is below the NJDEP criteria of 10,000 mg/Kg for total organic compounds in soils. The remaining three confirmatory samples had TPH concentrations below the method quantitation limit.

Based on the site investigation results, Earth Tech recommends no further action relative to former UST 277N at Building No. 277.

Appendix A

Figures





Appendix B NJDEP UST Closure Approval

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION BUREAU OF FIELD OPERATIONS CN-028, TRENTON, NJ 08625-0028

TMS #

C97-0793

UST #

0071994

SIEVERS-SANDBERG U.S. ARMY RESERVE CENTER BUILDING 273, ROUTE 130 PEDRICKTOWN

SALEM

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

REMOVAL OF: six 530 gallon #2 fuel\oil UST(s), and appurtenant piping.

SITE ASSESSMENT: Conduct a site investigation for the UST(s) and appurtenant piping specified in this approval in accordance with the Technical Requirements for Site Remediation, NJ.A.C. 7:26E.

The management of any excavated soils must follow the requirements listed in the Attachment enclosed within.

Note: The UNDERGROUND STORAGE TANK SERVICES CERTIFICATION ACT, NJSA. 58:10A-24, requires all services performed on an UST system for the purpose of complying with PL 1986, e.102 to be performed by or under the immediate on-site supervision of a person certified by the Department for that service. The certified person providing that service must be employed by a buistness that is also certified by the Department for that service,

CONTACT PERSON:

TELEPHONE:

JANIS CROWDER

804-354-5409

EFFECTIVE DATE:

08/14/97

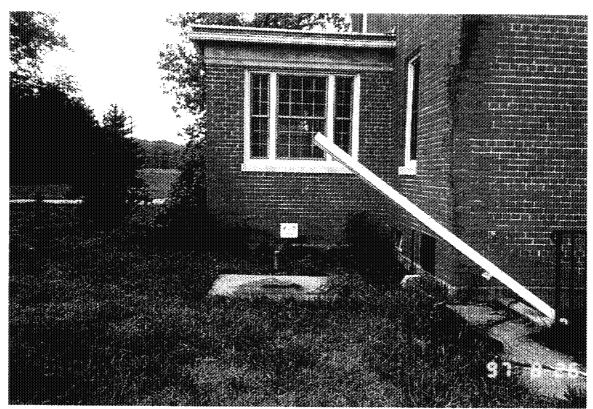
THIS FORM MUST BE DISPLAYED AT THE SITE DURING THE APPROVED ACTIVITY AND MUST BE MADE AVAILABLE FOR INSPECTIONS AT ALL TIMES.

Joshua Gradwohl, SUPERVISOR

BUREAU OF FIELD OPERATIONS

Appendix C

Photographic Documentation



Photograph No.: 1 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 277N)

Photographer: B. Rayfield

Description: Building 277N prior to excavation activities.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/25/97 View: South.



Photograph No.: 2 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 277N)

Photographer: B. Rayfield

Description: Excavation after tank removal.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/25/97 View: East.



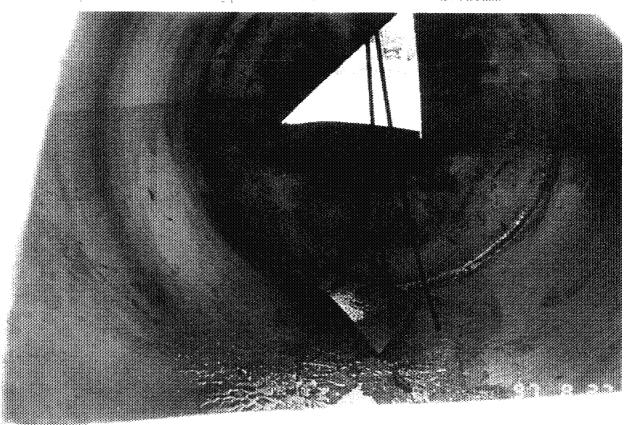
Photograph No.: 3 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 277N)

Photographer: B. Rayfield

Description: Tanks cleaned using pressure washer.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.



Photograph No.: 4 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 277N)

Photographer: B. Rayfield

Description: Cleaned UST with holes rendering it unusable.

Earth Tech Job No. 21574

D.O. No.: 076 Date: 8/27/97 View: Detail.



Photograph No.: 5 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 277N)

Photographer: B. Rayfield

Description: Tank was loaded into rolloff box for disposal.

Earth Tech Joh No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.



Photograph No.: 6 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 277N)

Photographer: B. Rayfield Description: Building 277N excavation backfilled and restored with seed and straw.

Earth Tech Job No. 21574 D.O. No.: 016

Date: 8/28/97

View: South.

Appendix D Tank Disposal Certificate

Sep_23_97_10:23A

STATES SECTION

P.03

Environmental Technology Incorporated (a sa Eagh Certification of Tank Disposal Tach)
USACE 21574 B/27497
Siever-Sandburg essence (only, Kanston, NT
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550-gallon Fiberglan Excellent
Harting Dil
Nuna
Clouning Certification
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Sovermental Testinology treorperated 8/27/97
Transportation
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Appendix E

Liquid Disposal Manifest

ENVIRONMENTAL SERVICES Please type or print in block letters. (Form designed for use on eilte (12-pitch) typewriter.) 1. Generator's US EPA ID No. **NON-HAZARDOUS** 2. Page 1 Document No. 83101210101510168 MANIFEST Generators Name and Mailing Address Selvers-Sandberg Reserve Ctr. A. Non-hazardous Manifest Document Num-NHZ0200 /448 Route #130 3. State Generator's ID Padricktown NJ 06067 Generator's Phone (956) 759-7143 SAME Transporter 1 Company Name US EPA ID Number Casie Ecology Oil Salvage, Inc. 본 년 15 19 년 15 19 19 15 16 19 13 C. State Trans. 10 3 1 Transporter 2 Company Name US EPA ID Number D. Transporter's Phone (சிற ு) 9 +6 -4 E. State Trans. ID 9. Designated Facility Name and Site Address US EPA IO Number F. Transporter's Phone (Masia Ecology Dil Salmaga, Inc. Tra 3109 N. MILL Rd - Zasie Protank G. State Facility silon: Hpns EN 12 15 16 14 15 19 19 15 16 19 19 HL Facility's Phone (うこゆ) analand NJ 08350 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) Unit Total Waste No. Wt/Voii Cuantity วัฒนารายการ เปลี่ยวการเกาะเหมืองรับ G 41 - 23 T A b. 0 đ. Additional Descriptions for Materials Listed Above g Codes for Wastes Listed Above 11 141 Special mandling instructions and Additional Information <u>क् बर्ग क्षेत्रकरूलका १७ ५ वृह्यपुरव्यक्त स्केट्रेन्न्यर्नेन्क्क रि.सी.</u> 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurate scriped above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition according to applicable international and national government regulations I hereby certify that the above-named material is not hazardous waste as defined by 40 CFR Part 261, 264 and 279 ϵ -inj applicable state in k. Printed/Typed Name Signature Month Day 18 15 12 1 17 Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Signature 1v [-- [... | -] 18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Month Day (| | | | 19. Discrepancy Indication Space



20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

| Signature

Month Day

Appendix F

Laboratory Certificates and Chain-of-Custody

IEA Project #:

2070-038 IEA Sample #: 9708533-01 Client Name: Earth Tech

Matrix: Soil Date Received: 08/28/97 Date Sampled: 08/26/97

Client Proj. I.D.: 22818 Pedricktown

Sample I.D.: PED-277N-SS01

		Quantitation		Date Date
Parameter	Method	Limits	Results	Prepared Analyzed Analyst
######################################				
TPH by IR	EPA 418.1	10 mg/Kg	BOL	09/09/97 09/11/97 AW

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

 IEA Project #:
 2070-038
 Matrix:
 Soil

 IEA Sample #:
 9708533-02
 Date Received:
 08/28/97

 Client Name:
 Barth Tech
 Date Sampled:
 08/26/97

Client Proj. I.D.:22818 Pedricktown
Sample I.D.: PED-277N-SS02

		Quantitation		Date Date
Parameter	Method	Limits	Results	Prepared Analyzed Analyst
3867442222242222				
TPH by IR	EPA 418.1	11 mg/Kg	BQL	09/09/97 09/11/97 BW

Comments:

TPH by IR = Pecroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

 IEA Project #:
 2070-038
 Matrix:
 Soil

 IEA Sample #:
 9708533-03
 Date Received:
 08/28/97

 Client Name:
 Earth Tech
 Date Sampled:
 08/26/97

Client Proj. I.D.:22818 Pedricktown
Sample I.D.: PED-277N-SS03

	Qt	antitation		Date Date
Parameter	Method	Limits	Results	Frepared Analyzed Analyst
도쿄=============	:======================================			
TPH by IR	EPA 418.1	12 mg/Kg	110	09/09/97 09/11/97 BW

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

21008/021

Industrial & Environmental Analysts, Inc. (IEA) Petroleum Hydrocarbons by IR

IEA Project #: 2070-038
IEA Sample #: 9708533-04
Client Name: Earth Tech Matrix: Date Received: 08/28/97 Date Sampled: 08/26/97

Client Proj. I.D.: 22818 Pedricktown Sample I.D.: PED-277N-SS04

		•		
		Quantitation		Date Date
Parameter	Method	Limits 5	Results	Prepared Analyzed Analyst
		462555555555555555555555555555555555555		
TPH by IR	EPA 418.1	12 mg/Kg	BQL	09/09/97 09/11/97 BW

Comments:

TPH by IR - Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

INC.XUT	IEA,NC
15 Wiggins Ave., Bedlord, MA 01730	-

relephone: (617) 275-3330 Fax: (617) 275-7478

CHAIN OF CUSTODY RECORD

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15 Wigglins Ave., Bedford, MA 01730

Telephone: (617) 275-3330

Fax: (617) 275-7478

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CHAIN OF CUSTODY RECORD

WORK ORDER #:		
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DUE DATE

COMPANY: BARTH TECH ADDRESS: 2229 TomburnSt. Richmond, VA 23230 PHONE #: (804) 358-5858 FAX #: (804) 354-0300 P.O. #: MG5010 C5353 PROJECT MANAGER: JANIS CROWDER, PROJECT ID/LOCATION: Fedvicktomin 22818								SAMPLE TYPE CONTAINER TYPE 1. WASTEWATER P - PLASTIC 2. SOIL G - GLASS 3. SLUDGE V - VOA 4. OIL 5. DRINKING WATER 6. WATER (GWMW/SW)					ANALYSES								
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Underground Storage Tank Closure Report

Prepared for: U.S. Army Corps of Engineers Metro New York Area Building 611, Fort Totten Flushing, New York 11359

Site:

Building No. 277 **UST No. 277S** Sievers-Sandberg United States Army Reserve Center Pedricktown, New Jersey

Prepared by: Earth Tech, Inc. 2229 Tomlynn Street Richmond, Virginia 23230

October 23, 1997

Contract No. DACW31-95-D-0097 Delivery Order No. 0015

ET Job No. 21574

Client: United States Army Corps of Engineers
Project Name: Sievers-Sandberg United States Army Reserve Center, Building No. 277S
ET Job No.: 21574

This document has been reviewed for technical content and quality, clarity, and style in accordance with the internal QA/QC procedures of Earth Tech, Inc.

Acknowledgments:		
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EXECUTIVE SUMMARY

This report details the clean closure of an underground storage tank (UST) and fulfills the requirements of site investigation reporting activities as detailed in the New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (NJAC 7:26E - 3.10) and was conducted in accordance with the approved closure plan for the site.

Earth Tech was contracted by the U.S. Army Corps of Engineers (USACE), Baltimore District, to remove a 550-gallon heating oil UST (designated 278S) located east of Building No. 277 at the Sievers-Sandberg United States Army Reserve Center (USARC) in Pedricktown, New Jersey. The work was conducted under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. Earth Tech is an NJDEP-approved Closure Contractor (Registration No. US00537).

The UST was previously used to store No. 2 fuel oil for heating purposes and was empty. On August 26, 1997, Earth Tech excavated and removed the UST. Upon removal, the condition of the UST was examined by an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The UST was in good condition with no visible holes. No soil staining was observed beneath the former UST and groundwater was not encountered in the excavation. Earth Tech cut and cleaned the UST, which was then transported by Superior Sanitation Services to BFI of Philadelphia, Pennsylvania, for disposal. The rinsate water generated during tank cleaning activities was transported by Casie Protank Environmental Services for disposal to Casie Ecology Oil Salvage, Inc. of Vineland, New Jersey.

No soil staining was observed beneath the former UST. Photoionization detector (PID) field screening of excavated soil and soil samples indicated volatile organic vapor levels ranging from 0.0 parts per million (ppm) to 5.0 ppm. The excavated soils were used as backfill material.

Earth Tech collected four confirmatory soil samples from the excavation floor. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1, using an NJDEP-certified laboratory. Three samples contained TPH concentrations below the method quantitation limit of 11 milligrams per kilogram (mg/Kg). One sample, PED-277S-SS04, had a TPH concentration of 14 mg/Kg, which is below the most stringent NJDEP Soil Cleanup Criteria of 10,000 mg/Kg for total organic compounds in soil. All sampling was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4).

Based on field observations and analytical data, Earth Tech recommends no further action relative to former UST 277S at Building No. 277.

1.0 INTRODUCTION

Earth Tech an underground storage tank (UST) Closure Contractor (Certification No. US00537) approved by the New Jersey Department of Environmental Protection (NJDEP), was contracted by the United States Army Corps of Engineers (USACE), Baltimore District, to remove USTs at the Sievers-Sandberg United States Army Reserve Center (USARC), Pedricktown, New Jersey, under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. This report details the clean closure of an UST located at Building No. 277 of the Sievers-Sandberg USARC. A Site Location Map is included as Figure 1 in Appendix A. This report fulfills the requirements of site investigation reporting as detailed in the New Jersey Technical Requirements for Site Remediation (NJAC 7:26E-3.10), and provides an overview of the site investigation activities, analytical results, and recommendations.

The Sievers-Sandberg USARC property was acquired by the USACE in 1917, and the Delaware Ordnance Depot was established at Pedricktown in 1918. The depot became the backup storage facility for the Picatinny and Frankfort Arsenals and the Aberdeen Proving Ground. In 1960, the Pedricktown facility became the headquarters for the 42nd and 43rd Artillery, which commanded the Nike Missile Sites in the Philadelphia area. In 1965, the Salem County Technical Institute gained control of the site. In the late 1960s, the 79th Army Reserve Command and the 21st Corps were replaced by the 78th Division of the Army Reserves, which is still stationed at the facility. The eastern portion of the property is currently leased by Salem Community College.

Building No. 277 is a former residential building. A 550-gallon fiberglass UST (designated UST 277S) at the site was formerly used to store No. 2 heating oil for the building. The UST was removed because the source of heat at the building is being converted from heating oil to natural gas. See Plate A1 in Appendix A for a site plan of the Sievers-Sandberg USARC. The UST was not a regulated tank (per NJAC 58:10); however, the UST was registered and an UST Closure Plan submitted to the NJDEP prior to initiating closure activities. The NJDEP UST Closure Approval is included in Appendix B.

2.0 SITE ASSESSMENT

On August 26, 1997, Earth Tech removed one 550-gallon fiberglass UST at the site. Figure 2 in Appendix A shows the general site layout and the location of the UST. Photographic documentation of site activities is included in Appendix C. The UST was oriented parallel to the west side of Building No. 277. No utility lines were located in the vicinity of the UST. A second tank (UST 277N) was removed from Building No. 277 and a separate tank closure report was prepared and submitted to the NJDEP.

Upon tank removal, the UST condition was examined by Ms. Christina Harris, an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The tank was observed to be in good condition with no holes or pitting. No soil staining was observed in the excavation or along the excavation sidewalls. The UST measured approximately 6 feet long by 4 feet in diameter. Earth Tech personnel cut the UST at both ends to provide ventilation and access for tank cleaning. The tank was then cleaned using a pressure washer. The rinsate was collected by Casie Protank Environmental Services and transported for disposal to Casie Ecology Oil Salvage, Inc. of Vineland, New Jersey. The tank disposal certificate is included in Appendix D. The liquid disposal manifest is included in Appendix E.

Earth Tech personnel examined the UST excavation after removing the tank. No soil staining was observed beneath the former UST. Groundwater was not encountered in the excavation. Based on the photoionization detector (PID) field screening of excavated soils, no soils were deemed contaminated (i.e., no PID readings greater than 100 parts per million [ppm]).

Confirmatory soil samples were collected in accordance with NJAC 7:26E-6.4. Earth Tech personnel collected a total of four soil samples from the walls of the excavation (PED-277S-SS01, PED-277S-SS02, PED-277S-SS03, and PED-277S-SS04). Field screening of each soil sample using the PID indicated volatile organic vapor readings ranging from 0.2 ppm to 0.4 ppm. Figure 2 in Appendix A depicts the soil sample locations. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1. The samples were analyzed by Industrial & Environmental Analysts, Inc. (IEA), an NJDEP-certified laboratory.

Three samples contained TPH concentrations below the method quantitation limit of 11 milligrams per kilogram (mg/Kg). One sample, PED-277S-SS04, had TPH concentrations of 14 mg/Kg, which is below the most stringent NJDEP Soil Cleanup Criteria of 10,000 mg/Kg for total organic compounds in soil. All sampling was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4). Certificates of analysis and chain-of-custody forms are included as Appendix F. Because the tank is not regulated, an executed NJDEP Site Inspection Report Checklist is not included in this report.

Table 1 Soil Analytical Results

Sample Designation and Location	Date Sampled	Depth (fbg)	PID (ppm)	TPH 418.1 (mg/Kg)	Quantitation Limits (mg/Kg)
PED-277S-SS01 east excavation floor	8/26/97	9	0.4	BQL	11
PED-277S-SS02 south excavation floor	8/26/97	9	0.2	BQL	I 1
PED-277S-SS03 west excavation floor	8/26/97	9	0.3	BQL	11
PED-277S-SS04 north excavation floor	8/26/97	9	0.3	14	11

Notes:

TPH Total petroleum hydrocarbons

fbg Feet below grade

mg/Kg Milligram per kilogram PID Photoionization detector

ppm Parts per million

BQL Below quantitation limits

The stockpiled soil generated during UST removal, along with imported backfill, was used to backfill the excavation. No soils associated with the UST closure were removed from the site.

3.0 CONCLUSIONS

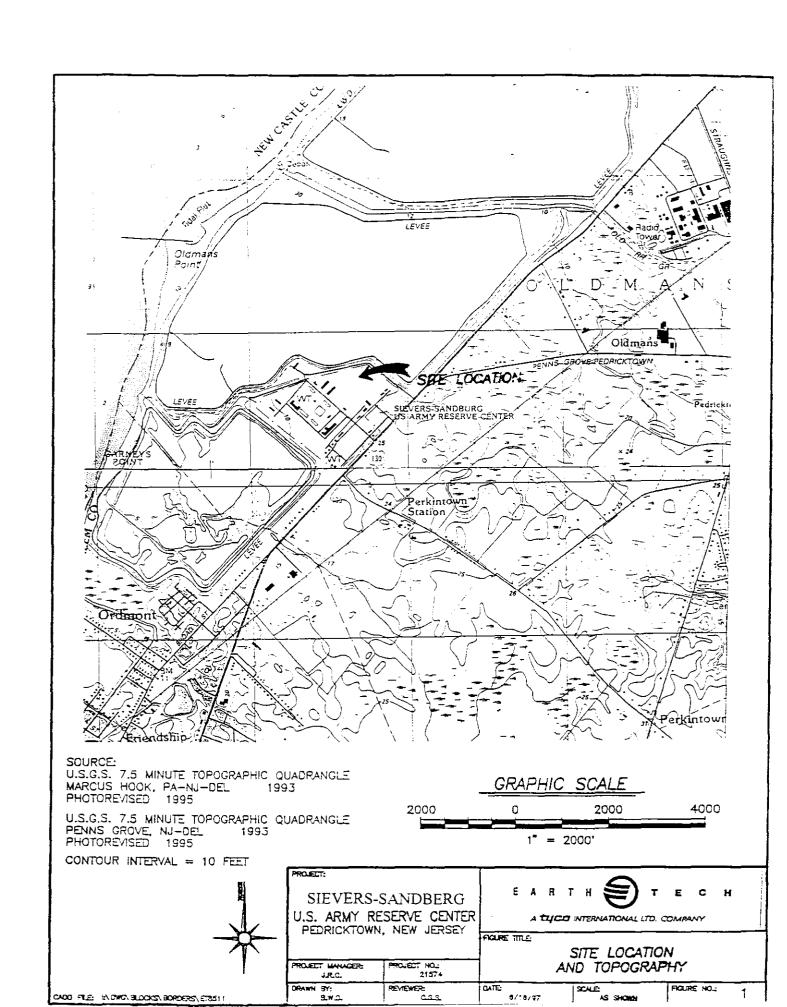
The following is a summary of Earth Tech's site investigation, findings, and tank closure activities for UST 277S at Building 277 on the Sievers-Sandberg USARC:

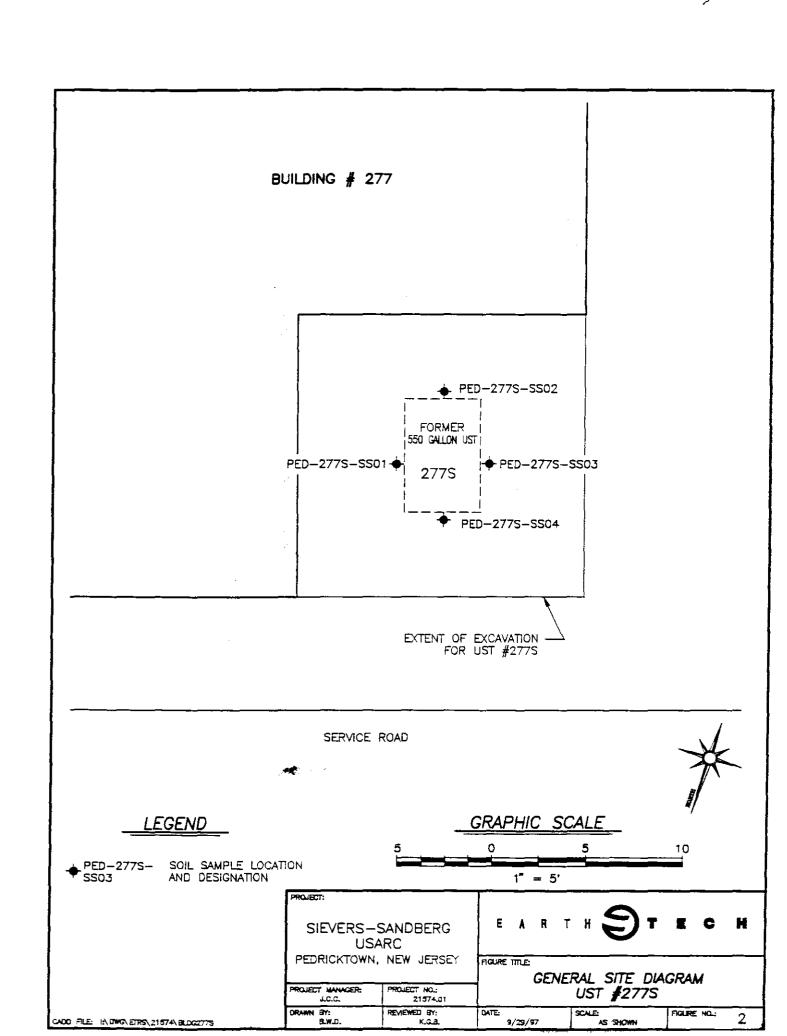
- On August 16, 1997, Earth Tech removed one 550-gallon, fiberglass UST used to store No. 2 heating oil for Building No. 277.
- No holes or pitting were observed in the tank.
- The cleaned UST was transported for disposal to BFI of Philadelphia, Pennsylvania.
- No stained soils were observed in the tank excavation. Groundwater was not encountered in the excavation.
- PID field screening was performed for excavated soils and soil samples. Vapor readings ranged from 0.0 ppm to 5.0 ppm.
- Four confirmatory soil samples were collected from the UST excavation. Soil sample PED-277S-SS04, collected from the north end of the excavation, indicated a TPH concentration of 14 mg/Kg, which is below the NJDEP criteria of 10,000 mg/Kg for total organic compounds in soils. The remaining three confirmatory samples had TPH concentrations below the method quantitation limit of 11 mg/Kg.

Based on the site investigation results, Earth Tech recommends no further action relative to former UST 277S at Building No. 277.

Appendix A

Figures





Appendix B NJDEP UST Closure Approval

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION BUREAU OF FIELD OPERATIONS CN-028, TRENTON, NJ 08625-0028

TMS #

C97-07-93

UST #

0071994

SIEVERS-SANDBERG U.S. ARMY RESERVE CENTER BUILDING 273, ROUTE 130 PEDRICKTOWN

SALEM

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

REMOVAL OF: six 550 gallon #2 fuel\oll UST's), and appurtenant piping.

SITE ASSESSMENT: Conduct a site investigation for the UST(s) and appurtenant piping specified in this approval in accordance with the Technical Requirements for Site Remediation, NJAC. 7:26E.

The management of any excavated soils must follow the requirements listed in the Attachment enclosed within.

Note: The UNDERGROUND STORAGE TANK SERVICES CERTIFICATION ACT, NJS.A. 58:10A-2A, requires all services performed on an UST system for the purpose of complying with PL1986, c.102 to be performed by or under the immediate on-site supervision of a person certified by the Department for that service. The certified person providing that service must be employed by a buisness that is also certified by the Department for that service.

CONTACT PERSON:

TELEPHONE:

JANIS CROWDER

804-354-6409

EFFECTIVE DATE:

08/14/97

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

Joshua Gradwohl, SUPERVISOR

BUREAU OF FIELD OPERATIONS

Appendix C

Photographic Documentation



Photograph No.: 1 Contract No.: DACW31-95-0-(8997 Location: Pedricktown U.S. Army Reserve Center (Bldg 2778)

Photographer: B. Rayfield

Description: Boilding 2778 prior to excavation activities.

Earth Tech Joh No. 21574

D.O. No.: 016 Date: 8/25/97 View: South.



Photograph No.: 2 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bidg 2778)

Photographer: B. Rayfield

Description: Excavation after tank removal.

Earth Tech Job No. 21574

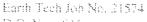
D.O. No. - 016 Date: 8/25/97 View: Detail.



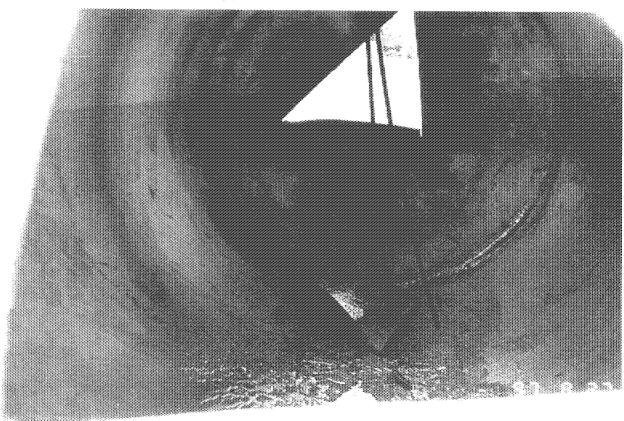
Photograph No.: 3 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 277S)

Photographer: B. Rayfield

Description: Tanks cleaned using pressure washer.



D.O. No.: 016 Date: 8/27/97 View: Detail.



Photograph No.: 4 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 277S) Photographer: B. Rayfield

Description: Cleaned UST with holes rendering it unusable.

Earth Tech Job No. 21574

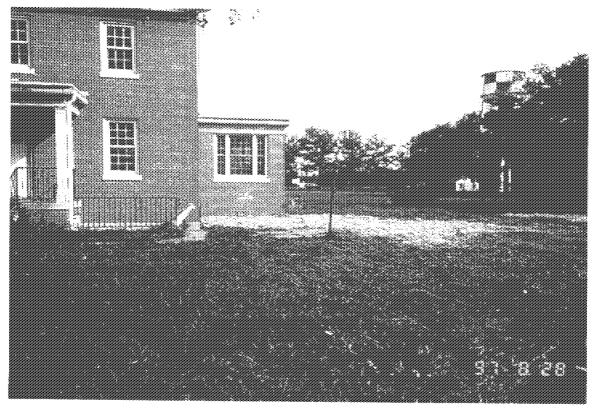
D.O. No.: 016 Date: 8/27/97 Viewi Detail.



Photograph No.: 5 Centract No.: DACW3)-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2778) Photographer: B. Rayfield

Description: Tank was loaded into rolleff box for disposal.

Earth Tech Job No. 21574 D.O. No.: 016 Date: 8/27/97 View: Detail.



Phetograph No.: 6 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2778)

Photographer: B. Royfield

Earth Tech Job No. 21574 D.O. No.: 016 Date: 8/28/97

Description: Building 277S excavation backfilled and restored with seed and straw. View: South,

Appendix D

Tank Disposal Certificate

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Appendix E

Liquid Disposal Manifest

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NON-HAZARDOUS MANIFEST	1. Generator's US EPA IO No. ATD以口IOUFEk	068 Document No.	2. Page 1 8 of 5	
Generator's Name and Mailing Address	Servers-Sandberg Rese	rve Ctr.	A. Non-hazzardou	s Manifest Document N
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 4. Generator's Phone (956) 15 5. Transporter 1 Company Name 		S EPA ID Number	SAME	
• •			6 61 7	
7. Transporter 2 Company Name	79 Inc. <u>N 10 10 14</u>	6 (5 (9 (9 15 (6 (9 15 EPA (D Number	C. State (jane. 19)	3 1 2 6 15
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according to applicable international ar	d, packed, marked, and labeled, and are in idinational government regulations.	n all respects in proper con	ditic in transport by	y nighway
I hereby certify that the above-named ma	tenal is not hazardous waste as defined by	40 CFR Part 261, 264 and 2	79 - пу а срас авіе s	tate in v.
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Appendix F Laboratory Certificates and Chain-of-Custody

IEA Project #: IEA Sample #:

2070-038 9708533-05 Earth Tech

Macrix: Date Received: 08/28/97

Client Name:

Date Sampled: 08/26/97

Client Proj. I.D.: 22818 Pedricktown Sample I.D.: PED-277S-SS01

	. Ğn	antitation		Date	Date	
Parametar	Method	Limits	Results		Analyzed	•
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TPH by IR	EPA 419.1	ll mg/Kg	BQL	39/09/97	09/11/97	BW

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

IEA Project #: 2070-038 IEA Sample #: 9708533-06 Client Name: Earth Tech Matrix: Soil Date Received: 08/28/97 Date Sampled: 08/26/97

Client Proj. I.D.:22818 Pedricktown Sample I.D.: PED-277S-SS01D

	Qu	antitation		Date	Date
Parameter	Method	Limits	Results	Prepared	Analyzed Analyst
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TPH by IR	EPA 418.1	ll mg/Kg	BQL	39/09/97	09/11/97 BW

Comments:

TPH by IR = Fetroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits.

 IEA Project #:
 2070-038
 Matrix:
 Soil

 IEA Sample #:
 9708533-07
 Date Received:
 08/28/97

 Client Name:
 Earth Tech
 Date Sampled:
 08/26/97

Client Proj. I.D.:22818 Pedricktown
Sample I.D.: PED-277S-SS02

Quantitation Date Date
Parameter Method Limits Results Prepared Analyzed Analyst
TPH by IR BPA 418.1 11 mg/Kg BQL 09/09/97 09/11/97 BW

Comments:

TPH by IR \star Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

2012/021

Industrial & Environmental Analysts, Inc. (TEA) Petroleum Hydrocarbons by IR

IEA Project #: 2070-038 IEA Sample #: 9708533-08 Client Name: Earth Tech

Matrix: Soil Date Received: 08/28/97 Date Sampled: 08/26/97

Client Proj. I.D.: 22818 Pedricktown Sample I.D.: PED-2775-SS03

	Qu	antitation		Date	Date
Parameter	Method	Limits	Results	-	nalyzed Analyst
	2			========	
TPH by IR	EPA 419.1	ll mg/Kg	BQL	09/09/97 0	9/11/97 BW

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

IEA Project #: 2070-038 IEA Sample #: 9708533-09 Client Name: Earth Tech

Matrix: Sail Date Received: 08/28/97 Date Sampled: 08/26/97

Client Proj. I.D.:22818 Pedricktown sample I.D.: PED-277S-SS04

	Qua	antitation		Date Date
Parameter	Method	Limits	Results	Prepared Analyzed Analyst
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TPH by IR	EPA 418.1	11 mg/Kg	14	09/09/97 09/11/97 BW

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BCL = Below Quantitation Limits



Fax: (617) 275-7478

CHAIN OF CUSTODY RECORD

WORK ORDER #:_	
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Are there any other known or suspected

contaminants in these samples other than

13	MINGHITZ AND., DOGIDIA, MA OTTE
2	Telephone: (617) 275-333
	Fax: (617) 275-747

COMPANY: FARTH TECH **ANALYSES CONTAINER TYPE** SAMPLE TYPE Richmond, Ut 23230 ADDRESS: 1. WASTEWATER P - PLASTIC G-GLASS 2. SOIL 3. SLUDGE V - VOA PHONE #: (804) 358-5858 FAX #: (804) 354-0300
P.O. #: MUSO OF 353 4 OIL P.O. #: 5. DRINKING WATER PROJECT MANAGER: JANIS CROWDER 6. WATER (GW/MW/SW) 7. OTHER (SPECIFY PROJECT ID/LOCATION: Pedricktonin SPECIAL INSTRUCTIONS/COMMENTS CONTAINER **PRESERVATIVE** SAMPLE SAMPLING **COXIKON** SAMPLE IDENTIFICATION SIZE TYPE DATE TIME TYPE 4" 1520 407 Pen-2785-5501 9-10-278 SOR 407. 1521 PED-2785-SS02 402 4ºC 522 XIPPM Irvintul PED-2785-5503 1602 1523 PEO-2785-554 3 8/27/1440 llich 4°C PED-DC 6 hama 2010-030 8-26 -97 AMPLED BY: DATE: QUOTATION #: schnaka TIME: RUSH BUSINESS DAY TURN AROUND ELINQUISHED BY .97 RECEIVED BY: FED S DATE: DATE: 1-1-ROUTINE TIME: MCBILL# 4007177355 TIME Sample disposal information RECEIVED FOR LAB BY: **ELINQUISHED BY:** 28 - 97 DATE: DATE:

TIME:

· 100.

Underground Storage Tank Closure Report

Prepared for:

U.S. Army Corps of Engineers Metro New York Area Building 611, Ft. Totten Flushing, New York 11359

Site:

Building No. 278 UST No. 278S Sievers-Sandberg United States Army Reserve Center Pedricktown, New Jersey

Prepared by: Earth Tech, Inc. 2229 Tomlynn Street Richmond, Virginia 23230

October 23, 1997

Contract No. DACW31-95-D-0097 Delivery Order No. 0015

ET Job No. 21574

Client: United States Army Corps of Engineers Project Name: Sievers-Sandberg United States Army Reserve Center, Building No. 278S

ET Job No.: 21574

This document has been reviewed for technical content and quality, clarity, and style in accordance with the internal QA/QC procedures of Earth Tech, Inc.

Acknowledgments:		
Technical Review:		
Candie Smeredo (Name)	EN SCIENTST	$\frac{\frac{10/23/97}{\text{(Date)}}$
(Name)	(Title)	(Date)
Style Review:		
Slipha May Ruffin (Name)	Pub Manage	(Date)
(Name)	(title)	(Date)
Final Review:		
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C (Name)	(Title)	(Date)
New Jersey Professional Engineer (No. 330);	
Jer/Mame)	Associate Principal	10-16-47 (Date)
// (((dine))	(Title)	(Date)

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EXECUTIVE SUMMARY

This report details the clean closure of an underground storage tank (UST) and fulfills the requirements of site investigation reporting activities as detailed in the New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (NJAC 7:26E - 3.10) and was conducted in accordance with the approved closure plan for the site.

Earth Tech was contracted by the U.S. Army Corps of Engineers (USACE), Baltimore District, to remove a 550-gallon UST located east of Building No. 278 at the Sievers-Sandberg United States Army Reserve Center (USARC) in Pedricktown, New Jersey. The work was conducted under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. Earth Tech is an NJDEP-approved Closure Contractor (Registration No. US00537).

The UST was previously used to store No. 2 heating oil for heating purposes and was empty. On August 26, 1997, Earth Tech excavated and removed the UST. Upon removal, the condition of the UST was examined by an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The UST was in good condition with no visible holes. No soil staining was observed beneath the former UST and groundwater was not encountered in the excavation. Earth Tech cut and cleaned the UST, which was then transported by Superior Sanitation Services to BFI of Philadelphia, Pennsylvania, for disposal. The rinsate water generated during tank cleaning activities was removed by Casie Protank Environmental Services and transported for disposal to Casie Ecology Oil Salvage, Inc., of Vineland, New Jersey.

No soil staining was observed beneath the former UST. Photoionization detector (PID) field screening indicated volatile organic vapor levels ranging from 0.0 parts per million (ppm) to 7.0 ppm. The excavated soils were used as backfill material.

Earth Tech collected four confirmatory soil samples from the excavation sidewalls. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1, using an NJDEP-certified laboratory. All of the confirmatory soil samples (PED-278S-SS01, PED-278S-SS02, PED-278S-SS03, and PED-278S-SS04) contained TPH concentrations below the method quantitation limits of 12 milligrams per kilogram (mg/Kg), 11 mg/Kg, 10 mg/Kg, and 11 mg/Kg, respectively. All sampling and analysis was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4).

Based on field observations and analytical data, Earth Tech recommends no further action relative to the former UST 278S at Building No. 278.

1.0 INTRODUCTION

Earth Tech an underground storage tank (UST) Closure Contractor (Certification No. US00537) approved by the New Jersey Department of Environment (NJDEP), was contracted by the United States Army Corps of Engineers (USACE), Baltimore District, to remove USTs at the Sievers-Sandberg United States Army Reserve Center (USARC), Pedricktown, New Jersey, under Contract No. DACW31-95-D-0097, Delivery Order No. 0015. This report details the clean closure of an UST located at Building No. 278 of the Sievers-Sandberg USARC. A Site Location Map is included as Figure 1 in Appendix A. This report fulfills the requirements of site investigation reporting as detailed in the New Jersey Technical Requirements for Site Remediation (NJAC 7:26E-3.10), and provides an overview of the site investigation activities, analytical results, and recommendations.

The Sievers-Sandberg USARC property was acquired by the USACE in 1917, and the Delaware Ordnance Depot was established at Pedricktown in 1918. The depot became the backup storage facility for the Picatinny and Frankfort Arsenals and the Aberdeen Proving Ground. In 1960, the Pedricktown facility became the headquarters for the 42nd and 43rd Artillery, which commanded the Nike Missile Sites in the Philadelphia area. In 1965, the Salem County Technical Institute gained control of the site. In the late 1960s, the 79th Army Reserve Command and the 21st Corps were replaced by the 78th Division of the Army Reserves, which is still stationed at the facility. The eastern portion of the property is currently leased by Salem Community College.

Building No. 278 is a former residential building. A 550-gallon fiberglass UST (designated 278S) at the site was formerly used to store No. 2 heating oil for heating the building. The UST was removed because the heat source for the building is being converted from heating oil to natural gas. See Plate A1 in Appendix A for a site plan of the Sievers-Sandberg USARC. The UST was not a regulated tank (per NJAC 58:10); however, the UST was registered and an UST Closure Plan submitted to the NJDEP prior to initiating closure activities. The NJDEP UST Closure Approval is included in Appendix B.

2.0 SITE ASSESSMENT

On August 26, 1997, Earth Tech removed one 550-gallon fiberglass UST at the site. A second tank (UST 278N) was removed from Building 278 and a separate tank closure report was prepared and submitted to the NJDEP. Figure 2 in Appendix A shows the general site layout and the location of the UST. Photographic documentation of site activities is included in Appendix C. The UST was oriented parallel to the west side of Building No. 278. No utility lines were located in the vicinity of the UST.

Upon tank removal, the UST condition was examined by Ms. Christina Harris, an NJDEP-licensed UST Subsurface Evaluator (License No. 0017909). The tank was observed to be in good condition with no holes or pitting. No soil staining was observed in the excavation or along the excavation sidewalls. The UST measured approximately 6 feet long by 4 feet in diameter. Earth Tech personnel cut the UST at both ends to provide ventilation and access for tank cleaning. The tank was then cleaned using a pressure washer. The rinsate water was collected by Casie Protank Environmental Services and transported to Casie Ecology Oil Salvage, Inc. of Vineland, New Jersey, for disposal. The tank disposal certificate is included in Appendix D. The liquid disposal manifest is included in Appendix E.

Earth Tech personnel examined the UST excavation after removing the tank, No soil staining was observed beneath the former UST. Groundwater was not encountered in the excavation. Based on the PID field screening, no soils were deemed contaminated (i.e., no photoionization detector [PID] readings greater than 100 parts per million [ppm]).

Confirmatory soil samples were collected in accordance with NJAC 7:26E-6.4. Earth Tech personnel collected a total of four soil samples from the walls of the excavation (PED-278S-SS01, PED-278S-SS02, PED-278S-SS03, and PED-278S-SS04). Field screening of each soil sample using the PID indicated volatile organic vapor readings ranging from 0.0 ppm to 7.0 ppm. Figure 2 in Appendix A depicts the soil sample locations. Each sample was submitted for laboratory analysis for the presence and concentration of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 418.1. The samples were analyzed by Industrial & Environmental Analysts, Inc. (IEA), an NJDEP-certified laboratory.

All four samples contained TPH concentrations below the method quantitation limit. All sampling and analysis was performed in accordance with NJDEP Post-Remedial Action Requirements (NJAC 7:26E - 6.4). Certificates of analysis and chain-of-custody forms are included as Appendix F. Because the tank is unregulated, an executed NJDEP Site Inspection Report Checklist is not included in this report.

Table 1 Soil Analytical Results

Sample Designation and Location	Date Sampled	Depth (fbg)	PID (ppm)	TPH 418.1 (mg/Kg)	Quantitation Limits (mg/Kg)
PED-278S-SS01	8/26/97	9	1.2	BQL	12
east excavation floor				_	
PED-278S-SS02	8/26/97	9	7.0	BQL	11
south excavation floor				`	
PED-278S-SS03	8/26/97	9	1.2	BQL	10
west excavation floor				`	
PED-278S-SS04	8/26/97	9	0.8	BQL	11
north excavation floor				`	

Notes:

TPH Total petroleum hydrocarbons

fbg Feet below grade

mg/Kg Milligram per kilogram

PID Photoionization detector

ppm Parts per million

BQL Below quantitation limit

The stockpiled soil generated during UST removal, along with imported backfill, was used to backfill the excavation. No soils associated with the UST closure were removed from the site.

3.0 CONCLUSIONS

The following is a summary of Earth Tech's site investigation, findings, and tank closure activities for UST No. 278S at Building No. 278 on the Sievers-Sandberg USARC:

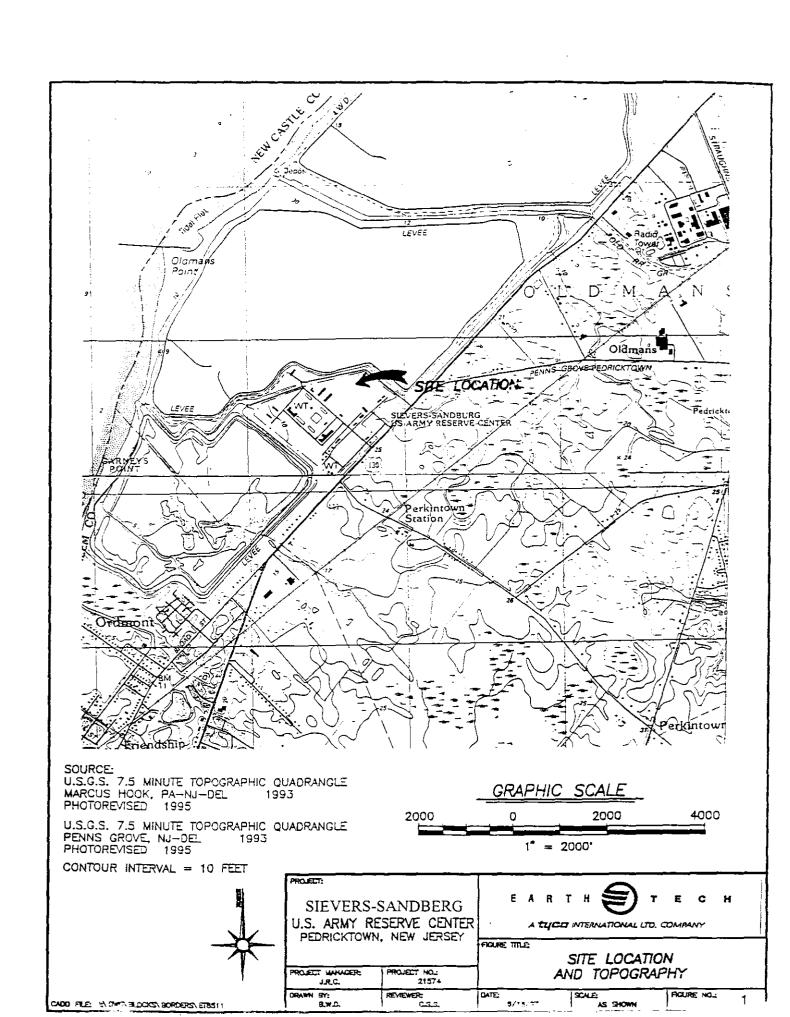
• On August 26, 1997, Earth Tech removed one 550-gallon, fiberglass UST used to store No. 2 heating oil for Building No. 278.

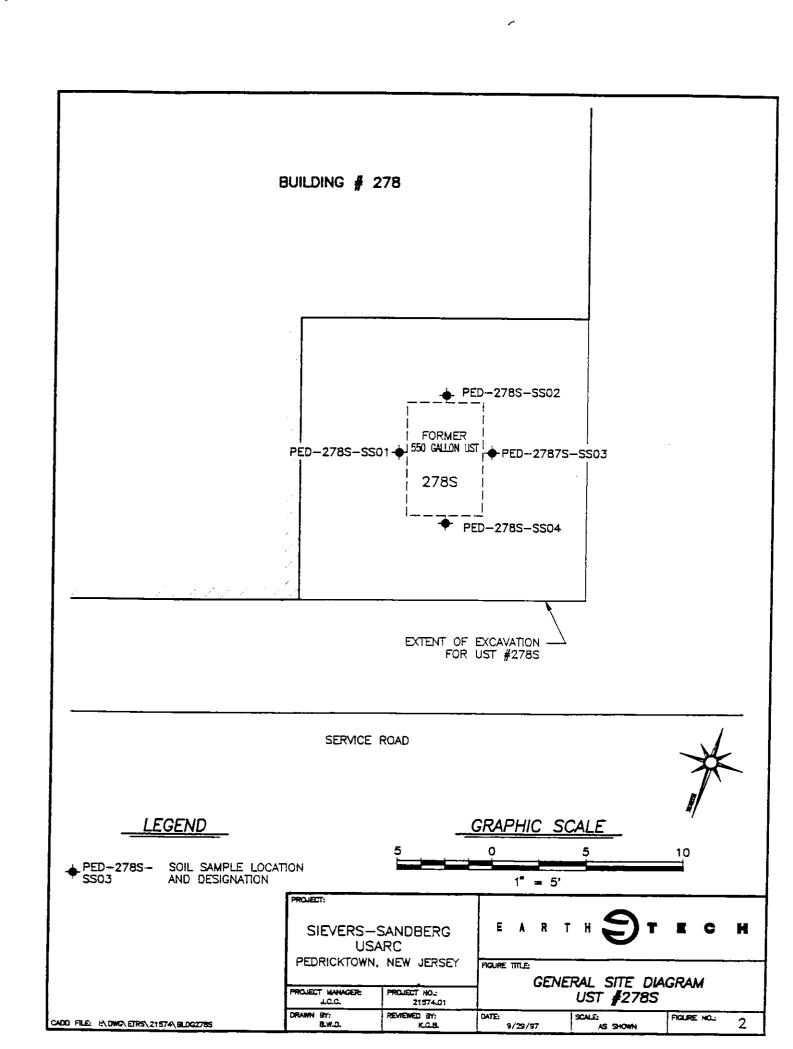
- No holes or pitting were observed in the tank.
- The cleaned UST was transported for disposal to BFI of Philadelphia, Pennsylvania.
- No stained soils were observed in the tank excavation.
- PID field screening was performed for excavated soils and soil samples. Vapor readings ranged from 0.0 ppm to 7.0 ppm.
- Four confirmatory soil samples were collected from the base of the UST excavation. The analytical results of soil samples indicated TPH concentrations below the method quantitation limits.

Based on the site investigation results, Earth Tech recommends no further action relative to former UST 278S at Building No. 278.

Appendix A

Figures





Appendix B NJDEP UST Closure Approval

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION BUREAU OF FIELD OPERATIONS CN-028, TRENTON, NJ 08625-0028

TMS #

C97-0793

UST #

0071994

SIEVERS-SANDBERG U.S. ARMY RESERVE CENTER BUILDING 273, ROUTE 130 PEDRICKTOWN

SALEM

THE ABOVE LISTED FACILITY IS HEREBY GRANTED APPRÒVAL TO PERFORM.
THE FOLLOWING ACTIVITY IN ACCORDANCE WITH NJ.A.C. 7:14b-1 et seq:

REMOVAL OF: six 550 gallon #2 fuel\oil UST(s), and appurtenant piping.

SITE ASSESSMENT: Conduct a site investigation for the UST(s) and appurtenant piping specified in this approval in accordance with the Technical Requirements for Site Remediation, NJ.A.C. 7:26E.

The management of any expansed soils must follow the requirements listed in the Attachment enclosed within.

Note: The UNDERGROUND STORAGE TANK SERVICES CERTIFICATION ACT, NJS.A. 58:10A-2A, requires all services performed on an UST system for the purpose of complying with PL-1986, c.102 to be performed by or under the immediate on-site supervision of a person certified by the Department for that service. The certified person providing that service must be employed by a buisness that is also certified by the Department for that service.

CONTACT PERSON:

TELEPHONE:

JANIS CROWDER

804-354-6409

EFFECTIVE DATE:

08/14/97

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

Joshua Gradwohl, SUPERVISOR
BUREAU OF FIELD OPERATIONS

Appendix C

Photographic Documentation



Photograph No.: 1 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 278S)

Photographer: B. Rayfield

Description: Building 278S prior to excavation activities.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/26/97 View: South.



Photograph No.: 2 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 278S)

Photographer: B. Rayfield

Description: Tank removed and staged for cleaning.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.



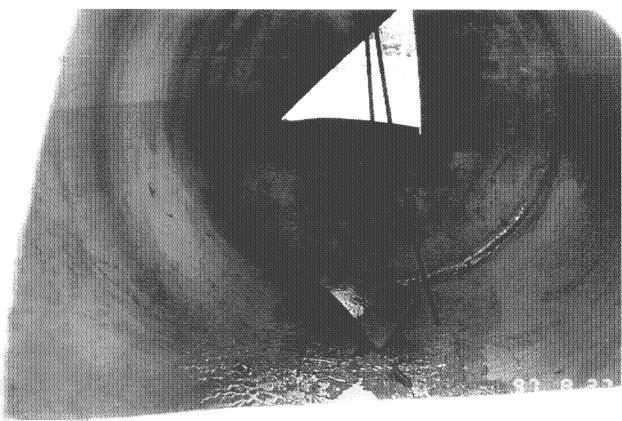
Photograph No.: 3 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 278S)

Photographer: B. Rayfield

Description: Tanks cleaned using pressure washer.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.



Photograph No.: 4 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2788) Photographer: B. Rayfield

Description: Cleaned UST with holes rendering it unusable.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.



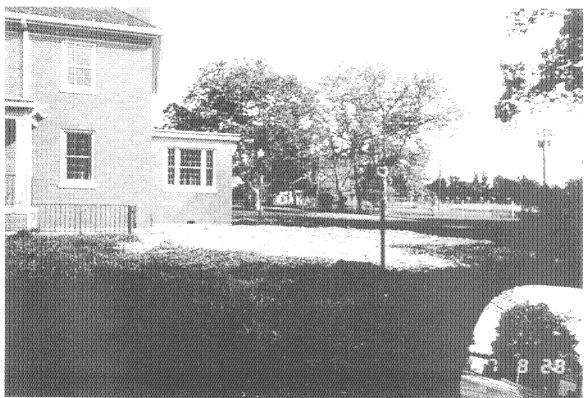
Photograph No.: 5 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2788)

Photographer: B. Rayfield

Description: Tank was loaded into rolloff box for disposal.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/27/97 View: Detail.



Photograph No.: 6 Contract No.: DACW31-95-D-0097 Location: Pedricktown U.S. Army Reserve Center (Bldg 2788)

Photographer: B. Rayfield

Description: Building 278S excavation backfilled and restored with seed and straw.

Earth Tech Job No. 21574

D.O. No.: 016 Date: 8/28/97

View: South.

Appendix D

Tank Disposal Certificate

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Environmental Technology Incorporated (14 Each Certification of Tank Disposal 77th)
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50-gallen Frenzian Excellent
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Transportation 7/4 3/4-
This is to cordify that the above described tank has been remined and will be crossported to the disposal size as applified above.
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Finanglass tank democished in roll-off box for ousposal ofter deaning intercor

Appendix E Liquid Disposal Manifest



NON-HAZARDOUS MANIFEST	1. Generator's US EPA IO No. MT Dには10回行じた	Document No.	2. Page 1 8013		
Generator's Name and Mailing Address Se Ro Ro Ro Ro Ro Ro Ro Ro Ro R	ivers-Sandberg Reser ure #130	ve Ctr.	A. Non-had NHZ02	<u>oo 74</u>	fest Document Nu
4. Generator's Phone (900) 759-7 5. Transporter 1 Company Name		EPA ID Number	B. State Ge		
Casie Ecology Oil Salvage 7. Transporter 2 Company Name	Enc. N 13 D 10 4	15 9 9 5 6 9 3 EPA ID Number		ne. 109 3 1 ter's Phone (1 12 16 15 15 609) 6:6-44
Designated Facility Name and Site Address		EPA ID Number	E State Tra	ns. ID	
Casis Ecology Oil Salvage. 8109 N. Mill Rd Cas			F Transport	s's Phone () F05
71. US DOT Description (Including Proper Ship		15 4 5 6 4 2 12. Cont	HL Facility's	Phone (5 2 9) = 4 ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±
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J Additional Descriptions for Materials Listed	Above		*(= ⊼5 - 5g (stes Listed Above
a. D.	c.		<u>a</u>	1 d.	
15. Special Handling Instructions and Additional	Information				
16. GENERATOR'S CERTIFICATION: I hereby diproper shipping name and are classified, pac according to applicable international and nat i hereby certify that the above-named material.	ked, marked, and labeled, and are in ional government regulations.	ignment are fully and accu all respects in proper con	rate scombe dutic to trans	d above by port by highw	
Printed/Typed Name	Signature	<u>, , , , , , , , , , , , , , , , , , , </u>			Month Day
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 Transporter 2 Acknowledgement of Receipt of Printed/Typed Name 	f Materials Signature				Month Day
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of recei		thu this manufact avecant as			

Appendix F

Laboratory Certificates and Chain-of-Custody

Ø1018/021

Industrial & Environmental Analysts, Inc. (IEA) Petroleum Hydrocarbons by IR

IEA Project #: 2070-038 IEA Sample #: 9708533-14 Client Name: Barth Tech

Matrix: Soil Date Received: 08/28/97 Date Sampled: 08/26/97

Client Proj. I.D.: 22818 Pedricktown Sample I.D.: PED-278S-SS01

	Qu	antitation		Date Date
Parameter	Method	Limits	Results	Prepared Analyzed Analyst
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TPH by IR	PPA 418.1	12 mg/Kg	BQL	09/09/9 7 09 /11/97 BW

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

IEA ADMIN

2019/021

Industrial & Environmental Analysts, Inc. (IEA) Petroleum Hydrocarbons by IR

IEA Project #: 2070-038
IEA Sample #: 9708533-15
Client Name: Barth Tech

Matrix: Soil
Date Received: 08/28/97
Date Sampled: 08/26/97

Client Proj. I.D.:22818 Pedricktown Sample I.D.: PED-2785-SS02

Parameter	Method	Quantitation Limits	Results	Date Date Prepared Analyzed Analyst
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TPH by IR	EPA 418.1	11 mg/K g	BQL	09/09/97 09/11/97 BW

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

Industrial & Environmental Analysts, Inc. (IEA) Petroleum Hydrocarbons by IR

IEA Project #: 2070-038 IEA Sample #: 9708533-16 Client Name: Earth Tech

Matrix: Soil Date Received: 08/28/97 Date Sampled: 08/26/97

Client Proj. I.D.:22818 Pedricktown Sample I.D.: PED-278S-SS03

	Qu	ancication		Date Date
Parameter	er Method L		Results	Prepared Analyzed Analyst
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TPH by IR	EPA 418.1	10 mg/Kg	BQL	09/09/97 09/11/97 BW

Comments:

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

Industrial & Environmental Analysts, Inc. (IEA) Petroleum Hydrocarbons by IR

IEA Project #:

2070-038

Matrix:

Soi1

IEA Sample #:

9708533-17

Date Received: 08/28/97 Date Sampled: 08/26/97

Client Name:

Earth Tech

Client Proj. I.D.: 22818 Pedricktown

Sample I.D.; PED-278S-SS04

	Qu	ancitation		Date	Dace
Paramecer	Method	Limits	Results	prepared	Analyzed Analyst

TPH by IR	EPA 418.1	ll mg/Kg	BQL	09/09/97	09/11/97 BW

TPH by IR = Petroleum Hydrocarbons by IR Quantitation limits and results have been adjusted for moisture correction factor BQL = Below Quantitation Limits

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15 Wiggins Ave., Bedford, MA 01730	•

relephone: (617) 275-3330 Fax: (617) 275-7478 **CHAIN OF CUSTODY RECORD**

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CHAIN OF CUSTODY RECORD

WORK	ORDER	#:	 -	 -

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		Fav.	(617)	275 74

NETHOD OF SHIPMENT

Telephone: (617) 275-3330 Fax: (617) 275-7478		DUE DATE :	
COMPANY: FARTH TECH ADDRESS: 2229 TONLYMST. RICHMOND, UA 13230 PHONE #: (804) 358-5858 FAX #: (804) 354-0300 P.O. #: MUSOI O L 5353 PROJECT MANAGER: JANIS CROWDER PROJECT ID/LOCATION: PEDVICKTOMIN 22818 TOXIKON SAMPLE SAMPLE CONTAINER SAMPLING	SAMPLE TYPE CONTAINER TYPE 1. WASTEWATER P - PLASTIC 2. SOIL G - GLASS 3. SLUDGE V - VOA 4. OIL 5. DRINKING WATER 6. WATER (GWMW/SW) 7. OTHER (SPECIFY	ANALYSES	SPECIAL
# IDENTIFICATION TYPE SIZE TYPE # DATE TIME	177	<u> </u>	COMMENTS
Fen-2785-5501 2 407 6 1 8/26/1520	4°C X		
RED 278 5 (BR)			
PED-2785-5502 2 407 1 8/26 1521			
PED-2785-SS03 72 407 1 1522	▗ ┼╌╾╌┶╌┈┈ ┈┈╸ ╂┈ ┦ ╶╌┦╌╌┈╌╂┈╼╌╂ ┈	IF-TIPH > 1000 ppm run:	N
PEO-2485-SUM 2 1602 V 1 V 1523	3 +°C X 10	8260 volatile man	ds-
PED-DC 3 Hilar 6 1 8/27/1440	X 24 (day 15 packs includ	ing
		xylones towart compar	nb :
		lint or priority coll	utant
· · · · · · · · · · · · · · · · · · ·		volatile organics with	•
		library warch per No	JDEP
		Ži	er 0-030
Set a Ray of TIME: MPRILL	BY FOR LAB BY. DATE: - FOR LAB BY. DATE: 8 -	PROUTINE Sample disposal informate Are there any other known or suscentially to the contaminants in these samples of the contaminants in the contaminant contaminants in the contaminants in the contaminants in the con	tion spected