

CLOSURE REPORT

**Waste Oil Tanks
Building 1820, Tank #07
Facility ID #: 9-089067**

Fort Stewart, Georgia

Prepared by

Fort Stewart Directorate of Public Works, Environmental Branch

June 1997

Fort Stewart, Georgia
Underground Storage Tank Removal and Closure Report

Table of Contents

<u>Item</u>	<u>Tab</u>
Georgia Closure Form	1
Site Maps	5
EPA Form 7530-1 & Field Assessment Methods	6
Laboratory Data Summary (Tank Removal and GW)	7
Manifests	9
Fort Stewart Area Map	10

Prepared by

Fort Stewart Directorate of Public Works, Environmental Branch

CLOSURE REPORT ADDENDUM

FACILITY ID. NO. 9-089067
UST #7

APRIL 9, 1998

NOTE: PLEASE INSERT THIS ADDENDUM INTO THE CLOSURE REPORT
SUBMITTED TO THE USTMP IN JULY 1997

Georgia Department of Natural Resources

Environmental Protection Division
Underground Storage Tank Management Program
4244 International Parkway, Suite 104, Atlanta, Georgia 30354
Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
(404)362-7687



CLOSURE REPORT FORM

Please complete the following form, include the listed items and check all of the boxes that apply. This form can be used as a Closure Report, provided documentation is attached when specified, to substantiate the information on this form, as outlined in the guidance document "So You Want to Close an UST?" (GUST-9). If one of the items does not apply to your tank closure, please provide a written explanation for the omission. If soil was excavated and disposed of, be sure to complete the applicable sections and attach the proper disposal documents.

1. Owner of UST System:

Name: Department of the Army
Phone Number: (912) 767-1234/2010
Company: U.S. ARMY
Address: HQ, 24th Infantry Division (Mechanized) & Ft Stewart
Fort Stewart GA 31314-5000
(city) (state) (zip code)

I hereby certify that the information contained in this Closure Report and in all the attachments is true, accurate, and complete, and the Closure Report satisfies all criteria and requirements of Rule 391-3-15-09 of the Georgia Rules for Underground Storage Tank Management.

Signature: _____ Date: _____

2. UST System Site Location:

Facility Name: FORT STEWART
Street Address: Bldg 1820, McFarland Avenue
Fort Stewart GA 31314-5000
(city) (state) (zip code)
Facility ID#: 9-089067

3. Contractor Certification:

I hereby certify that I have performed or supervised the work detailed in this report, and have examined and am familiar with the information submitted in this and all attached documents. The submitted information is, to the best of knowledge, true, accurate, complete, and in accordance with the Georgia Rules for Underground Storage Tank Management, revised February, 1995.

Name: Anderson Columbia Environmental, Inc.
Address: P.O. Box 1386
Lake City, Florida 32056-1386

Signature: 25704 Date: 3/27/96

4. Site-specific Hydrogeology:

Depth to Groundwater: 3.86 ft, if encountered (See TAB 6 for site specific data)

☐ Not Applicable

5. Site Map: Include the following items on an attached site map: (See TAB 5)

- Tank Pit Area
- Piping Trenches
- Dispensers
- Sewer Lines (if present)
- Water Lines
- Tanks with their ID#s, corresponding to the Notification Form 7530-1
- Sample Locations (with sample numbers and depths)
- Scale 1 in = 40 ft
- North Arrow

6. Tank Removal:

• Date of Removal: Jan 24, 1995

• Tank Information:

Tank #	Tank Size (gallons)	Tank Contents
07	1,000	Waste Oil

(This information should correspond to the 7530-1 Form.)

• Attach Amended Notification Form 7530-1

• Describe Soil Sampling Procedures (and groundwater, if encountered):
Sampling procedures for both tank removal activities and the
subsequent groundwater investigation are provided in TAB 6.

7. Laboratory Analytical Data: The following items must be included on attached copies of the data:

- Laboratory Method
- Date of Sampling
- Date of Analysis
- Detection Limits
- Signed Chain of Custody
- Quality Control Data

SEE TAB 7 for analytical data (Tank removal and Groundwater Investigation)

8. Regulated Substance Released: Check the applicable box(es).

☐ Gasoline ☐ Diesel ☐ Kerosene ☒ Used Oil ☐ Other _____

9. Excavation and Treatment/Disposal of Contaminated Soil:

- Attach Soil Disposal Manifests
- Volume of Soil Excavated (less than 6 ft from USTs and 4 ft from piping or dispenser islands)

_____ Tons OR _____ yd³

☒ Not Applicable

10. Local Water Resources: Attach documentation only if Table B Soil Threshold Values and/or In-Stream Water Quality Standards are proposed for soil disposal, or No Further Action Required status. Check the applicable box(es).

☐ Drinking water supplies are NOT located in:

High or average groundwater pollution susceptibility area:
Public water systems within 2.0 miles and
Non-public water systems within 0.5 mile

OR

Low groundwater pollution susceptibility area:
Public water systems within 1.0 mile and
Non-public water systems within 0.25 mile

* As defined by the Groundwater Pollution Susceptibility Map of Georgia.

☒ Streams, Lakes, and Ponds: Childpen's Pond
Distance to closest surface water body: mile(s) or 2200 feet

☐ Not Applicable

11. Conclusions or Recommendations: Choose one.

☒ Clean Closure, thus No Further Action is Required.

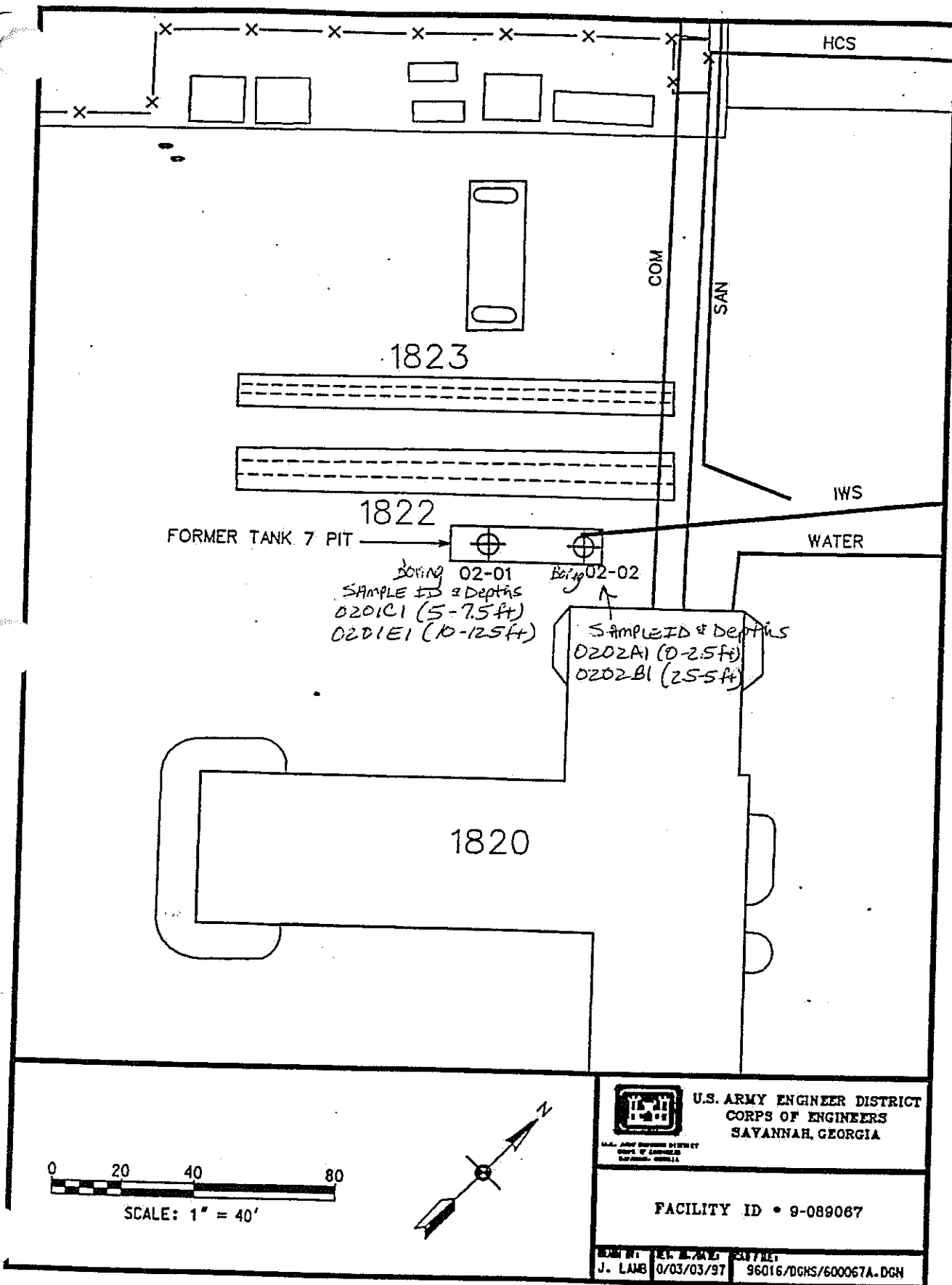
☐ Soil Excavated Within the Limits Specified in Question 7 (GUST-9) and Transported to an EPD Treatment/Disposal Facility, Thus No Further Action is Required.

CLOSURE REPORT ADDENDUM
UST #7, FACILITY ID. NO. 9-089067

SITE MAP
TAB 5

As requested, the site boring map (Map 1) previously submitted with the Closure Report has been revised annotating sample numbers and depths. At soil boring 02-02, two soil samples were collected: 0202A1 at a depth of 0-2.5 feet and 0202B1 at a depth of 2.5 to 5.0 feet. At soil boring 02-01, two soil borings were collected: 0201C1 at a depth of 5 to 7.5 feet and 0201E1 at a depth of 10 to 12.5 feet. Please replace Map 1 under Tab 5 of the Closure Report submitted in July 1997 with this revised map.

In addition, please replace Maps 2a and 2b which were previously submitted with the Closure Report that incorrectly identified the location of Tank #7.



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
SAVANNAH, GEORGIA

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
SAVANNAH, GEORGIA

FACILITY ID • 9-089067

DATE: 01/03/03/97 96016/DGHS/600067A.DGN

Map 1 (rev. 4/98)

Headspace Analysis

Instrument: FID Serial #: 7731
 Source: Tank Pit Temp.: 70s

Sample	Depth	FID	Methane	VOA
1	2'	3500		
2	4'	1400	1200	
3	7'	3300		
4	7'	900	2000	
5	5'	2500	1200	
6	6'	1800		

Prepared for:



US Army Corps
of Engineers
Savannah District

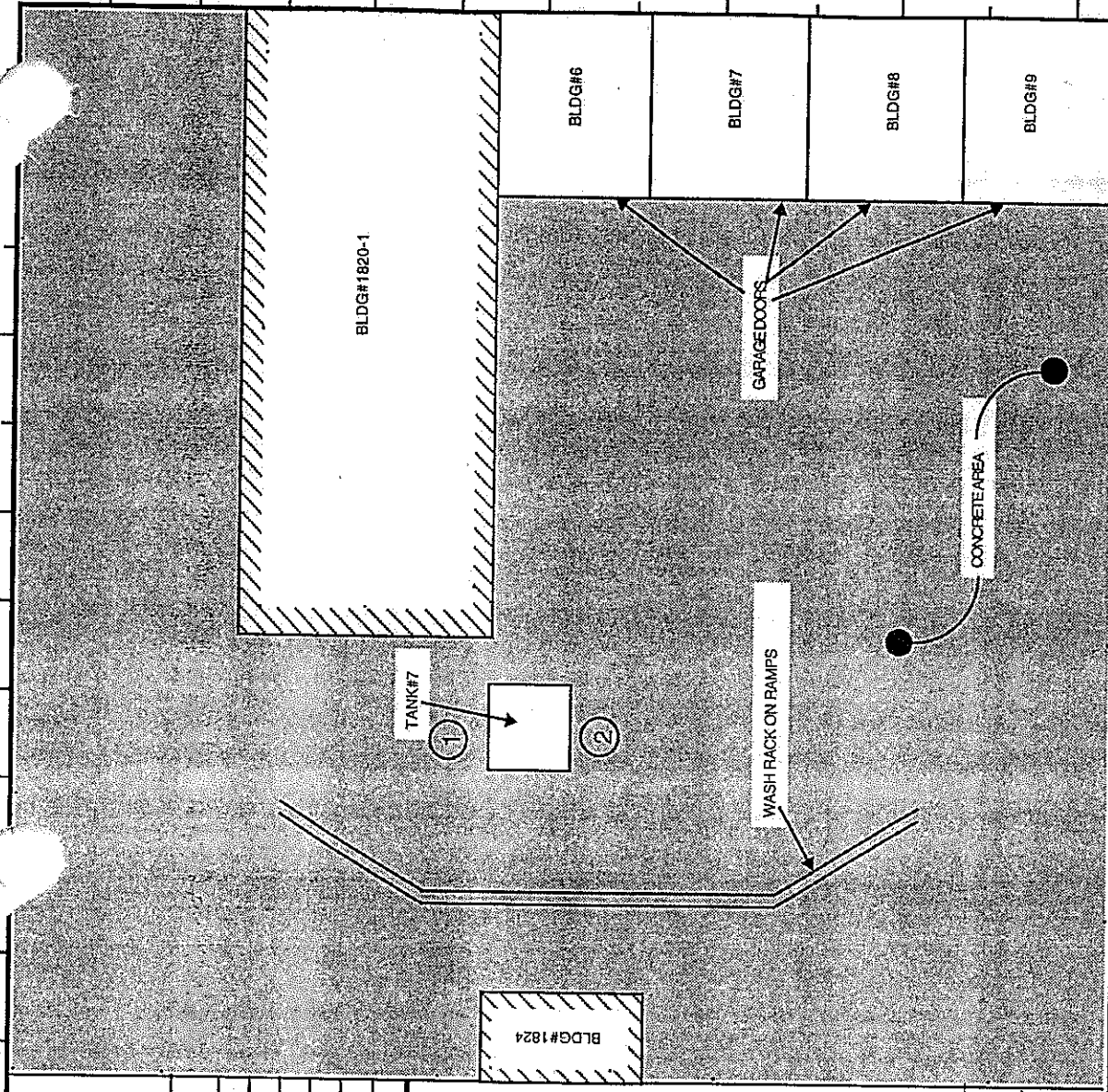
Results of Soil Analysis

Sample ID	TPH (mg/kg)	BTEX (ug/kg)
1	34.2	215.1
2	28.1	143.5

LEGEND/REF. DRWG'S

BLDG#1820-A
TANK#7-5,000 GALLON U.S.T.

② Soil sampling locality



ANDERSON COLUMBIA

ENVIRONMENTAL, INC.
P.O. BOX 1386 LAKE CITY, FLORIDA 32056 (904) 755-1196

DR. WCG CHD SRC DR. APP.

ENGR. ENGRG DEPT.

DATE 5/05/95 SCALE N/A

Site Map

Fort Stewart, Hinesville, GA
Building 1820-1, Tank #7

DRAWING NO.: **FIGURE 1**

*Amended
4-98*

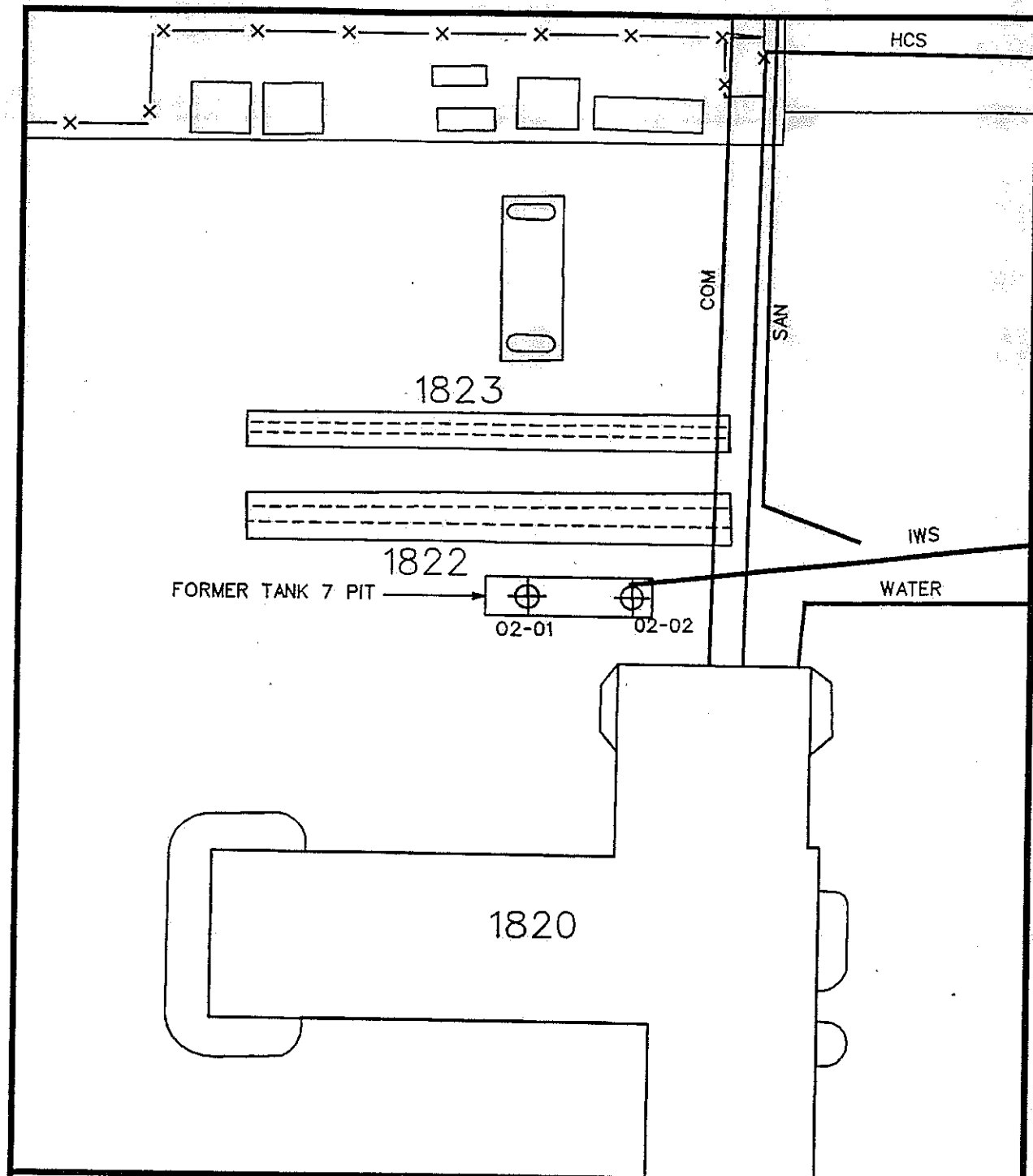
INFORMATION ON MAPS

MAPS #1: Provided to Installation by SAIC after groundwater investigation

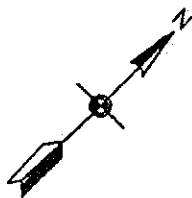
MAPS #2a-2b: Copied from Installation archives to show exact location of USTs in relation to one another and to show how systems were installed

MAPS #3: Provided to Installation by ACE after removal of USTS (Not to scale)

NOTE: This UST was for waste oil storage and did NOT have dispensers, only a waste oil draw-off (see Map 2b).



0 20 40 80
SCALE: 1" = 40'



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
SAVANNAH, GEORGIA

FACILITY ID • 9-089087

DESIGNED BY: J. LAMB	REV. DATE: 0/03/03/97	REVISION: 96016/DCNS/600067A.DGN
-------------------------	--------------------------	-------------------------------------

CLOSURE REPORT ADDENDUM
UST #7, FACILITY ID. NO. 9-089067

TANK REMOVAL
(CLOSURE OF PIPING)
TAB 6

The undersigned certifies that the piping associated with former Tank #7, located at Building 1820, Fort Stewart, Georgia, was purged and cleaned by our contractor, Anderson Columbia Environmental, prior to abandoning the piping in-place. In-place closure consisted of placing an absorbent sock in the pipe and then grouting the ends (i.e., the end at the tank and the end in the motorpool bay).

The undersigned also certifies that the piping at this facility was associated with Tank #7, which was used for storage of waste oil. The piping was not greater than 25', and in accordance with GUST Rules, sampling is not required.

Name: Dale F. Kiefer

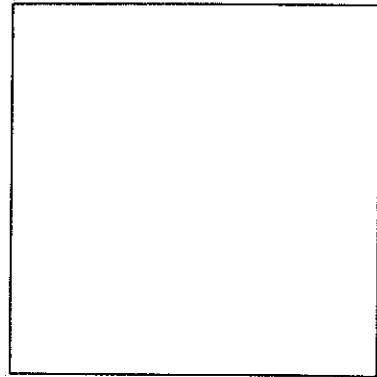
Title: Chief, Environmental
Natural Resources Division

Signature: Dale F. Kiefer Date: 9 April 98

STATE OF GEORGIA
NOTIFICATION DATA FOR UNDERGROUND STORAGE TANK

state use only

Part I: Facility Data



FACILITY ID NUMBER: 9-089067

OWNER'S ID: 197

INITIAL DATE RECEIVED: 05-06-1986

DATE AMENDED LAST:

NOTIFICATION TYPE: ☐ New ☒ Amended ☒ Closure

OWNERSHIP OF TANK(S):

NUMBER OF TANK(S): 4

Name : US ARMY/FT STEWART
Mailing Address: HQ 24TH INF DIV (M), AFZP-DEV/BLDG 1139
City : FT STEWART State : GA Zip Code: 31314-5000
Phone: (912) 767-1071 County: LIBERTY

LOCATION OF TANK(S):

Name : FT STEWART/FAC 1820
Street Address: FAC 1820
City : FT STEWART State : GA Zip Code : 31314-5000
County: LIBERTY Latitude: : Longitude: :
Phone : () -

OWNER TYPE: ☒ Federal ☐ State ☐ Local ☐ Commercial ☐ Private

FACILITY TYPE(S):

☐ Gas Station	☐ Local Government	☐ Contractor
☐ Petroleum Dist	☐ State Government	☐ Truck/Transport
☐ Air Taxi (Airport)	☐ Fed Non-Military	☐ Utilities
☐ Aircraft Owner	☒ Fed Military	☐ Farm
☐ Auto Dealership	☐ Commercial	☐ Residential
☐ Railroad	☐ Industrial	☐ Other
☐ Hospital	☐ Educational	

CONTACT PERSON IN CHARGE OF TANK(S):

Name : US ARMY/FT STEWART Title: JOHN SPEAR/ENV ENG
Address: HQ 24TH INF DIV (M), AFZP-DEV/BLDG 1139
City : FT STEWART State: GA Zip Code: 31314-5000
Phone : (912) 767-1071

**STATE OF GEORGIA
NOTIFICATION DATA FOR UNDERGROUND STORAGE TANK**

Part II: Tank Data

FACILITY ID	9-089067	9-089067	9-089067	9-089067
TANK ID	10	7	8	9
Status of Tank				
Currently In Use	X		X	X
Temp. Out of Use				
Perm. Out of Use		X		
Date of Installation	01-01-1980	01-01-1980	01-01-1982	01-01-1982
Age	15	15	13	13
Est. Total Capacity	500	1000 500	4,000	4,000
Material of Construction				
Asphalt or Bare Steel	X	X		
Cath. Protected Steel				
Epoxy Coated Steel				
Composite				
Fiberglass Reinf. Plas.				
Lined Interior				
Double Walled				
Poly. Tank Jacket				
Concrete			X	X
Excavation Liner				
Unknown				
Other, explanation				
Date Tank Repaired				
Piping Material				
Carbon Steel				
Galvanized Steel	X	X	X	X
Fiberglass				
Copper				
Cathodically Protected				
Double Walled				
Secondary Containment				
Unknown				
Other, explanation				
Date Piping Installed				
Piping Type				
Suction: No Valve				
Suction: Valve				
Pressure				
Gravity Fed				
Date Piping Repaired				
Substance Stored in Tank				
Gasoline				
Diesel				
Gasohol				
Kerosene				
Heating Oil	X			
Used Oil		X		
Propane				
Other				
Other, explanation			OIL/WATER SEP	OIL/WATER SEP

TANKS 8 & 9 ARE PART OF DISTRIBUTION SYSTEM AND ALL FLOW THROUGH TANKS.

TANK 10 STORES HEATING OIL FOR THE USE OF THE ST. STEWART, WASH.

STATE OF GEORGIA
NOTIFICATION DATA FOR UNDERGROUND STORAGE TANK

Part II: Tank Data

FACILITY ID	9-089067	9-089067	9-089067	9-089067
TANK ID	10	7	8	9
Substance Stored in Tank				
Hazardous Substance				
CERCLA Name				
CAS Number				
Mixture				
Mixture, Specification				
Out of Use/Change Service				
Tank	Piping	Tank	Piping	Tank Piping
Est. Date Last Used		08-94		
Est. Date Closed				
Removed from Ground		01-24-95		
Closed in Ground				
Filled with Inert Mat.				
Change in Service				
Site Assessment Compl.				
Leak Detected				
Installation				
Certified by Mfg				
Certified by Imple Agn.				
Inspected by Engineer				
Checklists Completed				
Other Allowed Method				
Method Description				
Release Detection	Tank	Piping	Tank	Piping
Tank Tightness Testing				
Inventory Controls				
SIR				
Automatic Tank Gauging				
Inter. Mon./Double Wall				
Groundwater Monitoring				
Manual Tank Gauging				
Vapor Monitoring				
Inter. Mon./Sec. Cont.				
Auto. Line Leak Detect.				
Line Tightness Testing				
Other Method				
Other Description				
Spill and Overfill				
Date Overfill Device				
Date Spill Device				
Installer Certification				
Name				
Position				
Company				
Date				

STATE OF GEORGIA
NOTIFICATION DATA FOR UNDERGROUND STORAGE TANK

Part III: Certifications

OATH OF

INSTALLATION: I certify the information concerning installation of the UST system, release detection, and spill/overflow protection specified in Part II-Tank Data is true to the best of my belief and knowledge.

Installer:

Company

Company Address

Authorized Representative

Signature

Date

Title

Telephone Number (include Area Code)

CERTIFICATION: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Owner:

JOHN H. SPEARS

Chief, Environmental Branch

Owner Name

Title

Owner's Signature

Date

TAB 6
FIELD ASSESSMENT METHODS (Groundwater Investigation)

The groundwater investigation at the site included the following activities:

1. Drill two soil boreholes located within the former tank pit down to the local water table using a hollow-stem auger rig. In cases where two USTs are present at a site, drill one soil borehole near the center of each former tank pit.
2. Continuously collect soil samples from 2.5 foot intervals during borehole drilling and perform field headspace gas analysis on each sample to determine organic vapor concentration.
3. Select soil samples for laboratory analysis according to the criteria noted below for each borehole drilled. Chemical parameters for soil samples submitted for laboratory analysis included BTEX, PAH, and TPH.

In boreholes where organic vapors were detected, collect one soil sample from the 2.5-foot interval where the highest vapor concentration was encountered, and the other from the 2.5-foot interval located immediately above or at the water table.

In boreholes where no organic vapors were detected, collect no soil samples for chemical analysis.

4. Upon reaching the water table, collect one groundwater sample from each borehole using a Hydropunch II or similar sampling device. Chemical parameters for groundwater samples submitted for laboratory analysis included BTEX and PAH.

**GROUNDWATER DEPTH MEASUREMENTS AND CALCULATED
GROUNDWATER ELEVATIONS**

Tank	Borehole	Water Level Depth	Ground Surface Elevation	Water Level Elevation
07	02-01	6.42 feet BGS	69.20 feet MLS	62.78 feet MLS
	02-02	3.86 feet BGS	69.18 feet MLS	65.32 feet MLS

TAB 6

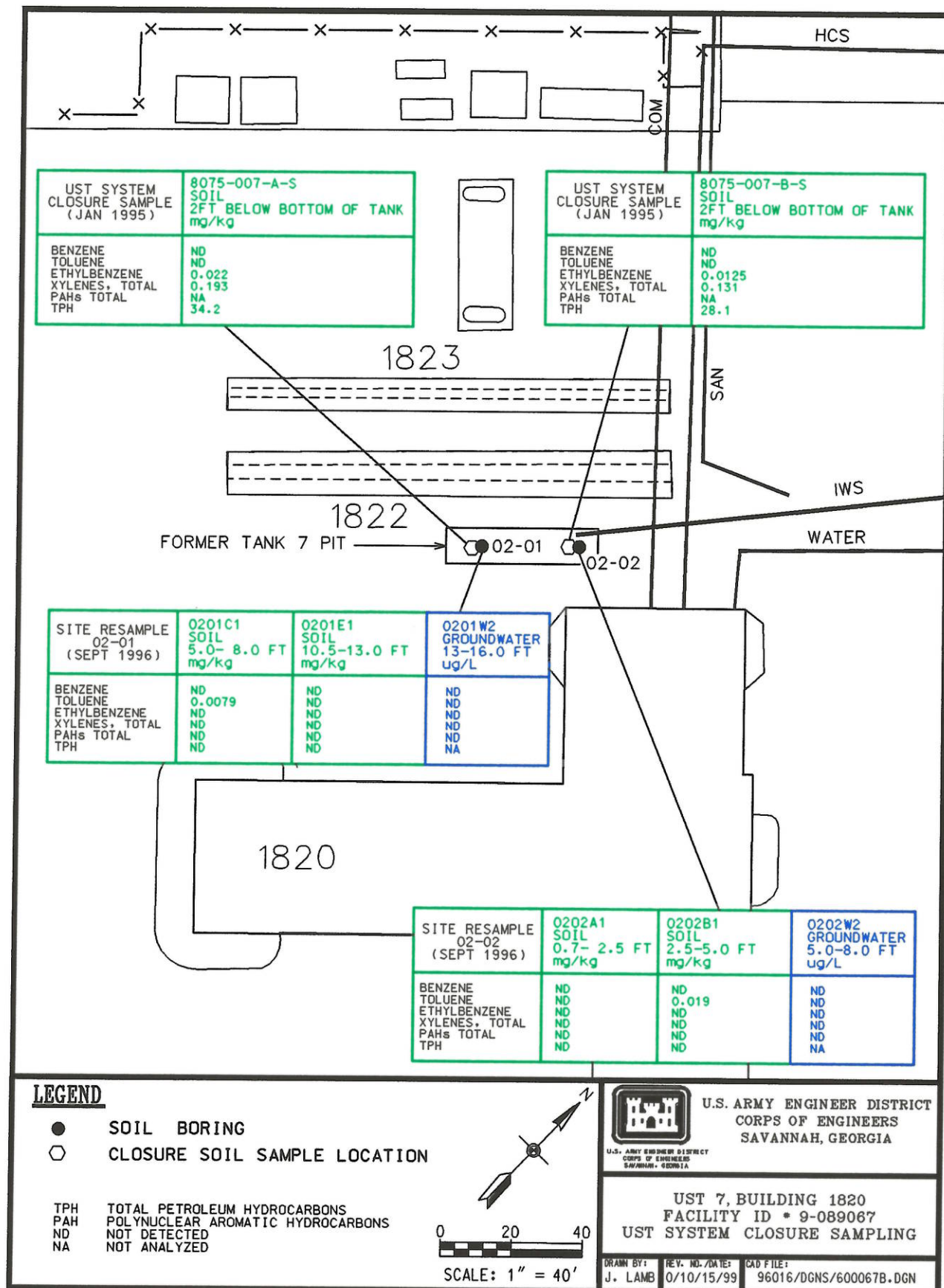
FIELD ASSESSMENT METHODS (Tank Removal)

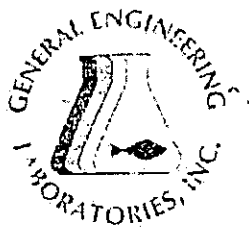
SOIL SAMPLES

Soil samples for analytical testing were collected by Anderson Columbia Environmental, Inc. (ACE) personnel two (2) feet below both ends of the former tank pit. Soil samples were collected into precleaned, labeled laboratory sample bottles and immediately placed on ice. The samples were shipped under Chain of Custody to the Corps of Engineers contract laboratory, James H. Carr & Associates, Inc., Environmental Services, located in Columbia, South Carolina.

Soil samples for field screening were collected by ACE personnel from each side of the excavation and from the bottom of the excavated tank pit. Soil samples were collected at various intervals and soil vapors were withdrawn for volatile organic compounds (VOCs) with a Heath PORTA-FID II, Model No. 8000 Flame Ionization Detector (FID) fitted with a membrane filter. Calibration was performed prior to field sampling with a 100 ppm methane/air mixture.

FID readings of soil samples were collected by filling a clean glass jar one-half full with soil, capping the jar with clean aluminum foil and allowing conditions to equilibrate for approximately 15 minutes. The tip of the FID was then carefully inserted through the aluminum foil and an air sample from the jar's headspace was analyzed for total VOCs.





GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

STATEMENT ON LABORATORY DETECTION LIMITS

General Engineering has been performing chemical analysis on soil and groundwater samples for SAIC managed Ft. Stewart, GA, UST CAP Part-A and CAP Part-B Investigations for the past two years.

In the course of these studies GEL has employed appropriate EPA SW-846 protocols according to Methods 8020 for BTEX compounds, 8270 for PAH compounds, and modified 8015 for TPH-GRO and TPH-DRO components.

In performance of these methods the laboratory has consistently maintained analyte reporting levels of:

<u>Analyte</u>	<u>Soil</u> <u>ug/Kg</u>	<u>Water</u> <u>ug/L</u>
Benzene	5	5
Toluene	5	5
Ethylbenzene	5	5
Xylenes	10	10
PAHs	330	10
	<u>mg/Kg</u>	<u>mg/L</u>
TPH-GRO	5	0.1
TPH-DRO	4	0.1
TPH	10	0.2

Analytical method detection levels (MDLs) have been maintained at the following levels:

<u>Analyte</u>	<u>Soil</u> <u>ug/Kg</u>	<u>Water</u> <u>ug/L</u>
Benzene	2	2
Toluene	2	2
Ethylbenzene	2	2
Xylenes	4	4
PAHs	70	2
	<u>mg/Kg</u>	<u>mg/L</u>
TPH-GRO	2	0.05
TPH-DRO	2	0.05
TPH	4	0.1

When an analyte was observed between the laboratory MDL and the reporting level, an estimated ("J") value was reported. If an analyte is not determined above the MDL, the laboratory will report the reporting level as a "U" (undetected). The above reporting levels and MDLs are applicable for all values reported for these analyses. For example, when a Benzene concentration of 500 ug/Kg is reported the associated reporting level is 5 ug/Kg and the associated MDL is 2 ug/Kg.

Soil data has been reported on a dry weight basis. This introduces a correction factor based on the moisture content found in each sample for both positive values and for the reporting level and MDL. For example, when a soil sample's reporting level is corrected for its percent moisture (say 10% moisture), the dry weight reporting level for benzene becomes 5.5 ug/gm and the MDL becomes 2.2 ug/gm. Therefore soil reporting levels will vary based on the moisture.

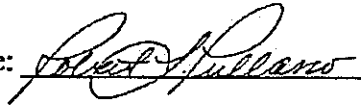
These reporting protocols follow current EPA direction.

GEL attempted in every sample analysis to achieve the requirements of GUST for soil and groundwater analyses. However, in some cases, it was not possible to achieve standard MDLs and reporting levels for each individual analyte. When a single analyte is found in the sample at high concentrations (example: xylenes at 5,000 ug/Kg), the sample must be diluted to properly quantify the level of that analyte. Dilution of the sample for one analyte will dilute the sample for all other analytes, raising the reporting levels for those analytes by the multiple of the dilution factor (example: a dilution of 1:10 will raise reporting levels of benzene to 50 ug/Kg). At other times concentrations of undetermined contaminants will require samples to be diluted, causing reporting levels and MDLs to become elevated.

The data produced for these Ft. Stewart UST Investigations was determined using approved EPA methodology by qualified analytical chemists. It has been reviewed by the laboratory and is considered technically sound and defensible.

Name: Robert L. Pullano

Title: Quality Systems Manager

Signature: 

Date: 1 April 98

Investigation: 02							
Station	02-01	02-02	02-02	02-02	02-02	02-02	02-02
Sample ID	0201C1	0201E1	0202A1	0202A1	0202A1	0202B1	0202B1
Date Collected	9/6/96	9/6/96	9/6/96	9/6/96	9/6/96	9/6/96	9/6/96
Depth	5.0 - 8.0 FT	10.5 - 13.0 FT	0.7 - 2.5 FT	0.7 - 2.5 FT	0.7 - 2.5 FT	2.5 - 5.0 FT	2.5 - 5.0 FT
GDNR Level							
Polynuclear Aromatic Hydrocarbons	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
2-Chloronaphthalene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Acenaphthene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Acenaphthylene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Anthracene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(a)anthracene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(b)pyrene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(k)fluoranthene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(g,h,i)perylene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(k)fluoranthene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Chrysene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Dibenzo(a,h)anthracene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Fluoranthene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Fluorene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Indeno(1,2,3-cd)pyrene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Naphthalene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Phenanthrene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
Pyrene	NA	0.372 U	0.436 U	0.436 U	0.349 U	0.407 U	0.407 U
GDNR Level							
Petroleum Hydrocarbons	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Total Petroleum Hydrocarbons	NRC	11.7 U	10 U	10 U	10 U	11.3 U	11.3 U
GDNR Level							
Volatile Organics	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Benzene	0.008	0.0056 U	0.0066 U	0.0066 U	0.0053 U	0.0062 U	0.0062 U
Ethylbenzene	10	0.0056 U	0.0066 U	0.0066 U	0.0053 U	0.0062 U	0.0062 U
Toluene	6	0.0079 =	0.0066 U	0.0066 U	0.0053 U	0.019 =	0.019 =
Xylenes, Total	700	0.0056 U	0.0066 U	0.0066 U	0.0053 U	0.0062 U	0.0062 U

NRC - No Regulatory Criteria

NA - Not Applicable, the health based threshold level would be exceeded only if free product conditions existed

U - Indicates the compound was not detected at the concentration reported.

J - Indicates that the value for the compound is an estimated value.

UI - Indicates the compound was not detected at the reported concentration and the concentration was estimated.

= - Indicates the compound was detected at the concentration reported.

Soil Analytical Results for the Facility ID #9-089067, UST 7, Site Investigation



COC NO.: G0017

[illegible]

Chain says 3904 W3 bottle says
3904 W2 used what was on bottle.

1D
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0201C1

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: 69089S

Matrix: (soil/water) SOIL

Lab Sample ID: 9609089-08

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: B2Z334

% Moisture: 11 decanted: (Y/N) N

Date Received: 09/08/96

Extraction: (SepF/Cont/Sonc) PURGETRAP

Date Extracted: N/A

Concentrated Extract Volume: 10 (ml)

Date Analyzed: 09/12/96

Injection Volume: (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

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

Q

71-43-2-----Benzene	5.6	U
108-88-3-----Toluene	7.9	U
100-41-4-----Ethylbenzene	5.6	U
1330-20-7-----Xylenes (total)	5.6	U

u
u
u
u

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name:

Contract:

0201C1

Lab Code:

Case No.:

SAS No.:

SDG No.: 69089S

Matrix: (soil/water) SOIL

Lab Sample ID: 9609089-08

Sample wt/vol: 30.2 (g/mL) g

Lab File ID: 2L306

Level: (low/med) LOW

Date Received: 09/08/96

% Moisture: 11 decanted: (Y/N) N

Date Extracted: 09/11/96

Concentrated Extract Volume: 1 (mL)

Date Analyzed: 09/18/96

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	-----naphthalene	372 U	u ↓
91-58-7	-----2-chloronaphthalene	372 U	
209-96-8	-----acenaphthylene	372 U	
83-32-9	-----acenaphthene	372 U	
86-73-7	-----fluorene	372 U	
85-01-8	-----phenanthrene	372 U	
120-12-7	-----anthracene	372 U	
206-44-0	-----fluoranthene	372 U	
129-00-0	-----pyrene	372 U	
56-55-3	-----benzo (a) anthracene	372 U	
218-01-9	-----chrysene	372 U	
205-99-2	-----benzo (b) fluoranthene	372 U	
207-08-9	-----benzo (k) fluoranthene	372 U	
50-32-8	-----benzo (a) pyrene	372 U	
193-39-5	-----indeno (1,2,3-cd) pyrene	372 U	
53-70-3	-----dibenz (a,h) anthracene	372 U	
191-24-2	-----benzo (g,h,i) perylene	372 U	

DATA VALIDATION
COPY

Client: Science Applications International Corporation
P.O. Box 2502
800 Oak Ridge Turnpike
Oak Ridge, Tennessee 37831

Date: 10/10/96

Contact: Mr. Chris Potter
ProjectDescription: Ft. Stewart UST Sites

Client Code: SAIC00396

Project Manager: Linda Darrington

Page: 1

Sample I.D.: 0201C1
Lab I.D.: 9609089-08
Sample Matrix: Soil
Date Collected: 09/07/96
Date Received: 09/08/96
Priority: Routine
Collected by: Client

Parameter

Analyte:

Total Rec. Petro.Hydrocarbons
Evaporative Loss

Qualifier	Result	Units	Method	Analyst	DateTime
B	11.7 11	U mg/kg %	EPA 418.1 Mod.	EAN	09/09/961100

DATA VALIDATION
COPY

1D
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA

Case No.: NA

SAS No.: NA

SDG No.: 69088S

0201E1

Matrix: (soil/water) SOIL

Sample wt/vol: 5.0 (g/mL) g

Lab Sample ID: 9609088-03

% Moisture: 24 decanted: (Y/N) N

Lab File ID: B2Z310

Extraction: (SepF/Cont/Sonc) PURGETRAP

Date Received: 09/08/96

Concentrated Extract Volume: 10 (ml)

Date Extracted: N/A

Injection Volume: (uL)

Date Analyzed: 09/11/96

GPC Cleanup: (Y/N) N

pH: 7.0

Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

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

Q

71-43-2-----Benzene	6.6	U
108-88-3-----Toluene	6.6	U
100-41-4-----Ethylbenzene	6.6	U
1330-20-7-----Xylenes (total)	6.6	U

DATA VALIDATION
COPY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name:

Contract:

0201E1

Lab Code:

Case No.:

SAS No.:

SDG No.: 69088S

Matrix: (soil/water) SOIL

Lab Sample ID: 9609088-03

Sample wt/vol: 30.2 (g/mL) g

Lab File ID: 1L310

Level: (low/med) LOW

Date Received: 09/08/96

% Moisture: 24 decanted: (Y/N) N

Date Extracted: 09/11/96

Concentrated Extract Volume: 1 (mL)

Date Analyzed: 09/18/96

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	-----naphthalene	436	U
91-58-7	-----2-chloronaphthalene	436	U
209-96-8	-----acenaphthylene	436	U
83-32-9	-----acenaphthene	436	U
86-73-7	-----fluorene	436	U
85-01-8	-----phenanthrene	436	U
120-12-7	-----anthracene	436	U
206-44-0	-----fluoranthene	436	U
129-00-0	-----pyrene	436	U
56-55-3	-----benzo (a) anthracene	436	U
218-01-9	-----chrysene	436	U
205-99-2	-----benzo (b) fluoranthene	436	U
207-08-9	-----benzo (k) fluoranthene	436	U
50-32-8	-----benzo (a) pyrene	436	U
193-39-5	-----indeno (1,2,3-cd) pyrene	436	U
53-70-3	-----dibenz (a,h) anthracene	436	U
191-24-2	-----benzo (g,h,i) perylene	436	U

DATA VALIDATION
COPY

Client: Science Applications International Corporation
P.O. Box 2502
800 Oak Ridge Turnpike
Oak Ridge, Tennessee 37831

Date: 10/10/96

Contact: Mr. Chris Potter
Project Description: Ft. Stewart UST Sites

Client Code: SAIC00396

Project Manager: Linda Darrington

Page: 1

Sample I.D.: 0201E1
Lab I.D.: 9609088-03
Sample Matrix: Soil
Date Collected: 09/06/96
Date Received: 09/08/96
Priority: Routine
Collected by: Client

Parameter

Analyte:

Total Rec. Petro.Hydrocarbons
Evaporative Loss

Qualifier	Result	Units	Method	Analyst	DateTime
JB	7.33 24	mg/kg %	EPA 418.1 Mod.	EAN	09/09/961100

10 u Fφ1, Fφ6

DATA VALIDATION
COPY

158

1D
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA

Case No.: NA

SAS No.: NA

SDG No.: 69088S

0202A1

Matrix: (soil/water) SOIL

Lab Sample ID: 9609088-04

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: B2Z311

% Moisture: 6 decanted: (Y/N) N

Date Received: 09/08/96

Extraction: (SepF/Cont/Sonc) PURGETRAP

Date Extracted: N/A

Concentrated Extract Volume: 10 (ml)

Date Analyzed: 09/11/96

Injection Volume: _____ (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

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

Q

71-43-2-----Benzene	5.3	U
108-88-3-----Toluene	5.3	U
100-41-4-----Ethylbenzene	5.3	U
1330-20-7-----Xylenes (total)	5.3	U

DATA VALIDATION
COPY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: _____ Contract: _____
 Lab Code: _____ Case No.: _____ SAS No.: _____
 Matrix: (soil/water) SOIL SDG No.: 690885
 Sample wt/vol: 30.5 (g/mL) g Lab Sample ID: 9609088-04
 Level: (low/med) LOW Lab File ID: 1L311
 % Moisture: 6 decanted: (Y/N) N Date Received: 09/08/96
 Concentrated Extract Volume: 1 (mL) Date Extracted: 09/11/96
 Injection Volume: 1.0 (uL) Date Analyzed: 09/18/96
 GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg		Q
91-20-3	naphthalene			
91-58-7	2-chloronaphthalene	349	U	
209-96-8	acenaphthylene	349	U	
83-32-9	acenaphthene	349	U	
86-73-7	fluorene	349	U	
85-01-8	phenanthrene	349	U	
120-12-7	anthracene	349	U	
206-44-0	fluoranthene	349	U	
129-00-0	pyrene	349	U	
56-55-3	benzo (a) anthracene	349	U	
218-01-9	chrysene	349	U	
205-99-2	benzo (b) fluoranthene	349	U	
207-08-9	benzo (k) fluoranthene	349	U	
50-32-8	benzo (a) pyrene	349	U	
193-39-5	indeno (1,2,3-cd) pyrene	349	U	
53-70-3	dibenz (a,h) anthracene	349	U	
191-24-2	benzo (g,h,i) perylene	349	U	

DATA VALIDATION
COPY

Client: Science Applications International Corporation
P.O. Box 2502
800 Oak Ridge Turnpike
Oak Ridge, Tennessee 37831

Date: 10/10/96

Contact: Mr. Chris Potter
Project Description: Ft. Stewart UST Sites

Client Code: SAIC00396

Project Manager: Linda Darrington

Page: 1

Sample ID.: 0202A1
Lab ID.: 9609088-04
Sample Matrix: Soil
Date Collected: 09/06/96
Date Received: 09/08/96
Priority: Routine
Collected by: Client

Parameter

Analyte:

Total Rec. Petro.Hydrocarbons
Evaporative Loss

Qualifier

Result

Units

Method

Analyst

DateTime

JB

~~7.4~~
6mg/kg EPA 418.1 Mod.
%

EAN

09/09/961100

10 u F41, F46

DATA VALIDATION
COPY

159

1D
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA

Case No.: NA

SAS No.: NA

SDG No.: 69088S

0202B1

Matrix: (soil/water) SOIL

Sample wt/vol: 5.0 (g/mL) g

Lab Sample ID: 9609088-13

% Moisture: 19 decanted: (Y/N) N

Lab File ID: B2Z320

Extraction: (SepF/Cont/Sonc) PURGETRAP

Date Received: 09/08/96

Concentrated Extract Volume: 10 (ml)

Date Extracted: N/A

Injection Volume: (uL)

Date Analyzed: 09/11/96

GPC Cleanup: (Y/N) N

pH: 7.0

Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

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

Q

71-43-2-----Benzene	6.2	U	U = U U
108-88-3-----Toluene	19		
100-41-4-----Ethylbenzene	6.2	U	
1330-20-7-----Xylenes (total)	6.2	U	

DATA VALIDATION
COPY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: _____ Contract: _____
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 69088S
 Matrix: (soil/water) SOIL Lab Sample ID: 9609088-13
 Sample wt/vol: 30.4 (g/mL) g Lab File ID: 1L320
 Level: (low/med) LOW Date Received: 09/08/96
 % Moisture: 19 decanted: (Y/N) N Date Extracted: 09/11/96
 Concentrated Extract Volume: 1 (mL) Date Analyzed: 09/19/96
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg		Q
91-20-3	naphthalene	407	U	U ↓
91-58-7	2-chloronaphthalene	407	U	
209-96-8	acenaphthylene	407	U	
83-32-9	acenaphthene	407	U	
86-73-7	fluorene	407	U	
85-01-8	phenanthrene	407	U	
120-12-7	anthracene	407	U	
206-44-0	fluoranthene	407	U	
129-00-0	pyrene	407	U	
56-55-3	benzo(a)anthracene	407	U	
218-01-9	chrysene	407	U	
205-99-2	benzo(b)fluoranthene	407	U	
207-08-9	benzo(k)fluoranthene	407	U	
50-32-8	benzo(a)pyrene	407	U	
193-39-5	indeno(1,2,3-cd)pyrene	407	U	
53-70-3	dibenz(a,h)anthracene	407	U	
191-24-2	benzo(g,h,i)perylene	407	U	

DATA VALIDATION
COPY

FORM I SV-1

3/90

85

Client: Science Applications International Corporation
P.O. Box 2502
800 Oak Ridge Turnpike
Oak Ridge, Tennessee 37831

Date: 10/10/96

Contact: Mr. Chris Potter
Project Description: Ft. Stewart UST Sites

Client Code: SAIC00396

Project Manager: Linda Darrington

Page: 1

Sample I.D.: 0202B1
Lab I.D.: 9609088-13
Sample Matrix: Soil
Date Collected: 09/06/96
Date Received: 09/08/96
Priority: Routine
Collected by: Client

Analyte:

Total Rec. Petro. Hydrocarbons
Evaporative Loss

Qualifier	Result	Units	Method	Analyst	DateTime
JB	11.3 U 19	mg/kg %	EPA 418.1 Mod.	EAN	09/09/96 1100

MRP
11/7/96

DATA VALIDATION
COPY

-168

Investigation: 02		Station	02-01	02-02	
		Sample ID	0201W2	0202W2	
		Date Collected	9/6/96	9/6/96	
		Depth	13.0 - 16.0 FT	5.0 - 8.0 FT	
EPA MCL					
Polynuclear Aromatic Hydrocarbons		UG/L	UG/L	UG/L	
2-Chloronaphthalene		NA	10 U	10 U	
Acenaphthene		NA	10 U	10 U	
Acenaphthylene		NA	10 U	10 U	
Anthracene		NA	10 U	10 U	
Benzo(a)anthracene		NA	10 U	10 U	
Benzo(a)pyrene		0.2	10 U	10 U	
Benzo(b)fluoranthene		NRC	10 U	10 U	
Benzo(g,h,i)perylene		NA	10 U	10 U	
Benzo(k)fluoranthene		NRC	10 U	10 U	
Chrysene		NRC	10 U	10 U	
Dibenzo(a,h)anthracene		NRC	10 U	10 U	
Fluoranthene		NA	10 U	10 U	
Fluorene		NA	10 U	10 U	
Indeno(1,2,3-cd)pyrene		NRC	10 U	10 U	
Naphthalene		NRC	10 U	10 U	
Phenanthrene		NA	10 U	10 U	
Pyrene		NA	10 U	10 U	
EPA MCL					
Volatile Organics		UG/L	UG/L	UG/L	
Benzene		5	5 U	5 U	
Ethylbenzene		700	5 U	5 U	
Toluene		1000	5 U	5 U	
Xylenes, Total		10000	5 U	5 U	

NRC - No Regulatory Criteria

NA - Not Applicable, the health based threshold level would be exceeded only if free product conditions existed

U - Indicates the compound was not detected at the concentration reported.

J - Indicates that the value for the compound is an estimated value.

UJ - Indicates the compound was not detected at the reported concentration and the concentration was estimated.

= - Indicates the compound was detected at the concentration reported.

COC NO.: G000

CHAIN OF CUSTODY RECORD

PROJECT NAME: Fort Stewart UST Sites				REQUESTED PARAMETERS										LABORATORY NAME:	
PROJECT NUMBER: 0003														GEL	
PROJECT MANAGER: Chris Potter														LABORATORY ADDRESS:	
Sample (Signature)														2040 Savage Road	
Sample (Printed Name)														Charleston, SC 29417	
Sample ID	Date Collected	Time Collected	Matrix	PAH, Lead, DRO	MTX	PAH	Lead	DRO	No. of Batches/Vials		OVA	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS			
TB00008	9/6/96	0759	WATER												
1601W2	9/6/96	1500													
0102W2	9/6/96	1020													
1506W4	9/6/96	1340													
1502W2	9/6/96	1535													
0202W2	9/6/96	1335													
1602W2	9/6/96	1638													
0106A1	9/6/96														
1501W2	9/6/96	1135													
0201W2	9/6/96	1550													
1602W2	9/6/96	1550													
3504W2	9/6/96	945													
RECEIVED BY: <i>SK-1512</i>				RECEIVED BY:				TOTAL NUMBER OF CONTAINERS: 04				Cooler Temperature: 56			
COMPANY NAME: SARC				COMPANY NAME:				Cooler ID: #237							
RECEIVED BY: <i>Raymond E Reed</i>				RECEIVED BY:				Date/Time							
COMPANY NAME: GEL				COMPANY NAME:				Date/Time							
RECEIVED BY: <i>Raymond E Reed</i>				RECEIVED BY:				Date/Time							
COMPANY NAME: GEL				COMPANY NAME:				Date/Time							
RECEIVED BY: <i>Raymond E Reed</i>				RECEIVED BY:				Date/Time							
COMPANY NAME: GEL				COMPANY NAME:				Date/Time							

sample water only, not product

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0201W2

Lab Name: GENERAL ENGINEERING LABOR Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69092W

Matrix: (soil/water) WATER Lab Sample ID: 9609092-10

Sample wt/vol: 20 (g/ml) ml Lab File ID: 1Z317

Level: (low/med) LOW Date Received: 09/08/96

% Moisture: not dec. Date Analyzed: 09/11/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.

COMPOUND

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

Q

71-43-2-----	benzene	5.0	U
108-88-3-----	toluene	5.0	U
100-41-4-----	ethylbenzene	5.0	U
1330-20-7-----	xylene (total)	5.0	U

FORM I VOA

OLM03.0

DATA VALIDATION
COPY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0201W2

Name: GENERAL ENGINEERING LABOR Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69090W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9609090-06
 Sample wt/vol: 500 (g/mL) mL Lab File ID: 2K216
 Level: (low/med) LOW Date Received: 09/08/96
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 09/09/96
 Concentrated Extract Volume: 0.5 (mL) Date Analyzed: 09/10/96
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L Q

91-20-3-----	naphthalene	10.0	U
91-58-7-----	2-chloronaphthalene	10.0	U
209-96-8-----	acenaphthylene	10.0	U
83-32-9-----	acenaphthene	10.0	U
86-73-7-----	fluorene	10.0	U
85-01-8-----	phenanthrene	10.0	U
120-12-7-----	anthracene	10.0	U
206-44-0-----	fluoranthene	10.0	U
129-00-0-----	pyrene	10.0	U
56-55-3-----	benzo (a) anthracene	10.0	U
218-01-9-----	chrysene	10.0	U
205-99-2-----	benzo (b) fluoranthene	10.0	U
207-08-9-----	benzo (k) fluoranthene	10.0	U
50-32-8-----	benzo (a) pyrene	10.0	U
193-39-5-----	indeno (1,2,3-cd) pyrene	10.0	U
53-70-3-----	dibenz (a,h) anthracene	10.0	U
191-24-2-----	benzo (g,h,i) perylene	10.0	U

DATA VALIDATION
COPY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0202W2

Lab Name: GENERAL ENGINEERING LABOR Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69092W

Matrix: (soil/water) WATER Lab Sample ID: 9609092-06

Sample wt/vol: 20 (g/ml) ml Lab File ID: 12314

Level: (low/med) LOW Date Received: 09/08/96

% Moisture: not dec. Date Analyzed: 09/11/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.

COMPOUND

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

Q

71-43-2-----	benzene	5.0	U
108-88-3-----	toluene	5.0	U
100-41-4-----	ethylbenzene	5.0	U
1330-20-7-----	xlenes (total)	5.0	U

FORM I VOA

OLM03.0

DATA VALIDATION
COPY

45

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0202W2

Name: GENERAL ENGINEERING LABOR Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69090W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9609090-05
 Sample wt/vol: 500 (g/mL) mL Lab File ID: 2K215
 Level: (low/med) LOW Date Received: 09/08/96
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 09/09/96
 Concentrated Extract Volume: 0.5 (mL) Date Analyzed: 09/10/96
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L Q

91-20-3-----	naphthalene	10.0	U
91-58-7-----	2-chloronaphthalene	10.0	U
209-96-8-----	acenaphthylene	10.0	U
83-32-9-----	acenaphthene	10.0	U
86-73-7-----	fluorene	10.0	U
85-01-8-----	phenanthrene	10.0	U
120-12-7-----	anthracene	10.0	U
206-44-0-----	fluoranthene	10.0	U
129-00-0-----	pyrene	10.0	U
56-55-3-----	benzo (a) anthracene	10.0	U
218-01-9-----	chrysene	10.0	U
205-99-2-----	benzo (b) fluoranthene	10.0	U
207-08-9-----	benzo (k) fluoranthene	10.0	U
50-32-8-----	benzo (a) pyrene	10.0	U
193-39-5-----	indeno (1,2,3-cd) pyrene	10.0	U
53-70-3-----	dibenz (a,h) anthracene	10.0	U
191-24-2-----	benzo (g,h,i) perylene	10.0	U

DATA VALIDATION
COPY

**UST #7, BUILDING 1820, FACILITY ID. NO. 9-025067
SUMMARY OF SOIL ANALYTICAL DATA OBTAINED DURING UST CLOSURE SAMPLING (JANUARY 1996)**

Station: Sample Number:	Screening Level	8075-007-A-S 4641 2 ft below bottom of tank Soil Grab 1/24/95 (µg/kg)	8075-007-B-S 4642 2 ft below bottom of tank Soil Grab 1/24/95 (µg/kg)
	GA UST		
Sample Depth:			
Media:			
Sample Type:	Soil		
Collection Date:	Threshold		
Units:	Levels		
	(µg/kg)		
Benzene	8	ND	ND
Toluene	600	ND	ND
Ethylbenzene	10,000	22	12.5
Xylenes, Total	700,000	193	131
TPH-Diesel Range Organics (mg/kg)	-	34.2	28.1

10

Bold values indicate results exceeding Georgia UST action levels.

Note: PAHs were not analyzed on the soil samples. In addition, the soil samples were received by the laboratory at an elevated temperature and with no chain of custody seal.

Therefore, the site was resampled in September 1996, at sampling locations approximately the same as the closure sample stations.

AMES H. CARR & ASSOCIATES, INC.

Environmental Services

919 True Street ■ P.O. Box 90209 ■ Columbia, SC 29290
(803) 776-7789 ■ (800) 435-3995 ■ FAX (803) 783-2192

FINAL REPORT OF ANALYSES

ANDERSON COLUMBIA ENVIRON., INC
P.O. Box 1386
Lake City, FL 32056
Attn: Mr. Mike McRae

REPORT DATE: 02/08/95
PROJECT NAME- Ft. Stewart 1/30

SAMPLE ID- 8075-007-A-S UST#7

SAMPLE NUMBER- 4641
SAMPLE MATRIX- SOIL

DATE SAMPLED- 01/24/95
TIME SAMPLED- 1400
DATE RECEIVED- 01/30/95

TIME RECEIVED- 1000
DELIVERED BY- Greyhound
RECEIVED BY- RM
SAMPLER- Diane Howell

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
SOLIDS	87.2 %	0.01		01/31/95		
PET. HYDROCARBONS-OIL	34.2 mg/Kg	11.5	02/06/95	02/07/95	9071	
VOLATILE ORGANIC COMPOUNDS				01/30/95	8020	
BENZENE	<1.15 ug/Kg	1.15				
TOLUENE	<1.15 ug/Kg	1.15				
CHLOROBENZENE	<1.15 ug/Kg	1.15				
M,P-XYLENES	183. ug/Kg	2.29				
O-XYLENES	10.3 ug/Kg	1.15				
ETHYL BENZENE	21.8 ug/Kg	1.15				
1,2-DICHLOROBENZENE	<1.15 ug/Kg	1.15				
1,3-DICHLOROBENZENE	<1.15 ug/Kg	1.15				
1,4-DICHLOROBENZENE	<1.15 ug/Kg	1.15				
SURROGATE BROMOFLUOROBENZENE	85 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	94 % Recovery					

SAMPLE ID- 8075-007-B-S UST#7

SAMPLE NUMBER- 4642
SAMPLE MATRIX- SOIL

DATE SAMPLED- 01/24/95
TIME SAMPLED- 1355
DATE RECEIVED- 01/30/95

TIME RECEIVED- 1000
DELIVERED BY- Greyhound
RECEIVED BY- RM
SAMPLER- Diane Howell

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
SOLIDS	87.9 %	0.01		01/31/95		
PET. HYDROCARBONS-OIL	28.1 mg/Kg	11.4	02/06/95	02/07/95	9071	
VOLATILE ORGANIC COMPOUNDS				01/30/95	8020	

CONTINUATION OF DATA FOR SAMPLE NUMBER 4642

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
BENZENE	<1.14 ug/Kg	1.14				
TOLUENE	<1.14 ug/Kg	1.14				
CHLOROBENZENE	<1.14 ug/Kg	1.14				
M,P-XYLENES	.131 ug/Kg	2.28				
O-XYLENES	<1.14 ug/Kg	1.14				
ETHYL BENZENE	12.5 ug/Kg	1.14				
1,2-DICHLOROBENZENE	<1.14 ug/Kg	1.14				
1,3-DICHLOROBENZENE	<1.14 ug/Kg	1.14				
1,4-DICHLOROBENZENE	<1.14 ug/Kg	1.14				
SURROGATE BROMOFLUOROBENZENE	79 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	89 % Recovery					

SAMPLE ID- 8075-94-A-A-S

TIME RECEIVED- 1000

SAMPLE NUMBER- 4643

DATE SAMPLED- 01/25/95

DELIVERED BY- Greyhound

SAMPLE MATRIX- SOIL

TIME SAMPLED- 1145

RECEIVED BY- RM

DATE RECEIVED- 01/30/95

SAMPLER- Diane Howell

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	88.7 %	0.01		01/31/95		
TOT. PET. HYDROCARBONS-OIL	9080 mg/Kg	11.3	02/06/95	02/07/95	9071	
VOLATILE ORGANIC COMPOUNDS				01/31/95	8020	
BENZENE	496. ug/Kg	113				100
TOLUENE	4800 ug/Kg	113				100
CHLOROBENZENE	<113 ug/Kg	113				100
M,P-XYLENES	13900 ug/Kg	225.				200
O-XYLENES	5610 ug/Kg	113				100
ETHYL BENZENE	2650 ug/Kg	113				100
1,2-DICHLOROBENZENE	496. ug/Kg	113				100
1,3-DICHLOROBENZENE	<113 ug/Kg	113				100
1,4-DICHLOROBENZENE	<113 ug/Kg	113				100
SURROGATE BROMOFLUOROBENZENE	109 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	114 % Recovery					

SAMPLE ID- 8075-94-A-B-S

TIME RECEIVED- 1000

SAMPLE NUMBER- 4644

DATE SAMPLED- 01/25/95

DELIVERED BY- Greyhound

SAMPLE MATRIX- SOIL

TIME SAMPLED- 1150

RECEIVED BY- RM

DATE RECEIVED- 01/30/95

SAMPLER- Diane Howell

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	87.3 %	0.01		01/31/95		
TOT. PET. HYDROCARBONS-OIL	4720 mg/Kg	11.4	02/06/95	02/07/95	9071	
VOLATILE ORGANIC COMPOUNDS				01/31/95	8020	
BENZENE	281 ug/Kg	114.				100
TOLUENE	2550 ug/Kg	114.				100
CHLOROBENZENE	<114. ug/Kg	114.				100
M,P-XYLENES	8040 ug/Kg	229.				200
O-XYLENES	4780 ug/Kg	114.				100
ETHYL BENZENE	1040 ug/Kg	114.				100
1,2-DICHLOROBENZENE	488 ug/Kg	114.				100
1,3-DICHLOROBENZENE	384 ug/Kg	114.				100
-DICHLOROBENZENE	590 ug/Kg	114.				100
ROGATE BROMOFLUOROBENZENE	115 % Recovery					
OGATE aaa-TRIFLUOROTOLUENE	100 % Recovery					

SCDHEC Laboratory ID 40111

LABORATORY DIRECTOR

James H. Carr

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 02/08/95

QA/QC for SAMPLE Nos: 4641, 4642, 4643, 4644,

pg 1

Analysis	Precision Data				Accuracy Data				Ref. Sample Data				Analy. Batch Number		
	Blank Conc.	Sample Number	Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.		Found Conc.	Rec. %
XZENE 20 /Kg	< 1	4642	MS	0.0	11.7	200.00	MS	<1.0	20.0	0.0	-2.5				5306, 5306, 5306,
	< 1	4642					MSD	<1.0	20.0	11.7	56.0				5359, , 5306,
			BS	16.3	15.9	2.48	BS	0	20.0	16.3	81.5				, 5306, 5306,
			BS	17.9	18.3	2.21	BSD	0	20.0	15.9	79.5				, 5359, 5306,
							BS	0	20.0	17.9	89.5				, 5359,
							BSD	0	20.0	18.3	91.5				, , 5359,
LUENE 20 /Kg	< 1	4642	MS	0.0	11.3	200.00	MS	<1.0	20.0	0.0	-2.5				5306, 5306, 5306,
	< 1	4642					MSD	<1.0	20.0	11.3	54.0				5359, , 5306,
			BS	16.3	16.1	1.23	BS	0	20.0	16.3	81.5				, 5306, 5306,
			BS	18.4	18.4	0.00	BSD	0	20.0	16.1	80.5				, 5359, 5306,
							BS	0	20.0	18.4	92.0				, 5359,
							BSD	0	20.0	18.4	92.0				, , 5359,
OROBENZENE 20 /Kg	< 1	4642	MS	0.0	10.9	200.00	MS	<1.0	20.0	0.0	-2.5				5306, 5306, 5306,
	< 1	4642					MSD	<1.0	20.0	10.9	52.0				5359, , 5306,
			BS	17.4	16.4	5.92	BS	0	20.0	17.4	87.0				, 5306, 5306,
			BS	18.6	18.9	1.60	BSD	0	20.0	16.4	82.0				, 5359, 5306,
							BS	0	20.0	18.6	93.0				, 5359,
							BSD	0	20.0	18.9	94.5				, , 5359,

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 02/08/95

QA/QC for SAMPLE Nos: 4641, 4642, 4643, 4644,

Page 2

analysis	Precision Data				Accuracy Data				Ref. Sample Data				Analy. Batch Number		
	Blank Conc.	Sample Type	Rep A	Rep B	RPD %	Samp Type	Raw Samp Conc.	Spk Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.		Found Conc.	Rec. %
P-XYLENES 020 g/Kg	< 2	4642 MS	0.0	29.1	200.00 MS		57.6	40.0	0.0	-144.0					5306, 5306, 5306,
	< 2	4642				HSD	57.6	40.0	86.7	72.8					5359, , 5306,
		BS	33.5	32.1	4.27 BS		0	40.0	33.5	83.8					5306, 5306,
		BS	40.5	38.7	4.55 BSD		0	40.0	32.1	80.3					5359, 5306,
					BS		0	40.0	40.5	101.3					5359, 5306,
					BSD		0	40.0	38.7	96.8					5359, , 5359,
P-XYLENES 020 g/Kg	< 1	4642 MS	0.0	16.1	200.00 MS		<1.0	20.0	0.0	-2.5					5306, 5306, 5306,
	< 1	4642				HSD	<1.0	20.0	16.1	78.0					5359, , 5306,
		BS	18.3	18.0	1.65 BS		0	20.0	18.3	91.5					5306, 5306,
		BS	19.3	19.1	1.04 BSD		0	20.0	18.0	90.0					5359, 5306,
					BS		0	20.0	19.3	96.5					5359, 5306,
					BSD		0	20.0	19.1	95.5					5359, , 5359,
HYL BENZENE 20 g/Kg	< 1	4642 MS	0.0	11.7	200.00 MS		5.3	20.0	0.0	-26.5					5306, 5306, 5306,
	< 1	4642				HSD	5.3	20.0	17.0	58.5					5359, , 5306,
		BS	16.6	15.7	5.57 BS		0	20.0	16.6	83.0					5306, 5306,
		BS	20.5	19.7	3.98 BSD		0	20.0	15.7	78.5					5359, 5306,
					BS		0	20.0	20.5	102.5					5359, 5306,
					BSD		0	20.0	19.7	98.5					5359, , 5359,

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 02/08/95

QA/QC for SAMPLE Nos: 4641, 4642, 4643, 4644,
Page 3

Analysis	Precision Data				Accuracy Data				Ref. Sample Data				Analy. Batch Number	
	Blank Conc.	Sample Type	Rep A	Rep B	RPD %	Samp Raw Spk Add Conc.	Type Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.	Found Conc.		Rec. %
1,2-DICHLOROBENZEN 020 g/Kg	< 1	4642 MS	0.0	10.4	200.00 MS	<1.0		20.0	0.0	-2.5				5306, 5306, 5306,
	< 1	4642			MSD	<1.0		20.0	10.4	49.5				5306, 5306, 5306,
		BS	20.1	19.5	3.03 BS	0		20.0	20.1	100.5				5359, 5306,
		BS	21.6	22.5	4.08 BSD	0		20.0	19.5	97.5				5306, 5306,
3-DICHLOROBENZEN 020 g/Kg	< 1	4642 MS	0.0	10.3	200.00 MS	<1.0		20.0	0.0	-2.5				5359, 5306,
	< 1	4642			MSD	<1.0		20.0	10.3	49.0				5306, 5306, 5306,
		BS	20.1	19.4	3.54 BS	0		20.0	20.1	100.5				5359, 5306,
		BS	22.0	22.5	2.25 BSD	0		20.0	19.4	97.0				5306, 5306,
4-DICHLOROBENZEN 020 g/Kg	< 1	4642 MS	0.0	10.9	200.00 MS	<1.0		20.0	22.0	110.0				5359, 5306,
	< 1	4642			MSD	<1.0		20.0	22.5	112.5				5359, 5306,
		BS	20.1	19.4	3.54 BS	0		20.0	20.1	100.5				5306, 5306, 5306,
		BS	22.4	22.9	2.21 BSD	0		20.0	19.7	98.5				5359, 5306,
1,2-DICHLOROBENZEN 020 g/Kg	< 1	4642 MS	0.0	10.9	200.00 MS	<1.0		20.0	0.0	-2.5				5306, 5306, 5306,
	< 1	4642			MSD	<1.0		20.0	10.9	52.0				5359, 5306,
		BS	20.3	19.7	3.00 BS	0		20.0	20.3	101.5				5306, 5306,
		BS	22.4	22.9	2.21 BSD	0		20.0	19.7	98.5				5306, 5306,
1,2-DICHLOROBENZEN 020 g/Kg	< 1	4642 MS	0.0	10.9	200.00 MS	<1.0		20.0	22.4	112.0				5359, 5306,
	< 1	4642			MSD	<1.0		20.0	22.9	114.5				5359, 5306,
		BS	20.3	19.7	3.00 BS	0		20.0	20.3	101.5				5306, 5306,
		BS	22.4	22.9	2.21 BSD	0		20.0	19.7	98.5				5306, 5306,

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 02/08/95

QA/QC for SAMPLE Nos: 4641, 4642, 4643, 4644,

Page 4

Analysis	Precision Data				Accuracy Data				Ref. Sample Data				Analy. Batch Number		
	Blank Conc.	Sample Number	Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.		Found Conc.	Rec. %
URROGATE	4642	4642				MS	0	30.0	0.0	0.0					5306,
IRONOFLUOROBENZENE	4642	4642				MSD	0	30.0	16.7	55.7					5306,
1020						B	0	30.0	26.3	87.7					5306,
Recovery						BS	0	30.0	27.6	92.0					5306,
						BSD	0	30.0	26.6	88.7					5306,
						B	0	30.0	31.3	104.3					5306,
						BS	0	30.0	30.3	101.0					5359,
						BSD	0	30.0	30.8	102.7					5359,
URROGATE and-TRIF	4642	4642				MS	0	30.0	0.0	0.0					5306,
URROTOLUENE	4642	4642				MSD	0	30.0	17.8	59.3					5306,
020						B	0	30.0	28.2	94.0					5306,
Recovery						BS	0	30.0	26.8	89.3					5306,
						BSD	0	30.0	25.8	86.0					5306,
						B	0	30.0	33.7	112.3					5306,
						BS	0	30.0	30.3	101.0					5359,
						BSD	0	30.0	29.5	98.3					5359,

CHAIN OF CUSTODY RECORD

Page__of__

[illegible]

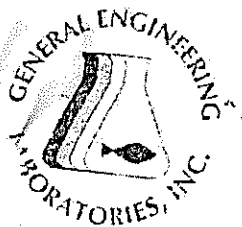
CLOSURE REPORT ADDENDUM
UST #7, FACILITY ID. NO. 9-089067

LABORATORY ANALYTICAL DATA
TAB 7

For clarification, please include in the Closure Report submitted in July 1997 (Tab 7) the written explanation from the laboratory, General Engineering Laboratory, concerning the exceedence of the detection limits for BTEX in the soil samples.

Replaced
Tab 7

10/28/99



GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

STATEMENT ON LABORATORY DETECTION LIMITS

General Engineering has been performing chemical analysis on soil and groundwater samples for SAIC managed Ft. Stewart, GA, UST CAP Part-A and CAP Part-B Investigations for the past two years.

In the course of these studies GEL has employed appropriate EPA SW-846 protocols according to Methods 8020 for BTEX compounds, 8270 for PAH compounds, and modified 8015 for TPH-GRO and TPH-DRO components.

In performance of these methods the laboratory has consistently maintained analyte reporting levels of:

Analyte	Soil <u>ug/Kg</u>	Water <u>ug/L</u>
Benzene	5	5
Toluene	5	5
Ethylbenzene	5	5
Xylenes	10	10
PAHs	330	10
TPH-GRO	<u>mg/Kg</u>	<u>mg/L</u>
TPH-DRO	5	0.1
TPH	4	0.1
	10	0.2

Analytical method detection levels (MDLs) have been maintained at the following levels:

Analyte	Soil <u>ug/Kg</u>	Water <u>ug/L</u>
Benzene	2	2
Toluene	2	2
Ethylbenzene	2	2
Xylenes	4	4
PAHs	70	2
TPH-GRO	<u>mg/Kg</u>	<u>mg/L</u>
TPH-DRO	2	0.05
TPH	2	0.05
	4	0.1

When an analyte was observed between the laboratory MDL and the reporting level, an estimated ("J") value was reported. If an analyte is not determined above the MDL, the laboratory will report the reporting level as a "U" (undetected). The above reporting levels and MDLs are applicable for all values reported for these analyses. For example, when a Benzene concentration of 500 ug/Kg is reported the associated reporting level is 5 ug/Kg and the associated MDL is 2 ug/Kg.

Soil data has been reported on a dry weight basis. This introduces a correction factor based on the moisture content found in each sample for both positive values and for the reporting level and MDL. For example, when a soil sample's reporting level is corrected for its percent moisture (say 10% moisture), the dry weight reporting level for benzene becomes 5.5 ug/gm and the MDL becomes 2.2 ug/gm. Therefore soil reporting levels will vary based on the moisture.

These reporting protocols follow current EPA direction.

GEL attempted in every sample analysis to achieve the requirements of GUST for soil and groundwater analyses. However, in some cases, it was not possible to achieve standard MDLs and reporting levels for each individual analyte. When a single analyte is found in the sample at high concentrations (example: xylenes at 5,000 ug/Kg), the sample must be diluted to properly quantify the level of that analyte. Dilution of the sample for one analyte will dilute the sample for all other analytes, raising the reporting levels for those analytes by the multiple of the dilution factor (example: a dilution of 1:10 will raise reporting levels of benzene to 50 ug/Kg). At other times concentrations of undetermined contaminants will require samples to be diluted, causing reporting levels and MDLs to become elevated.

The data produced for these Ft. Stewart UST Investigations was determined using approved EPA methodology by qualified analytical chemists. It has been reviewed by the laboratory and is considered technically sound and defensible.

Name: Robert L. Pullano

Title: Quality Systems Manager

Signature: Robert L. Pullano

Date: 1 April 98

LABORATORY ANALYTICAL RESULTS

Analytical results for UST #07 with the corresponding data validation and chain of custody is provided for your use and convenience. The analytical results from the groundwater investigation (Fall 1996) is followed by the analytical results from the UST removal (Spring 1995). All contaminants detected above their respective detection limits have been highlighted.

NOTE: Map #1, included in Tab 5, indicate sampling locations for the groundwater investigation. Map #3, also included in Tab 5, indicate sampling locations from the tank removal.

Investigation: 02		Station	02-01	02-01	02-02	02-02
		Sample ID	0201C1	0201E1	0202A1	0202B1
		Date Collected	9/6/96	9/6/96	9/6/96	9/6/96
		Depth	5.0 - 8.0 FT	10.5 - 13.0 FT	0.7 - 2.5 FT	2.5 - 5.0 FT
Polynuclear Aromatic Hydrocarbons		GDNR Level	MG/KG	MG/KG	MG/KG	MG/KG
2-Chloronaphthalene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Acenaphthene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Acenaphthylene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Anthracene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(a)anthracene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(a)pyrene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(b)fluoranthene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(g,h,i)perylene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Benzo(k)fluoranthene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Chrysene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Dibenzo(a,h)anthracene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Fluoranthene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Fluorene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Indeno(1,2,3-cd)pyrene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Naphthalene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Phenanthrene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Pyrene	NA	0.372 U	0.436 U	0.349 U	0.407 U	0.407 U
Petroleum Hydrocarbons		GDNR Level	MG/KG	MG/KG	MG/KG	MG/KG
Total Petroleum Hydrocarbons	NRC	11.7 U	10 U	10 U	11.3 U	
Volatile Organics		GDNR Level	MG/KG	MG/KG	MG/KG	MG/KG
Benzene	0.008	0.0056 U	0.0066 U	0.0053 U	0.0062 U	0.0062 U
Ethylbenzene	10	0.0056 U	0.0066 U	0.0053 U	0.0062 U	0.0062 U
Toluene	6	0.0079 =	0.0066 U	0.0053 U	0.019 =	
Xylenes, Total	700	0.0056 U	0.0066 U	0.0053 U	0.0062 U	

NRC - No Regulatory Criteria

NA - Not Applicable, the health based threshold level would be exceeded only if free product conditions existed

U - Indicates the compound was not detected at the concentration reported.

J - Indicates that the value for the compound is an estimated value.

UJ - Indicates the compound was not detected at the reported concentration and the concentration was estimated.

= - Indicates the compound was detected at the concentration reported

Soil Analytical Results for the Facility ID #9-089067, UST 7, Site Investigation

Investigation: 02		Station	02-01	02-02
		Sample ID	0201W2	0202W2
		Date Collected	9/6/96	9/6/96
		Depth	13.0 - 16.0 FT	5.0 - 8.0 FT
		EPA MCL	UG/L	UG/L
Polynuclear Aromatic Hydrocarbons		UG/L	10 U	10 U
2-Chloronaphthalene		NA	10 U	10 U
Acenaphthene		NA	10 U	10 U
Acenaphthylene		NA	10 U	10 U
Anthracene		NA	10 U	10 U
Benzo(a)anthracene		NA	10 U	10 U
Benzo(a)pyrene		0.2	10 U	10 U
Benzo(b)fluoranthene		NRC	10 U	10 U
Benzo(g,h,i)perylene		NA	10 U	10 U
Benzo(k)fluoranthene		NRC	10 U	10 U
Chrysene		NRC	10 U	10 U
Dibenzo(a,h)anthracene		NRC	10 U	10 U
Fluoranthene		NA	10 U	10 U
Fluorene		NA	10 U	10 U
Indeno(1,2,3-cd)pyrene		NRC	10 U	10 U
Naphthalene		NA	10 U	10 U
Phenanthrene		NA	10 U	10 U
Pyrene		NA	10 U	10 U
		EPA MCL	UG/L	UG/L
Volatile Organics		UG/L	5 U	5 U
Benzene		5	5 U	5 U
Ethylbenzene		700	5 U	5 U
Toluene		1000	5 U	5 U
Xylenes, Total		10000	5 U	5 U

NRC - No Regulatory Criteria

NA - Not Applicable, the health based threshold level would be exceeded only if free product conditions existed

U - Indicates the compound was not detected at the concentration reported.

J - Indicates that the value for the compound is an estimated value.

UJ - Indicates the compound was not detected at the reported concentration and the concentration was estimated.

= - Indicates the compound was detected at the concentration reported.

Groundwater Analytical Results for the
Facility ID #9-089067, UST 7, Site Investigation



800 Oak Ridge 1, Oak Ridge, TN 37831 (423) 487-4900

Page 2 of 4

CHAIN OF CUSTODY RECORD

COC NO.: G004

PROJECT NAME: Fort Stewart UST Sites				REQUESTED PARAMETERS										LABORATORY NAME: GEL	
PROJECT NUMBER: 0003														LABORATORY ADDRESS: 2040 Savage Road Charleston, SC 29417	
PROJECT MANAGER: Chris Potter														PHONE NO: (803) 568-8171	
Sampler (Signature) <i>Sharon Sauter</i>				(Printed Name) SHARON SAUTER										OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS	
Sample ID	Date Collected	Time Collected	Matrix	BTEX, GRO	BTEX	PAH, Lead, DRO	PAH	Lead	DRO	PAH, LEAD, TPH	PAH, TPH	PAH, DRO	No. of Bottles/Vials	OVA SCREENING	
1502B1	9/6/96	1526	SOIL	1	1	1	1	1	1	1	1	1	2	17.4 ppm	
1505A3	9/6/96	1110	SOIL	1	1	1	1	1	1	1	1	1	2	0 ppm	
1501C1	9/6/96	0950	SOIL	1	1	1	1	1	1	1	1	1	2	>1999 ppm	
3904C1	9/6/96	0905	SOIL	1	1	1	1	1	1	1	1	1	2	1999 ppm	EVA readings were questionable
1602B1	9/6/96	1625	SOIL	1	1	1	1	1	1	1	1	1	2	9.1 ppm	
4001B1	9/6/96	1100	SOIL	1	1	1	1	1	1	1	1	1	2	24.0 ppm	
1505B3	9/6/96	1115	SOIL	1	1	1	1	1	1	1	1	1	2	0 ppm	
1601B1	9/6/96	1450	SOIL	1	1	1	1	1	1	1	1	1	2	141.2 ppm	
1506B1	9/6/96	1320	SOIL	1	1	1	1	1	1	1	1	1	2	0 ppm	
1501B1	9/6/96	0930	SOIL	1	1	1	1	1	1	1	1	1	2	0 ppm	
1505B1	9/6/96	1112	SOIL	1	1	1	1	1	1	1	1	1	2	0 ppm	
0201E1	9/6/96	1535	SOIL	1	1	1	1	1	1	1	1	1	2	0 ppm	
0202A1	9/6/96	1315	SOIL	1	1	1	1	1	1	1	1	1	2	68.5 ppm	
RELINQUISHED BY: <i>Sharon Sauter</i>				Date/Time 1310		RECEIVED BY:		Date/Time		TOTAL NUMBER OF CONTAINERS: Cooler ID: #125		Cooler Temperature: 52			
COMPANY NAME: SML				Date/Time 9/8/96		COMPANY NAME:		Date/Time							
RECEIVED BY: <i>Raymond E. Reed</i>				Date/Time 9/8/96		RELINQUISHED BY:		Date/Time							
COMPANY NAME: GEL				Date/Time 1310		COMPANY NAME:		Date/Time							
RELINQUISHED BY: <i>Raymond E. Reed</i>				Date/Time 9/8/96		RECEIVED BY: <i>Sharon Sauter</i>		Date/Time 9-9-96							
COMPANY NAME: GEL				Date/Time 1630		COMPANY NAME: <i>Robert</i>		Date/Time 1630							

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0201C1

Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: 69089S

Matrix: (soil/water) SOIL

Lab Sample ID: 9609089-08

Sample wt/vol: 30.2 (g/mL) g

Lab File ID: 2L306

Level: (low/med) LOW

Date Received: 09/08/96

% Moisture: 11 decanted: (Y/N) N

Date Extracted: 09/11/96

Concentrated Extract Volume: 1 (mL)

Date Analyzed: 09/18/96

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
---------	----------	---	---

91-20-3-----	naphthalene	372	U
91-58-7-----	2-chloronaphthalene	372	U
209-96-8-----	acenaphthylene	372	U
83-32-9-----	acenaphthene	372	U
86-73-7-----	fluorene	372	U
85-01-8-----	phenanthrene	372	U
120-12-7-----	anthracene	372	U
206-44-0-----	fluoranthene	372	U
129-00-0-----	pyrene	372	U
56-55-3-----	benzo (a) anthracene	372	U
218-01-9-----	chrysene	372	U
205-99-2-----	benzo (b) fluoranthene	372	U
207-08-9-----	benzo (k) fluoranthene	372	U
50-32-8-----	benzo (a) pyrene	372	U
193-39-5-----	indeno (1,2,3-cd) pyrene	372	U
53-70-3-----	dibenz (a,h) anthracene	372	U
191-24-2-----	benzo (g,h,i) perylene	372	U

u
↓

1D
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0201E1

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 69088S
 Matrix: (soil/water) SOIL Lab Sample ID: 9609088-03
 Sample wt/vol: 5.0 (g/mL) g Lab File ID: B2Z310
 % Moisture: 24 decanted: (Y/N) N Date Received: 09/08/96
 Extraction: (SepF/Cont/Sonc) PURGETRAP Date Extracted: N/A
 Concentrated Extract Volume: 10 (ml) Date Analyzed: 09/11/96
 Injection Volume: _____ (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
 (ug/L or ug/Kg) ug/Kg Q

71-43-2-----Benzene	6.6	U
108-88-3-----Toluene	6.6	U
100-41-4-----Ethylbenzene	6.6	U
1330-20-7-----Xylenes (total)	6.6	U

DATA VALIDATION
COPY

Client: Science Applications International Corporation
P.O. Box 2502
800 Oak Ridge Turnpike
Oak Ridge, Tennessee 37831

Date: 10/10/96

Contact: Mr. Chris Potter
Project Description: Ft. Stewart UST Sites

Client Code: SAIC00396

Project Manager: Linda Darrington

Page: 1

Sample I.D.: 0201E1
Lab I.D.: 9609088-03
Sample Matrix: Soil
Date Collected: 09/06/96
Date Received: 09/08/96
Priority: Routine
Collected by: Client

Parameter

Analyte:

Qualifier	Result	Units	Method	Analyst	DateTime
JB	7.33 24	mg/kg %	EPA 418.1 Mod.	EAN	09/09/96 1100

Total Rec. Petro. Hydrocarbons
Evaporative Loss

10 u Fφ1, Fφ6

DATA VALIDATION
COPY

158

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0202A1

Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: 69088S

Matrix: (soil/water) SOIL

Lab Sample ID: 9609088-04

Sample wt/vol: 30.5 (g/mL) g

Lab File ID: 1L311

Level: (low/med) LOW

Date Received: 09/08/96

% Moisture: 6 decanted: (Y/N) N

Date Extracted: 09/11/96

Concentrated Extract Volume: 1 (mL)

Date Analyzed: 09/18/96

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.

COMPOUND

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

Q

91-20-3-----	naphthalene	349	U
91-58-7-----	2-chloronaphthalene	349	U
209-96-8-----	acenaphthylene	349	U
83-32-9-----	acenaphthene	349	U
86-73-7-----	fluorene	349	U
85-01-8-----	phenanthrene	349	U
120-12-7-----	anthracene	349	U
206-44-0-----	fluoranthene	349	U
129-00-0-----	pyrene	349	U
56-55-3-----	benzo(a)anthracene	349	U
218-01-9-----	chrysene	349	U
205-99-2-----	benzo(b)fluoranthene	349	U
207-08-9-----	benzo(k)fluoranthene	349	U
50-32-8-----	benzo(a)pyrene	349	U
193-39-5-----	indeno(1,2,3-cd)pyrene	349	U
53-70-3-----	dibenz(a,h)anthracene	349	U
191-24-2-----	benzo(g,h,i)perylene	349	U

DATA VALIDATION
COPY

1D
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0202B1

Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 69088S

Matrix: (soil/water) SOIL

Lab Sample ID: 9609088-13

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: B2Z320

% Moisture: 19 decanted: (Y/N) N

Date Received: 09/08/96

Extraction: (SepF/Cont/Sonc) PURGETRAP

Date Extracted: N/A

Concentrated Extract Volume: 10 (mL)

Date Analyzed: 09/11/96

Injection Volume: _____ (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

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

Q

71-43-2-----Benzene	6.2	U
108-88-3-----Toluene	19	
100-41-4-----Ethylbenzene	6.2	U
1330-20-7-----Xylenes (total)	6.2	U

U
=
U
U

DATA VALIDATED
COPY

Client: Science Applications International Corporation
P.O. Box 2502
800 Oak Ridge Turnpike
Oak Ridge, Tennessee 37831

Date: 10/10/96

Contact: Mr. Chris Potter
ProjectDescription: Ft. Stewart UST Sites

Client Code: SAIC00396

Project Manager: Linda Darrington

Page: 1

Sample I.D.: 0202B1
Lab I.D.: 9609088-13
Sample Matrix: Soil
Date Collected: 09/06/96
Date Received: 09/08/96
Priority: Routine
Collected by: Client

Parameter

Analyte:

Qualifier

Result

Units

Method

Analyst

DateTime

Total Rec. Petro.Hydrocarbons
Evaporative Loss

JB

11.3 U
19

mg/kg
%

EPA 418.1 Mod.

EAN

09/09/961100

MAP
1/7/96

DATA VALIDATION
COPY

168

CHAIN OF STUDY RECORD

COC NO.: GØØ

PROJECT NAME: Fort Stewart UST Sites				PROJECT NUMBER: 0003				PROJECT MANAGER: Chris Potter				LABORATORY NAME: GEL			
Sample (Signature) <i>SLT</i>				(Printed Name) Supt. Spiller				LABORATORY ADDRESS: 2040 Savage Road Charleston, SC 29417				PHONE NO: (803) 556-8171			
Sample ID	Date Collected	Time Collected	Matrix	BTEX, GRO	BTEX	PAH, Lead, DRO	PAH	Lead	DRO	REQUESTED PARAMETERS				OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
TB000B	9/6/96	0759	WATER		1										
1601W2	9/6/96	1500			2										
0102W2	9/6/96	1020			2										
1506W4	9/6/96	1340			2										
1502W2	9/6/96	1535			2										
0202W2	9/6/96	1335			2										
1602W2	9/6/96	1638			2										
0101A1	9/6/96				2										
1601W2	9/6/96	1135			2										
1501W2	9/6/96	1000			2										
0201W2	9/6/96	1550			2										
1502W2	9/6/96	1550			2										
3904W2	9/6/96	945			2										
RELINQUISHED BY: <i>SLT</i>				Date/Time: 9/8/96		RECEIVED BY:		Date/Time:		TOTAL NUMBER OF CONTAINERS: 84		Cooler Temperature: 50			
COMPANY NAME: SARC				13/0		COMPANY NAME:				Cooler ID: #237					
RECEIVED BY: <i>Raymond E Reed</i>				Date/Time: 9/8/96		RELINQUISHED BY:		Date/Time:							
COMPANY NAME: GEL				13/0		COMPANY NAME:									
RECEIVED BY: <i>Raymond E Reed</i>				Date/Time: 9/8/96		RECEIVED BY: <i>SLT</i>		Date/Time: 05-09-96							
COMPANY NAME: GEL				1630		COMPANY NAME: GEL		1630							

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0201W2

Name: GENERAL ENGINEERING LABOR Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69090W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9609090-06

Sample wt/vol: 500 (g/mL) mL Lab File ID: 2K216

Level: (low/med) LOW Date Received: 09/08/96

% Moisture: decanted: (Y/N) Date Extracted: 09/09/96

Concentrated Extract Volume: 0.5 (mL) Date Analyzed: 09/10/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L Q

91-20-3	naphthalene	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
209-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U
86-73-7	fluorene	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
56-55-3	benzo (a) anthracene	10.0	U
218-01-9	chrysene	10.0	U
205-99-2	benzo (b) fluoranthene	10.0	U
207-08-9	benzo (k) fluoranthene	10.0	U
50-32-8	benzo (a) pyrene	10.0	U
193-39-5	indeno (1,2,3-cd) pyrene	10.0	U
53-70-3	dibenz (a,h) anthracene	10.0	U
191-24-2	benzo (g,h,i) perylene	10.0	U

DATA VALIDATION
COPY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0202W2

Name: GENERAL ENGINEERING LABOR Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69090W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9609090-05

Sample wt/vol: 500 (g/mL) mL Lab File ID: 2K215

Level: (low/med) LOW Date Received: 09/08/96

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 09/09/96

Concentrated Extract Volume: 0.5 (mL) Date Analyzed: 09/10/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L Q

91-20-3-----	naphthalene	10.0	U
91-58-7-----	2-chloronaphthalene	10.0	U
209-96-8-----	acenaphthylene	10.0	U
83-32-9-----	acenaphthene	10.0	U
86-73-7-----	fluorene	10.0	U
85-01-8-----	phenanthrene	10.0	U
120-12-7-----	anthracene	10.0	U
206-44-0-----	fluoranthene	10.0	U
129-00-0-----	pyrene	10.0	U
56-55-3-----	benzo (a) anthracene	10.0	U
218-01-9-----	chrysene	10.0	U
205-99-2-----	benzo (b) fluoranthene	10.0	U
207-08-9-----	benzo (k) fluoranthene	10.0	U
50-32-8-----	benzo (a) pyrene	10.0	U
193-39-5-----	indeno (1,2,3-cd) pyrene	10.0	U
53-70-3-----	dibenz (a,h) anthracene	10.0	U
191-24-2-----	benzo (g,h,i) perylene	10.0	U

DATA VALIDATION
COPY

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

919 True Street ■ P.O. Box 90209 ■ Columbia, SC 29290
(803) 776-7789 ■ (800) 435-3995 ■ FAX (803) 783-2192

FINAL REPORT OF ANALYSES

ANDERSON COLUMBIA ENVIRON., INC
P.O. Box 1386
Lake City, FL 32056
Attn: Mr. Mike McRae

REPORT DATE: 02/08/95
PROJECT NAME- Ft. Stewart 1/30

SAMPLE ID- 8075-007-A-S

SAMPLE NUMBER- 4641
SAMPLE MATRIX- SOIL

DATE SAMPLED- 01/24/95
TIME SAMPLED- 1400
DATE RECEIVED- 01/30/95

TIME RECEIVED- 1000
DELIVERED BY- Greyhound
RECEIVED BY- RM
SAMPLER- Diane Howell

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	87.2 %	0.01		01/31/95		
TOT. PET. HYDROCARBONS-OIL	34.2 mg/Kg	11.5	02/06/95	02/07/95	9071	
FILE ORGANIC COMPOUNDS				01/30/95	8020	
BENZENE	<1.15 ug/Kg	1.15				
TOLUENE	<1.15 ug/Kg	1.15				
CHLOROBENZENE	<1.15 ug/Kg	1.15				
M,P-XYLENES	183. ug/Kg	2.29				
O-XYLENES	10.3 ug/Kg	1.15				
ETHYL BENZENE	21.8 ug/Kg	1.15				
1,2-DICHLOROBENZENE	<1.15 ug/Kg	1.15				
1,3-DICHLOROBENZENE	<1.15 ug/Kg	1.15				
1,4-DICHLOROBENZENE	<1.15 ug/Kg	1.15				
SURROGATE BROMOFLUOROBENZENE	85 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	94 % Recovery					

SAMPLE ID- 8075-007-B-S

SAMPLE NUMBER- 4642
SAMPLE MATRIX- SOIL

DATE SAMPLED- 01/24/95
TIME SAMPLED- 1355
DATE RECEIVED- 01/30/95

TIME RECEIVED- 1000
DELIVERED BY- Greyhound
RECEIVED BY- RM
SAMPLER- Diane Howell

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	87.9 %	0.01		01/31/95		
TOT. PET. HYDROCARBONS-OIL	28.1 mg/Kg	11.4	02/06/95	02/07/95	9071	
FILE ORGANIC COMPOUNDS				01/30/95	8020	

CONTINUATION OF DATA FOR SAMPLE NUMBER 4642

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
BENZENE	<1.14 ug/Kg	1.14				
TOLUENE	<1.14 ug/Kg	1.14				
CHLOROBENZENE	<1.14 ug/Kg	1.14				
M,P-XYLENES	131 ug/Kg	2.28				
O-XYLENES	<1.14 ug/Kg	1.14				
ETHYL BENZENE	12.5 ug/Kg	1.14				
1,2-DICHLOROBENZENE	<1.14 ug/Kg	1.14				
1,3-DICHLOROBENZENE	<1.14 ug/Kg	1.14				
1,4-DICHLOROBENZENE	<1.14 ug/Kg	1.14				
SURROGATE BROMOFLUOROBENZENE	79 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	89 % Recovery					

SAMPLE ID- 8075-94-A-A-S

TIME RECEIVED- 1000

SAMPLE NUMBER- 4643

DATE SAMPLED- 01/25/95

DELIVERED BY- Greyhound

SAMPLE MATRIX- SOIL

TIME SAMPLED- 1145

RECEIVED BY- RM

DATE RECEIVED- 01/30/95

SAMPLER- Diane Howell

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	88.7 %	0.01		01/31/95		
TOT. PET. HYDROCARBONS-OIL	9060 mg/Kg	11.3	02/06/95	02/07/95	9071	
VOLATILE ORGANIC COMPOUNDS				01/31/95	8020	
BENZENE	496. ug/Kg	113				100
TOLUENE	4800 ug/Kg	113				100
CHLOROBENZENE	<113 ug/Kg	113				100
M,P-XYLENES	13900 ug/Kg	225.				200
O-XYLENES	5610 ug/Kg	113				100
ETHYL BENZENE	2650 ug/Kg	113				100
1,2-DICHLOROBENZENE	496. ug/Kg	113				100
1,3-DICHLOROBENZENE	<113 ug/Kg	113				100
1,4-DICHLOROBENZENE	<113 ug/Kg	113				100
SURROGATE BROMOFLUOROBENZENE	109 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	114 % Recovery					

SAMPLE ID- 8075-94-A-B-S

SAMPLE NUMBER- 4644

SAMPLE MATRIX- SOIL

DATE SAMPLED- 01/25/95

TIME SAMPLED- 1150

DATE RECEIVED- 01/30/95

TIME RECEIVED- 1000

DELIVERED BY- Greyhound

RECEIVED BY- RM

SAMPLER- Diane Howell

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	87.3 %	0.01		01/31/95		
TOT. PET. HYDROCARBONS-OIL	4720 mg/Kg	11.4	02/06/95	02/07/95	9071	
VOLATILE ORGANIC COMPOUNDS				01/31/95	8020	
BENZENE	281 ug/Kg	114.				100
TOLUENE	2550 ug/Kg	114.				100
CHLOROBENZENE	<114. ug/Kg	114.				100
M,P-XYLENES	8040 ug/Kg	229.				200
O-XYLENES	4780 ug/Kg	114.				100
ETHYL BENZENE	1040 ug/Kg	114.				100
1,2-DICHLOROBENZENE	488 ug/Kg	114.				100
1,3-DICHLOROBENZENE	384 ug/Kg	114.				100
1,4-DICHLOROBENZENE	590 ug/Kg	114.				100
SURROGATE BROMOFLUOROBENZENE	115 % Recovery					
OGATE aaa-TRIFLUOROTOLUENE	100 % Recovery					

SCDHEC Laboratory ID 40111

LABORATORY DIRECTOR

James H. Carr

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 02/08/95

QA/QC for SAMPLE Nos: 4641, 4642, 4643, 4644,

Page 1

Analysis	Blank Conc.	Sample Number	Sample Type	Precision Data			Accuracy Data			Ref. Sample Data					Analy. Batch Number
				Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.	Found Conc.	
BENZENE 8020 ug/kg	< 1	4642	MS	0.0	11.7	200.00	MS	<1.0	20.0	0.0	-2.5				5306, 5306, 5306,
	< 1	4642					MSD	<1.0	20.0	11.7	56.0				5359, , 5306,
			BS	16.3	15.9	2.48	BS	0	20.0	16.3	81.5				5306, 5306,
			BS	17.9	18.3	2.21	BSD	0	20.0	15.9	79.5				5359, 5306,
							BS	0	20.0	17.9	89.5				5359,
							BSD	0	20.0	18.3	91.5				5359,
TOLUENE 8020 ug/Kg	< 1	4642	MS	0.0	11.3	200.00	MS	<1.0	20.0	0.0	-2.5				5306, 5306, 5306,
	< 1	4642					MSD	<1.0	20.0	11.3	54.0				5359, , 5306,
			BS	16.3	16.1	1.23	BS	0	20.0	16.3	81.5				5306, 5306,
			BS	18.4	18.4	0.00	BSD	0	20.0	16.1	80.5				5359, 5306,
							BS	0	20.0	18.4	92.0				5359,
							BSD	0	20.0	18.4	92.0				5359,
CHLOROBENZENE 8020 ug/Kg	< 1	4642	MS	0.0	10.9	200.00	MS	<1.0	20.0	0.0	-2.5				5306, 5306, 5306,
	< 1	4642					MSD	<1.0	20.0	10.9	52.0				5359, , 5306,
			BS	17.4	16.4	5.92	BS	0	20.0	17.4	87.0				5306, 5306,
			BS	18.6	18.9	1.60	BSD	0	20.0	16.4	82.0				5359, 5306,
							BS	0	20.0	18.6	93.0				5359,
							BSD	0	20.0	18.9	94.5				5359,

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 02/08/95

QA/QC for SAMPLE Nos: 4641, 4642, 4643, 4644,

Page 2

Analysis	Blank Conc.	Sample Number	Sample Type	Precision Data			Accuracy Data			Ref. Sample Data				Analy. Batch Number
				Rep A	Rep B	RPD %	Samp Type	Raw Spk Conc.	Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.	Found Conc. %
M,P-XYLENES 8020 ug/Kg	< 2	4642	MS	0.0	29.1	200.00	MS	57.6	40.0	0.0	-144.0			5306, 5306, 5306,
	< 2	4642	BS	33.5	32.1	4.27	BS	57.6	40.0	86.7	72.8			5359, , 5306,
			BS	40.5	38.7	4.55	BSD	0	40.0	33.5	83.8			, 5306, 5306,
							BS	0	40.0	32.1	80.3			, 5359, 5306,
							BSD	0	40.0	40.5	101.3			, , 5359,
O-XYLENES 8020 ug/Kg	< 1	4642	MS	0.0	16.1	200.00	MS	<1.0	20.0	0.0	-2.5			5306, 5306, 5306,
	< 1	4642	BS	18.3	18.0	1.65	BS	<1.0	20.0	16.1	78.0			5359, , 5306,
			BS	19.3	19.1	1.04	BSD	0	20.0	18.3	91.5			, 5306, 5306,
							BS	0	20.0	18.0	90.0			, 5359, 5306,
							BSD	0	20.0	19.3	96.5			, , 5359,
ETHYL BENZENE 8020 ug/Kg	< 1	4642	MS	0.0	11.7	200.00	MS	5.3	20.0	0.0	-26.5			5306, 5306, 5306,
	< 1	4642	BS	16.6	15.7	5.57	BS	5.3	20.0	17.0	58.5			5359, , 5306,
			BS	20.5	19.7	3.98	BSD	0	20.0	16.6	83.0			, 5306, 5306,
							BS	0	20.0	15.7	78.5			, 5359, 5306,
							BSD	0	20.0	20.5	102.5			, , 5359,

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 02/08/95

QA/QC for SAMPLE Nos: 4641, 4642, 4643, 4644,

Page 3

Analysis	Blank Conc.	Sample Number	Sample Type	Precision Data			Accuracy Data			Ref. Sample Data					Analy. Batch Number		
				Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Conc.	Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.		Found Conc.	Rec. %
1,2-DICHLOROBENZEN	< 1	4642	MS	0.0	10.4	200.00	MS	<1.0		20.0	0.0	-2.5					5306, 5306, 5306,
E	< 1	4642					MSD	<1.0		20.0	10.4	49.5					5359, 5306,
8020			BS	20.1	19.5	3.03	BS	0		20.0	20.1	100.5					5306, 5306,
ug/Kg			BS	21.6	22.5	4.08	BSD	0		20.0	19.5	97.5					5359, 5306,
							BS	0		20.0	21.6	108.0					5359, 5306,
							BSD	0		20.0	22.5	112.5					5359, 5359,
1,3-DICHLOROBENZEN	< 1	4642	MS	0.0	10.3	200.00	MS	<1.0		20.0	0.0	-2.5					5306, 5306, 5306,
E	< 1	4642					MSD	<1.0		20.0	10.3	49.0					5359, 5306,
8020			BS	20.1	19.4	3.54	BS	0		20.0	20.1	100.5					5306, 5306,
ug/Kg			BS	22.0	22.5	2.25	BSD	0		20.0	19.4	97.0					5306, 5306,
							BS	0		20.0	22.0	110.0					5359, 5306,
							BSD	0		20.0	22.5	112.5					5359, 5359,
1,4-DICHLOROBENZEN	< 1	4642	MS	0.0	10.9	200.00	MS	<1.0		20.0	0.0	-2.5					5306, 5306, 5306,
E	< 1	4642					MSD	<1.0		20.0	10.9	52.0					5359, 5306,
8020			BS	20.3	19.7	3.00	BS	0		20.0	20.3	101.5					5306, 5306,
ug/Kg			BS	22.4	22.9	2.21	BSD	0		20.0	19.7	98.5					5359, 5306,
							BS	0		20.0	22.4	112.0					5359, 5306,
							BSD	0		20.0	22.9	114.5					5359, 5359,

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 02/08/95

QA/QC for SAMPLE Nos: 4641, 4642, 4643, 4644,
Page 4

Analysis	Blank Sample Conc.	Sample Type	Precision Data			Accuracy Data			Ref. Sample Data					Analy. Batch Number		
			Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.	Found Conc.		Rec. %	
SURROGATE	4642															
BROMOFLUOROBENZENE	4642						MS	0	30.0	0.0	0.0					5306,
8020							MSD	0	30.0	16.7	55.7					5306,
% Recovery							B	0	30.0	26.3	87.7					5306,
							BS	0	30.0	27.6	92.0					5306,
							BSD	0	30.0	26.6	88.7					5306,
							B	0	30.0	31.3	104.3					5306,
							BS	0	30.0	30.3	101.0					5359,
							BSD	0	30.0	30.8	102.7					5359,
SURROGATE aa-TRIF	4642						MS	0	30.0	0.0	0.0					5359,
LUOROTOLUENE	4642						MSD	0	30.0	17.8	59.3					5306,
8020							B	0	30.0	28.2	94.0					5306,
% Recovery							BS	0	30.0	26.8	89.3					5306,
							BSD	0	30.0	25.8	86.0					5306,
							B	0	30.0	33.7	112.3					5306,
							BS	0	30.0	30.3	101.0					5359,
							BSD	0	30.0	29.5	98.3					5359,

ANDERSON COLUMBIA
ENVIRONMENTAL, INC.

CHAIN OF CUSTODY RECORD

Page ___ of ___

Project No. 8075 Project Name FT. STEWART 44

Sampler (Signature) T.D.H. Diane Howell

Sample Number	Date	Time	Grp	Comp	Sample Location
8075-007-A-S	1/24/95	2:00 PM	✓		Soil
8075-007-B-S	1/24/95	2:55 PM	✓		Soil
8075-94-A-A-S	1/25/95	11:45 AM	✓		Soil
8075-94-A-B-S	1/25/95	11:50 AM	✓		Soil
TEAP Vial	1/25/95				H ₂ O

No. of Containers	Preservative	Remarks:
1	UN	4641
1	UN	4642
1	UN	4643
1	UN	4644
1	UN	= 20.1°C, ice melted
		NO C.O.C. Decks

Relinquished by: Diane Hall	Date / Time: 1/24/95 9:00 AM	Received by: Haymond	Date / Time	Received by:	Remarks:
Relinquished by:	Date / Time	Received by:	Date / Time	Received by:	Remarks:
Relinquished by: Haymond	Date / Time: 1-30-95/1000	Received by: R. Mott	Date / Time	Received by:	Remarks:

Excavation of Contaminated Soil and Supporting Manifests

Anderson Columbia (ACE) did not maintain accurate records from individual UST removals prior to 1996. Therefore, the Installation cannot confirm whether or not soil was removed from these sites. Conversations with ACE personnel who were on-site during tank removal activities support the claim that soil was NOT excavated at these sites.

NOTE: All contaminated soil removed during the **entire** project (i.e., all 43 USTs removed under contract with ACE, to include clean and non-clean closures) was tested and transported to Kedesh, Inc., Highway 84, Ludowici, GA 31316. The Installation has records of all manifests and weight tickets for this project. However, site/UST specific information is not available.