

CLOSURE REPORT

**Waste Oil Tank
Building 1542, Tank #42
Facility ID #: 9-089014**

Fort Stewart, Georgia

Prepared by

Fort Stewart Directorate of Public Works, Environmental Branch

May 1997

Fort Stewart, Georgia
Underground Storage Tank Removal and Closure Report

Table of Contents

<u>Item</u>	<u>Tab</u>
Georgia Closure Forms	1
Site Map	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. 9-089014
UST #42

. APRIL 3, 1998

NOTE: PLEASE INSERT THIS ADDENDUM INTO THE CLOSURE REPORT
SUBMITTED TO THE USTMP 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. Barren, Commissioner
Harold F. Reheis, Director
(404)362-2687



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: US Army
Address: HQ, 3d 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: FAC 1542
Street Address: 8th Street
Fort Stewart GA 31314-5000
(city) (state) (zip code)
Facility ID#: 9-089014

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: DSB Date: _____

4. Site-specific Hydrogeology:

Depth to Groundwater: 2.92 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: June 21, 1995

Tank #	Tank Size (gallons)	Tank Contents
#42	1,000	Waste Oil

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

- Attach Amended Notification Form 7530-1 (SEE TAB 6)
- 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 _____
Not Applicable

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)

0.00 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: Stream (Mill Creek)
Distance to closest surface water body: mile(s) or 1500 feet

☐ Not Applicable

11. Conclusions or Recommendations: Choose one.

☒ Clean Closure, thus No Further Action is Required.

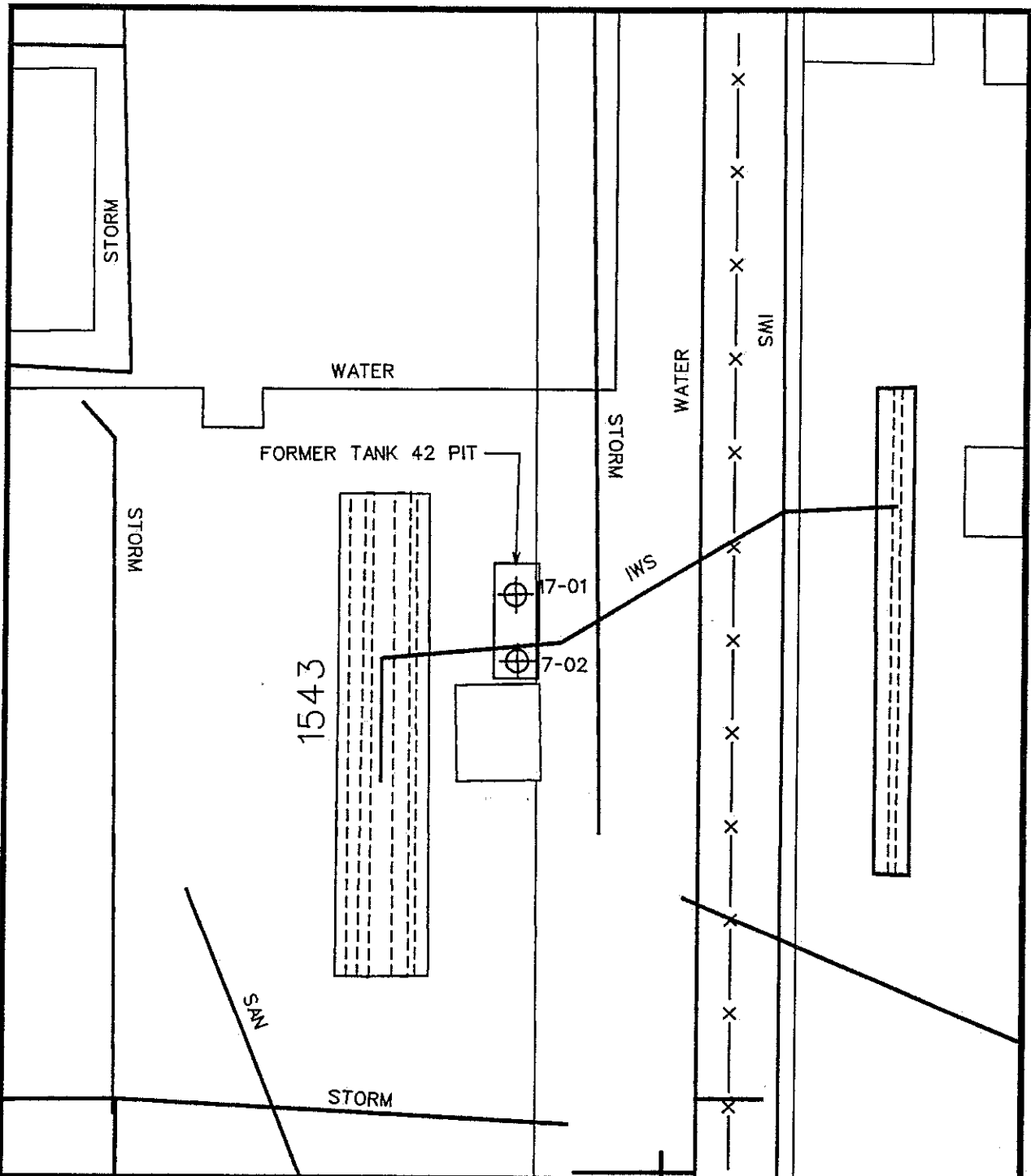
☐ Soil Excavated Within the Limits Specified in Question 7 (GUST-9) and Transported to an EPD Treatment/Disposal Facility, Thus No Further Action is Required.

INFORMATION ON MAPS

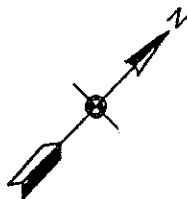
MAPS #1: Provided to Installation by SAIC after groundwater investigation

MAPS #2: Copied from Installation archives to show exact location of UST and to show how system was installed

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



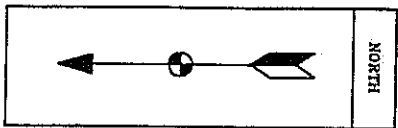
0 20 40 80
SCALE: 1" = 40'



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

FACILITY ID • 9-089014

DESIGNED BY	REV. NO./DATE	CAD FILE
J. LAMB	07/03/03/97	96016/DCMS/600014A.DGN



GRASSY AREA

BLDG. #1542

CONCRETE SLAB

GRAESE RAMPS

LEGEND/REF. DRWG.'S

TANK SIZE: 1,000 GAL. U.S.T.
TANK PIT DIMENSIONS:
18' WIDTH, 30' LENGTH, 12' DEPTH

ANDERSON COLUMBIA

E V I R O N M E N T A L , I N C.
P.O. BOX 1386 LAKE CITY, FLORIDA 32056 (904) 755-1186

DR. N.A.M. CH'D _____ DR. APP. _____
ENGR. _____ E.T. 'S DEPT. _____
DATE 1-24-96 N.T.S.

JOB #8084 - FT. STEWART

BLDG. #1542

TANK #42

DRAWING NO.: 26

()

()

()

STATE OF GEORGIA
NOTIFICATION DATA FOR UNDERGROUND STORAGE TANK

state use only

Part I: Facility Data

FACILITY ID NUMBER: 9-089014

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): 1

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 1542
Street Address: FAC 1542
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	9-089014			
TANK ID	42			
Status of Tank				
Currently In Use	☒			
Temp. Out of Use	☐			
Perm. Out of Use	☒			
Date of Installation	01-01-1983			
Age	12			
Est. Total Capacity	1,000			
Material of Construction				
Asphalt or Bare Steel				
Cath. Protected Steel				
Epoxy Coated Steel				
Composite				
Fiberglass Reinf. Plas.	☒			
Lined Interior				
Double Walled				
Poly. Tank Jacket				
Concrete				
Excavation Liner				
Unknown				
Other, explanation				
Date Tank Repaired				
Material				
Carbon Steel				
Galvanized Steel	☒			
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				
Used Oil	☒			
Propane				
Other, explanation				

STATE OF GEORGIA
NOTIFICATION DATA FOR UNDERGROUND STORAGE TANK

Part II: Tank Data

FACILITY ID	9-089014			
TANK ID	42			
Substance Stored in Tank				
Hazardous Substance				
CERCLA Name				
CAS Number				
Mixture				
Mixture, Specification				
Out of Use/Change Service				
Tank Piping				
Est. Date Last Used	04-95			
Est. Date Closed	06-95			
Removed from Ground	06-95			
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 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				
Signature				
Date				

Q

Q

Q

CLOSURE REPORT ADDENDUM
UST #42, FACILITY ID. NO. 9-089014

CLOSURE OF PIPING
TAB 6

The undersigned certifies that the piping associated with former Tank #42, located at Building 1542, Fort Stewart, GA, 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 at the grease rack).

The undersigned also certifies that the piping at this facility was associated with Tank #42, which was used for storage of waste oil. The piping was not greater than 25 feet, and in accordance with GUST Rules, sampling is not required.

Name: John H. Spears

Title: Chief, Environmental Branch

Signature: John H. Spears

Date: 4/2/98



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**

Tanks	Borehole	Water Level Depth	Ground Surface Elevation	Water Level Elevation
42	17-01	2.92 feet BGS	70.86 feet MLS	67.94 feet MLS
	17-02	2.97 feet BGS	70.92 feet MLS	67.95 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 excavated tank and from the sidewalls of the excavation (i.e., six (6) samples). 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.

1

2

3

LABORATORY ANALYTICAL RESULTS

Analytical results for UST #42 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 (Summer 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.

1

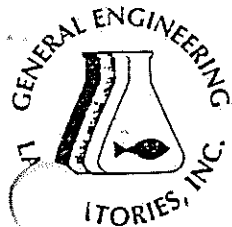
2

3

CLOSURE REPORT ADDENDUM
UST #42, FACILITY ID. NO. 9-089014

LABORATORY ANALYTICAL DATA
TAB 7

The contract laboratory for the samples collected at this site (Tank #42, Facility Id. No. 9-089014) was General Engineering Laboratory, a subcontractor of Science Application International Corporation. The Installation reviewed the laboratory data submitted with the closure report, and agree that the methodology used by the laboratory and the detection limits for compounds found above the detection limit was not provided. This information is contained in the attachment to this "coversheet", and all information should be added to Tab 7 of the Closure Report submitted in July 1997.



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: Robert L. Pullano

Date: 1 April 98



Investigation: 17		Station	17-01	17-02
	Sample ID	1701A1	1702B1	
	Date Collected	9/20/96	9/20/96	
	Depth	1.0 - 2.5 FT	2.5 - 5.0 FT	
		GDNR Level	MG/KG	MG/KG
Polynuclear Aromatic Hydrocarbons		MG/KG	MG/KG	MG/KG
2-Chloronaphthalene		NA	0.396 U	0.364 U
Acenaphthene		NA	0.396 U	0.364 U
Acenaphthylene		NA	0.396 U	0.364 U
Anthracene		NA	0.396 U	0.364 U
Benzo(a)anthracene		NA	0.396 U	0.364 U
Benzo(a)pyrene		NA	0.396 U	0.364 U
Benzo(b)fluoranthene		NA	0.396 U	0.364 U
Benzo(g,h,i)perylene		NA	0.396 U	0.364 U
Benzo(k)fluoranthene		NA	0.396 U	0.364 U
Chrysene		NA	0.396 U	0.364 U
Dibenzo(a,h)anthracene		NA	0.396 U	0.364 U
Fluoranthene		NA	0.396 U	0.364 U
Fluorene		NA	0.396 U	0.364 U
Naphthalene		NA	0.396 U	0.364 U
Phenanthrene		NA	0.396 U	0.364 U
Pyrene		NA	0.396 U	0.364 U
		GDNR Level	MG/KG	MG/KG
Petroleum Hydrocarbons		MG/KG	MG/KG	MG/KG
Total Petroleum Hydrocarbons		NRC	99.6 =	14.9 U
		GDNR Level	MG/KG	MG/KG
Volatile Organics		MG/KG	MG/KG	MG/KG
Benzene		0.008	0.0061 U	0.0056 U
Ethylbenzene		10	0.0061 U	0.0056 U
Toluene		6	0.0061 U	0.0056 U
Xylenes, Total		700	0.0061 U	0.0056 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 #9-089014, UST 42, Site Investigation

Investigation: 17		Station	17-01	17-02
		Sample ID	1701W2	1702W2
		Date Collected	9/20/96	9/20/96
		Depth	5.0 - 8.0 FT	7.2 - 9.0 FT
		EPA MCL		
Polynuclear Aromatic Hydrocarbons		UG/L	UG/L	UG/L
2-Chloronaphthalene		NA	40 UJ	103 UJ
Acenaphthene		NA	40 UJ	103 UJ
Acenaphthylene		NA	40 UJ	103 UJ
Anthracene		NA	40 UJ	103 UJ
Benzo(a)anthracene		NA	40 UJ	103 UJ
Benzo(a)pyrene		0.2	40 UJ	103 UJ
Benzo(b)fluoranthene		NRC	40 UJ	103 UJ
Benzo(g,h,i)perylene		NA	40 UJ	103 UJ
Benzo(k)fluoranthene		NRC	40 UJ	103 UJ
Chrysene		NRC	40 UJ	103 UJ
Dibenzo(a,h)anthracene		NRC	40 UJ	103 UJ
Fluoranthene		NA	40 UJ	103 UJ
Fluorene		NA	40 UJ	103 UJ
Indeno(1,2,3-cd)pyrene		NRC	40 UJ	103 UJ
Naphthalene		NA	40 UJ	103 UJ
Phenanthrene		NA	40 UJ	103 UJ
Pyrene		NA	40 UJ	103 UJ
		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.

**Groundwater Analytical Results for the
Facility ID #9-089014, WWT 42, Site Investigation**



CHAIN OF CUSTODY RECORD

COC NO.: 6887

FILE 2 OF 2

CHAIN OF CUSTODY RECORD

[illegible]

DATA VALIDATION

1D

EPA SAMPLE NO.

COPY VOLATILE ORGANICS ANALYSIS DATA SHEET

1701A1

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 69427S

Matrix: (soil/water) SOIL Lab Sample ID: 9609427-04

Sample wt/vol: 5.0 (g/mL) g Lab File ID: B1C47

% Moisture: 18 decanted: (Y/N) N Date Received: 09/21/96

Extraction: (SepF/Cont/Sonc) PURGETRAP Date Extracted: N/A

Concentrated Extract Volume: 10 (ml) Date Analyzed: 10/03/96

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	6.1	U
108-88-3-----Toluene	6.1	U
100-41-4-----Ethylbenzene	6.1	U
1330-20-7-----Xylenes (total)	6.1	U

DATA VALIDATION

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1701A1

Lab Name: GENERAL ENGINEERING LABOR Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69427S

Matrix: (soil/water) SOIL Lab Sample ID: 9609427-04

Sample wt/vol: 30.8 (g/mL) g Lab File ID: 1N411

Level: (low/med) LOW Date Received: 09/21/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 10/03/96

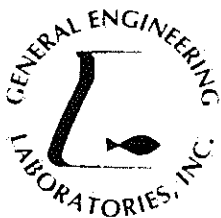
Concentrated Extract Volume: 1 (mL) Date Analyzed: 10/04/96

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	396	U
91-58-7-----	2-chloronaphthalene	396	U
209-96-8-----	acenaphthylene	396	U
83-32-9-----	acenaphthene	396	U
86-73-7-----	fluorene	396	U
85-01-8-----	phenanthrene	396	U
120-12-7-----	anthracene	396	U
206-44-0-----	fluoranthene	396	U
129-00-0-----	pyrene	396	U
56-55-3-----	benzo (a) anthracene	396	U
218-01-9-----	chrysene	396	U
205-99-2-----	benzo (b) fluoranthene	396	U
207-08-9-----	benzo (k) fluoranthene	396	U
50-32-8-----	benzo (a) pyrene	396	U
193-39-5-----	indeno (1,2,3-cd) pyrene	396	U
53-70-3-----	dibenz (a,h) anthracene	396	U
191-24-2-----	benzo (g,h,i) perylene	396	U



GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	02934

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

Contact: Mr. Nile Luedtke

Project Description: Ft. Stewart UST Sites

cc: SAIC00396

Report Date: October 25, 1996

Page 1 of 2

Sample ID	: 1701A1
Lab ID	: 9609427-04
Matrix	: Soil
Date Collected	: 09/20/96
Date Received	: 09/21/96
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Organic Prep											
Evaporative Loss @ 105 C		18.0	1.00	1.00	wt%	1.0	JDB	10/02/96	1550	91524	1
General Chemistry											
Total Rec. Petro. Hydrocarbons B		99.6 = F08	8.25	12.2	mg/kg	1.0	EAN	09/26/96	1300	91171	2

M = Method

Method-Description

M 1	EPA 3550
M 2	EPA 418.1 Modified

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

Data reported in mass/mass units is reported as 'dry weight'.

257

P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29414

(803) 556-8171 • Fax (803) 766-1178

Printed on recycled paper



9609427-04

1D
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1702B1

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 69427S

Matrix: (soil/water) SOIL Lab Sample ID: 9609427-03

Sample wt/vol: 5.0 (g/mL) g Lab File ID: B1C46

% Moisture: 10 decanted: (Y/N) N Date Received: 09/21/96

Extraction: (SepF/Cont/Sonc) PURGETRAP Date Extracted: N/A

Concentrated Extract Volume: 10 (mL) Date Analyzed: 10/03/96

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	5.6	U
100-41-4-----Ethylbenzene	5.6	U
1330-20-7-----Xylenes (total)	5.6	U

DATA VOL 531
1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1702B1

Lab Name: GENERAL ENGINEERING LABOR Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69427S

Matrix: (soil/water) SOIL Lab Sample ID: 9609427-03

Sample wt/vol: 30.5 (g/mL) g Lab File ID: 1N410

Level: (low/med) LOW Date Received: 09/21/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 10/03/96

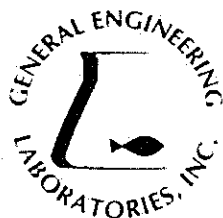
Concentrated Extract Volume: 1 (mL) Date Analyzed: 10/04/96

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	364	U
91-58-7	2-chloronaphthalene	364	U
209-96-8	acenaphthylene	364	U
83-32-9	acenaphthene	364	U
86-73-7	fluorene	364	U
85-01-8	phenanthrene	364	U
120-12-7	anthracene	364	U
206-44-0	fluoranthene	364	U
129-00-0	pyrene	364	U
56-55-3	benzo (a) anthracene	364	U
218-01-9	chrysene	364	U
205-99-2	benzo (b) fluoranthene	364	U
207-08-9	benzo (k) fluoranthene	364	U
50-32-8	benzo (a) pyrene	364	U
193-39-5	indeno (1,2,3-cd) pyrene	364	U
53-70-3	dibenz (a,h) anthracene	364	U
191-24-2	benzo (g,h,i) perylene	364	U



GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	02934

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

Contact: Mr. Nile Luedtke

Project Description: FL Stewart UST Sites

cc: SAIC00396

Report Date: October 25, 1996

Page 1 of 2

Sample ID	: 1702B1
Lab ID	: 9609427-03
Matrix	: Soil
Date Collected	: 09/20/96
Date Received	: 09/21/96
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Organic Prep											
Evaporative Loss @ 105 C		10.0	1.00	1.00	wt%	1.0	JDB	10/02/96	1550	91524	1
General Chemistry											
Total Rec. Petro. Hydrocarbons B		14.9 UF01, F07	7.50	11.1	mg/kg	1.0	EAN	09/26/96	1300	91171	2

M = Method	Method-Description
M 1	EPA 3550
M 2	EPA 418.1 Modified

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

Data reported in mass/mass units is reported as 'dry weight'.

256

P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29414

(803) 556-8171 • Fax (803) 766-1178



Printed on recycled paper



9609427-03



COC NO.: 64483

CHAIN OF CUSTODY RECORD

[illegible]



CHAIN OF CUSTODY RECORD

COC NO.: 60054

[illegible]



COC NO.: 64417

CHAIN OF CUSTODY RECORD

[illegible]

3

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1701W2

Lab Name: GENERAL ENGINEERING LABS. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69424W

Matrix: (soil/water) WATER Lab Sample ID: 9609424-19

Sample wt/vol: 20 (g/ml) ml Lab File ID: 1C427

Level: (low/med) LOW Date Received: 09/21/96

% Moisture: not dec. Date Analyzed: 10/03/96

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	U
108-88-3-----toluene	5 -0.38	JB	U FP1, FP6
100-41-4-----ethylbenzene	5.0	U	U
1330-20-7-----xylenes (total)	5.0	U	U

map
12/24/61

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1701W2RE0

Lab Name: GENERAL ENGINEERING LABS Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69425W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9609425-05

Sample wt/vol: 500 (g/mL) mL Lab File ID: 8M404

Level: (low/med) LOW Date Received: 09/21/96

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 10/02/96

Concentrated Extract Volume: 0.5 (mL) Date Analyzed: 10/04/96

Injection Volume: 1.0 (uL) Dilution Factor: 4.0

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	40.0	U
91-58-7-----	2-chloronaphthalene	40.0	U
209-96-8-----	acenaphthylene	40.0	U
83-32-9-----	acenaphthene	40.0	U
86-73-7-----	fluorene	40.0	U
85-01-8-----	phenanthrene	40.0	U
120-12-7-----	anthracene	40.0	U
206-44-0-----	fluoranthene	40.0	U
129-00-0-----	pyrene	40.0	U
56-55-3-----	benzo(a)anthracene	40.0	U
218-01-9-----	chrysene	40.0	U
205-99-2-----	benzo(b)fluoranthene	40.0	U
207-08-9-----	benzo(k)fluoranthene	40.0	U
50-32-8-----	benzo(a)pyrene	40.0	U
193-39-5-----	indeno(1,2,3-cd)pyrene	40.0	U
53-70-3-----	dibenz(a,h)anthracene	40.0	U
191-24-2-----	benzo(g,h,i)perylene	40.0	U

UT API

USE

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1702W2

Lab Name: GENERAL ENGINEERING LABS. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69424W

Matrix: (soil/water) WATER Lab Sample ID: 9609424-20

Sample wt/vol: 20 (g/ml) ml Lab File ID: 1C428

Level: (low/med) LOW Date Received: 09/21/96

% Moisture: not dec. Date Analyzed: 10/03/96

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	U
108-88-3-----toluene	5 0.36	JB	U F21, F26
100-41-4-----ethylbenzene	5.0	U	U
1330-20-7-----xylenes (total)	5.0	U	U

MAP
12/24/91

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1702W2RE0

Lab Name: GENERAL ENGINEERING LABS Contract:

Lab Code: Case No.: SAS No.: SDG No.: 69425W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9609425-07

Sample wt/vol: 485 (g/mL) mL Lab File ID: 4N508

Level: (low/med) LOW Date Received: 09/21/96

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 10/02/96

Concentrated Extract Volume: 0.5 (mL) Date Analyzed: 10/04/96

Injection Volume: 1.0 (uL) Dilution Factor: 10.0

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	103 U	US AD ↓ CPS
91-58-7	-----2-chloronaphthalene	103 U	
209-96-8	-----acenaphthylene	103 U	
83-32-9	-----acenaphthene	103 U	
86-73-7	-----fluorene	103 U	
85-01-8	-----phenanthrene	103 U	
120-12-7	-----anthracene	103 U	
206-44-0	-----fluoranthene	103 U	
129-00-0	-----pyrene	103 U	
56-55-3	-----benzo (a) anthracene	103 U	
218-01-9	-----chrysene	103 U	
205-99-2	-----benzo (b) fluoranthene	103 U	
207-08-9	-----benzo (k) fluoranthene	103 U	
50-32-8	-----benzo (a) pyrene	103 U	
193-39-5	-----indeno (1,2,3-cd) pyrene	103 U	
53-70-3	-----dibenz (a,h) anthracene	103 U	
191-24-2	-----benzo (g,h,i) perylene	103 U	

USP

CONTINUATION OF DATA FOR SAMPLE NUMBER 7981

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
SURROGATE BROMOFLUOROBENZENE	94.2 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	87.2 % Recovery					
MTBE	<29.1 ug/Kg	29.1				5
DIPE	<29.1 ug/Kg	29.1				5
POLYNUCLEAR AROMATIC HYDROCARB			07/05/95	07/10/95	8100	
NAPHTHALENE	<768. ug/Kg	768.				
ACENAPHTHYLENE	<768. ug/Kg	768.				
ACENAPHTHENE	<768. ug/Kg	768.				
FLUORENE	<768. ug/Kg	768.				
PHENANTHRENE	<768. ug/Kg	768.				
ANTHRACENE	<768. ug/Kg	768.				
FLUORANTHENE	<768. ug/Kg	768.				
PYRENE	<768. ug/Kg	768.				
BENZO(A)ANTHRACENE	<768. ug/Kg	768.				
CHRYSENE	<768. ug/Kg	768.				
BENZO(B)FLUORANTHENE	<768. ug/Kg	768.				
BENZO(K)FLUORANTHENE	<768. ug/Kg	768.				
BENZO(A)PYRENE	<768. ug/Kg	768.				
INDENO(1,2,3-CD)PYRENE	<768. ug/Kg	768.				
BENZ(A,H)ANTHRACENE	<768. ug/Kg	768.				
BENZO(G,H,I)PERYLENE	<768. ug/Kg	768.				
SURROGATE 2-FLUOROBIPHENYL	65.0 % Recovery					
SURROGATE O-TERPHENYL	117 % Recovery					

SAMPLE ID- #42-T1-S1
LOCATION- FT. Stewart
SAMPLE NUMBER- 7982
SAMPLE MATRIX- SOIL

DATE SAMPLED- 06/21/95
TIME SAMPLED- 1330
DATE RECEIVED- 06/23/95

TIME RECEIVED- 1140
DELIVERED BY- Greyhound
RECEIVED BY- DH
SAMPLER- Lamar L. Kennedy

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	83.4 %	0.01		07/07/95		
TOT. PET. HYDROCARBONS-OIL	517 mg/Kg	12.0	07/03/95	07/07/95	9071	
VOLATILE ORGANIC COMPOUNDS				07/04/95	8020	
BENZENE	<4.80 ug/Kg	4.80				4
TOLUENE	<4.80 ug/Kg	4.80				4
CHLOROBENZENE	<4.80 ug/Kg	4.80				4
M,P-XYLENES	29.7 ug/Kg	4.80				4
O-XYLENES	<4.80 ug/Kg	4.80				4
ETHYL BENZENE	36.1 ug/Kg	4.80				4

CONTINUATION OF DATA FOR SAMPLE NUMBER 7982

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
1,2-DICHLOROBENZENE	<4.80 ug/Kg	4.80				4
1,3-DICHLOROBENZENE	<4.80 ug/Kg	4.80				4
1,4-DICHLOROBENZENE	<4.80 ug/Kg	4.80				4
SURROGATE BROMOFLUOROBENZENE	88.2 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	98.6 % Recovery					
MTBE	<24.0 ug/Kg	24.0				4
DIPE	<24.0 ug/Kg	24.0				4
POLYNUCLEAR AROMATIC HYDROCARB			07/05/95	07/10/95	8100	
NAPHTHALENE	<1980 ug/Kg	1980				2.5
ACENAPHTHYLENE	<1980 ug/Kg	1980				2.5
ACENAPHTHENE	<1980 ug/Kg	1980				2.5
FLUORENE	<1980 ug/Kg	1980				2.5
PHENANTHRENE	<1980 ug/Kg	1980				2.5
ANTHRACENE	<1980 ug/Kg	1980				2.5
FLUORANTHENE	<1980 ug/Kg	1980				2.5
PYRENE	<1980 ug/Kg	1980				2.5
BENZO(A)ANTHRACENE	<1980 ug/Kg	1980				2.5
CHRYSENE	<1980 ug/Kg	1980				2.5
BENZO(B)FLUORANTHENE	<1980 ug/Kg	1980				2.5
BENZO(K)FLUORANTHENE	<1980 ug/Kg	1980				2.5
BENZO(A)PYRENE	<1980 ug/Kg	1980				2.5
INDENO(1,2,3-CD)PYRENE	<1980 ug/Kg	1980				2.5
DIBENZ(A,H)ANTHRACENE	<1980 ug/Kg	1980				2.5
BENZO(G,H,I)PERYLENE	<1980 ug/Kg	1980				2.5
SURROGATE 2-FLUOROBIPHENYL	44.0 % Recovery					
SURROGATE O-TERPHENYL	MASKED % Recovery					
SAMPLE ID- #42-T1-S2			TIME RECEIVED- 1140			
LOCATION- FT. Stewart			DELIVERED BY- Greyhound			
SAMPLE NUMBER- 7983			RECEIVED BY- DH			
SAMPLE MATRIX- SOIL			DATE SAMPLED- 06/21/95	DATE RECEIVED- 06/23/95	SAMPLER- Lamar L. Kennedy	

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	83.8 %	0.01		07/07/95		
TOT. PET. HYDROCARBONS-OIL	770 mg/Kg	11.9	07/03/95	07/07/95	9071	
VOLATILE ORGANIC COMPOUNDS				07/04/95	8020	
BENZENE	<4.77 ug/Kg	4.77				4
TOLUENE	<4.77 ug/Kg	4.77				4
CHLOROBENZENE	<4.77 ug/Kg	4.77				4

)

)

)

CONTINUATION OF DATA FOR SAMPLE NUMBER 7983

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
M,P-XYLENES	14.1 ug/Kg	4.77				4
O-XYLENES	<4.77 ug/Kg	4.77				4
ETHYL BENZENE	15.5 ug/Kg	4.77				4
1,2-DICHLOROBENZENE	<4.77 ug/Kg	4.77				4
1,3-DICHLOROBENZENE	10.7 ug/Kg	4.77				4
1,4-DICHLOROBENZENE	<4.77 ug/Kg	4.77				4
SURROGATE BROMOFLUOROBENZENE	98.8 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	97.2 % Recovery					
MTBE	<23.9 ug/Kg	23.9				4
DIPE	<23.9 ug/Kg	23.9				4
POLYNUCLEAR AROMATIC HYDROCARB						
			07/05/95	07/10/95	8100	
NAPHTHALENE	<788 ug/Kg	788				
ACENAPHTHYLENE	<788 ug/Kg	788				
ACENAPHTHENE	<788 ug/Kg	788				
FLUORENE	<788 ug/Kg	788				
PHENANTHRENE	<788 ug/Kg	788				
ANTHRACENE	<788 ug/Kg	788				
FLUORANTHENE	<788 ug/Kg	788				
PYRENE	<788 ug/Kg	788				
BENZO(A)ANTHRACENE	<788 ug/Kg	788				
CHRYSENE	<788 ug/Kg	788				
BENZO(B)FLUORANTHENE	<788 ug/Kg	788				
BENZO(K)FLUORANTHENE	<788 ug/Kg	788				
BENZO(A)PYRENE	<788 ug/Kg	788				
INDENO(1,2,3-CD)PYRENE	<788 ug/Kg	788				
DIBENZ(A,H)ANTHRACENE	<788 ug/Kg	788				
BENZO(G,H,I)PERYLENE	<788 ug/Kg	788				
SURROGATE 2-FLUOROBIPHENYL	15.0 % Recovery					
SURROGATE O-TERPHENYL	17.0 % Recovery					

Sample is to be reextracted for the 8100's.

SAMPLE ID- #42-N.S.W.

LOCATION- FT. Stewart

SAMPLE NUMBER- 7984

SAMPLE MATRIX- SOIL

DATE SAMPLED- 06/21/95

TIME SAMPLED- 1345

DATE RECEIVED- 06/23/95

TIME RECEIVED- 1140

DELIVERED BY- Greyhound

RECEIVED BY- DH

SAMPLER- Lamar L. Kennedy

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	99.2 %	0.01		07/07/95		

1

2

3

CONTINUATION OF DATA FOR SAMPLE NUMBER 7984

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
TOT. PET. HYDROCARBONS-OIL	55.2 mg/Kg	10.1	07/06/95	07/12/95	9071	
VOLATILE ORGANIC COMPOUNDS				07/01/95	8020	
BENZENE	<1.01 ug/Kg	1.01				
TOLUENE	<1.01 ug/Kg	1.01				
CHLOROBENZENE	<1.01 ug/Kg	1.01				
M,P-XYLENES	<1.01 ug/Kg	1.01				
O-XYLENES	<1.01 ug/Kg	1.01				
ETHYL BENZENE	<1.01 ug/Kg	1.01				
1,2-DICHLOROBENZENE	<1.01 ug/Kg	1.01				
1,3-DICHLOROBENZENE	<1.01 ug/Kg	1.01				
1,4-DICHLOROBENZENE	<1.01 ug/Kg	1.01				
SURROGATE BROMOFLUOROBENZENE	108 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	136 % Recovery					
MTBE	<5.04 ug/Kg	5.04				
DIPE	<5.04 ug/Kg	5.04				
POLYNUCLEAR AROMATIC HYDROCARB				07/05/95	07/10/95	8100
NAPHTHALENE	<1660 ug/Kg	1660				2.5
1-METHYLNAPHTHYLENE	<1660 ug/Kg	1660				2.5
2-METHYLNAPHTHENE	<1660 ug/Kg	1660				2.5
FLUORENE	<1660 ug/Kg	1660				2.5
PHENANTHRENE	<1660 ug/Kg	1660				2.5
ANTHRACENE	<1660 ug/Kg	1660				2.5
FLUORANTHENE	<1660 ug/Kg	1660				2.5
PYRENE	<1660 ug/Kg	1660				2.5
BENZO(A)ANTHRACENE	<1660 ug/Kg	1660				2.5
CHRYSENE	<1660 ug/Kg	1660				2.5
BENZO(B)FLUORANTHENE	<1660 ug/Kg	1660				2.5
BENZO(K)FLUORANTHENE	<1660 ug/Kg	1660				2.5
BENZO(A)PYRENE	<1660 ug/Kg	1660				2.5
INDENO(1,2,3-CD)PYRENE	<1660 ug/Kg	1660				2.5
DIBENZ(A,H)ANTHRACENE	<1660 ug/Kg	1660				2.5
BENZO(G,H,I)PERYLENE	<1660 ug/Kg	1660				2.5
SURROGATE 2-FLUOROBIPHENYL	93.0 % Recovery					
SURROGATE O-TERPHENYL	MASKED % Recovery					

)

)

)

SAMPLE ID- #42-S.S.W.
 LOCATION- FT. Stewart
 SAMPLE NUMBER- 7985
 SAMPLE MATRIX- SOIL

DATE SAMPLED- 06/21/95
 TIME SAMPLED- 1350
 DATE RECEIVED- 06/23/95

TIME RECEIVED- 1140
 DELIVERED BY- Greyhound
 RECEIVED BY- DH
 SAMPLER- Lamar L. Kennedy

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	DIL. FACTOR
% SOLIDS	84.6 %	0.01		07/07/95	
TOT. PET. HYDROCARBONS-OIL	172. mg/Kg	11.8	07/06/95	07/12/95	9071
VOLATILE ORGANIC COMPOUNDS				07/04/95	8020
BENZENE	<1.18 ug/Kg	1.18			
TOLUENE	<1.18 ug/Kg	1.18			
CHLOROBENZENE	<1.18 ug/Kg	1.18			
M,P-XYLENES	13.9 ug/Kg	1.18			
O-XYLENES	<1.18 ug/Kg	1.18			
ETHYL BENZENE	15.1 ug/Kg	1.18			
1,2-DICHLOROBENZENE	<1.18 ug/Kg	1.18			
1,3-DICHLOROBENZENE	<1.18 ug/Kg	1.18			
1,4-DICHLOROBENZENE	<1.18 ug/Kg	1.18			
SURROGATE BROMOFLUOROBENZENE	99.4 % Recovery				
SURROGATE aaa-TRIFLUOROTOLUENE	111 % Recovery				
BE	<5.91 ug/Kg	5.91			
PE	<5.91 ug/Kg	5.91			
POLYNUCLEAR AROMATIC HYDROCARB				07/05/95	07/10/95 8100
NAPHTHALENE	<780. ug/Kg	780.			
ACENAPHTHYLENE	<780. ug/Kg	780.			
ACENAPHTHENE	<780. ug/Kg	780.			
FLUORENE	<780. ug/Kg	780.			
PHENANTHRENE	<780. ug/Kg	780.			
ANTHRACENE	<780. ug/Kg	780.			
FLUORANTHENE	<780. ug/Kg	780.			
PYRENE	<780. ug/Kg	780.			
BENZO(A)ANTHRACENE	<780. ug/Kg	780.			
CHRYSENE	<780. ug/Kg	780.			
BENZO(B)FLUORANTHENE	<780. ug/Kg	780.			
BENZO(K)FLUORANTHENE	<780. ug/Kg	780.			
BENZO(A)PYRENE	<780. ug/Kg	780.			
INDENO(1,2,3-CD)PYRENE	<780. ug/Kg	780.			
DIBENZ(A,H)ANTHRACENE	<780. ug/Kg	780.			
BENZO(G,H,I)PERYLENE	<780. ug/Kg	780.			
SURROGATE 2-FLUOROBIPHENYL	69.0 % Recovery				
SURROGATE O-TERPHENYL	117 % Recovery				

)

)

)

SAMPLE ID- #42-W.S.W.
 LOCATION- FT. Stewart
 SAMPLE NUMBER- 7986
 SAMPLE MATRIX- SOIL

DATE SAMPLED- 06/21/95
 TIME SAMPLED- 1355
 DATE RECEIVED- 06/23/95

TIME RECEIVED- 1140
 DELIVERED BY- Greyhound
 RECEIVED BY- DH
 SAMPLER- Lamar L. Kennedy

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	86.3 %	0.01		07/07/95		
TOT. PET. HYDROCARBONS-OIL	1240 mg/Kg	11.6	07/06/95	07/12/95	9071	
VOLATILE ORGANIC COMPOUNDS				07/04/95	8020	
BENZENE	<1.16 ug/Kg	1.16				
TOLUENE	<1.16 ug/Kg	1.16				
CHLOROBENZENE	<1.16 ug/Kg	1.16				
M,P-XYLENES	18.3 ug/Kg	1.16				
O-XYLENES	<1.16 ug/Kg	1.16				
ETHYL BENZENE	<1.16 ug/Kg	1.16				
1,2-DICHLOROBENZENE	<1.16 ug/Kg	1.16				
1,3-DICHLOROBENZENE	<1.16 ug/Kg	1.16				
1,4-DICHLOROBENZENE	<1.16 ug/Kg	1.16				
SURROGATE BROMOFLUOROBENZENE	107 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	111 % Recovery					
BE	<5.79 ug/Kg	5.79				
PE	<5.79 ug/Kg	5.79				
POLYNUCLEAR AROMATIC HYDROCARB			07/05/95	07/10/95	8100	
NAPHTHALENE	<1910 ug/Kg	1910				2.5
ACENAPHTHYLENE	<1910 ug/Kg	1910				2.5
ACENAPHTHENE	<1910 ug/Kg	1910				2.5
FLUORENE	<1910 ug/Kg	1910				2.5
PHENANTHRENE	<1910 ug/Kg	1910				2.5
ANTHRACENE	<1910 ug/Kg	1910				2.5
FLUORANTHENE	<1910 ug/Kg	1910				2.5
PYRENE	<1910 ug/Kg	1910				2.5
BENZO(A)ANTHRACENE	<1910 ug/Kg	1910				2.5
CHRYSENE	<1910 ug/Kg	1910				2.5
BENZO(B)FLUORANTHENE	<1910 ug/Kg	1910				2.5
BENZO(K)FLUORANTHENE	<1910 ug/Kg	1910				2.5
BENZO(A)PYRENE	<1910 ug/Kg	1910				2.5
INDENO(1,2,3-CD)PYRENE	<1910 ug/Kg	1910				2.5
DIBENZ(A,H)ANTHRACENE	<1910 ug/Kg	1910				2.5
BENZO(G,H,I)PERYLENE	1940 ug/Kg	1910				2.5
SURROGATE 2-FLUOROBIPHENYL	70.0 % Recovery					
SURROGATE O-TERPHENYL	MASKED % Recovery					

Sample contained all other PAH's at Level 200-1430 ug/Kg, being reextracted to check results.

SAMPLE ID- #42-E.S.W.
 LOCATION- FT. Stewart
 SAMPLE NUMBER- 7987
 SAMPLE MATRIX- SOIL

DATE SAMPLED- 06/21/95
 TIME SAMPLED- 1400
 DATE RECEIVED- 06/23/95

TIME RECEIVED- 1140
 DELIVERED BY- Greyhound
 RECEIVED BY- DH
 SAMPLER- Lamar L. Kennedy

ANALYSIS	RESULT UNITS	DET. LIMIT	DATE PREPARED	DATE ANALYZED	METHOD	DIL. FACTOR
% SOLIDS	80.4 %	0.01		07/07/95		
TOT. PET. HYDROCARBONS-OIL	61.7 mg/Kg	12.4	07/06/95	07/12/95	9071	
VOLATILE ORGANIC COMPOUNDS				07/04/95	8020	
BENZENE	<1.24 ug/Kg	1.24				
TOLUENE	<1.24 ug/Kg	1.24				
CHLOROBENZENE	<1.24 ug/Kg	1.24				
M,P-XYLENES	<1.24 ug/Kg	1.24				
O-XYLENES	<1.24 ug/Kg	1.24				
ETHYL BENZENE	3.40 ug/Kg	1.24				
1,2-DICHLOROBENZENE	<1.24 ug/Kg	1.24				
1,3-DICHLOROBENZENE	<1.24 ug/Kg	1.24				
1,4-DICHLOROBENZENE	<1.24 ug/Kg	1.24				
SURROGATE BROMOFLUOROBENZENE	85.2 % Recovery					
SURROGATE aaa-TRIFLUOROTOLUENE	97.4 % Recovery					
TBE	<6.22 ug/Kg	6.22				
.PE	<6.22 ug/Kg	6.22				
POLYNUCLEAR AROMATIC HYDROCARB				07/05/95	07/10/95	8100
NAPHTHALENE	<821 ug/Kg	821				
ACENAPHTHYLENE	<821 ug/Kg	821				
ACENAPHTHENE	<821 ug/Kg	821				
FLUORENE	<821 ug/Kg	821				
PHENANTHRENE	<821 ug/Kg	821				
ANTHRACENE	<821 ug/Kg	821				
FLUORANTHENE	<821 ug/Kg	821				
PYRENE	<821 ug/Kg	821				
BENZO(A)ANTHRACENE	<821 ug/Kg	821				
CHRYSENE	<821 ug/Kg	821				
BENZO(B)FLUORANTHENE	<821 ug/Kg	821				
BENZO(K)FLUORANTHENE	<821 ug/Kg	821				
BENZO(A)PYRENE	<821 ug/Kg	821				
INDENO(1,2,3-CD)PYRENE	<821 ug/Kg	821				
DIBENZ(A,H)ANTHRACENE	<821 ug/Kg	821				
BENZO(G,H,I)PERYLENE	<821 ug/Kg	821				
SURROGATE 2-FLUOROBIPHENYL	82.0 % Recovery					
SURROGATE O-TERPHENYL	114 % Recovery					

Baseline for 8100's somewhat elevated, contributing to high recoveries of some of PAH's in MS/MSD.

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,

Page 1

Analysis	Precision Data			Accuracy Data			Ref. Sample Data					Analy. Batch Number				
	Blank Conc.	Sample Number	Sample Type	Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Add Conc.	Observed Conc.	Rec. %		Sample ID	Target Conc.	Found Conc.	Rec. %
TOT. PET.	< 10.0	7977	MSD	9.90	9.90	0.00	---	---	---	---	---	---	---	---	---	8085, 8085,
HYDROCARBONS-OIL	< 10.0	7985	MSD	159	133	17.81	---	---	---	---	---	---	---	---	---	8141, 8141,
9071	< 10.0	7985	MSD	159	133	17.81	---	---	---	---	---	---	---	---	---	8141, 8141,
mg/Kg	< 10.0	7992	MSD	1020	1050	2.90	---	---	---	---	---	---	---	---	---	8142, 8142,
	< 10.0	8000	MSD	7290	4020	57.82	---	---	---	---	---	---	---	---	---	8142, 8143,
	< 10.0	---	---	---	---	---	BS	.001	.0172	.0168	91.9	---	---	---	---	8143, 8085,
	---	---	---	---	---	---	BS	.001	.0172	.0168	91.9	---	---	---	---	8141,
	---	---	---	---	---	---	BS	.001	.0172	.0168	91.9	---	---	---	---	8141,
	---	---	---	---	---	---	BS	.0007	.0146	.0144	93.8	---	---	---	---	8142,
	---	---	---	---	---	---	BS	.0007	.0146	.0144	93.8	---	---	---	---	8143,
BENZENE	< 1	7987	MS	16.4	14.0	15.79	MS	0	20.0	16.4	82.0	---	---	---	---	8185, 8271, 8271,
8020	< 1	7987	---	---	---	---	MSD	0	20.0	14.0	70.0	---	---	---	---	8271, 8271,
ug/Kg	< 1	8143	MS	14.9	13.1	12.86	MS	0	20.0	14.9	74.5	---	---	---	---	8278, 8185, 8185,
	< 1	8143	---	---	---	---	MSD	0	20.0	13.1	65.5	---	---	---	---	8346, 8185,
	< 1	---	BS	16.9	13.3	23.84	BS	0	20.0	16.9	84.5	---	---	---	---	8347, 8185, 8185,
	---	---	BS	18.7	18.1	3.26	BSD	0	20.0	13.3	66.5	---	---	---	---	8271, 8185,
	---	---	BS	19.0	18.5	2.67	BS	0	20.0	18.7	93.5	---	---	---	---	8278, 8271,
	---	---	BS	19.4	18.0	7.49	BSD	0	20.0	18.1	90.5	---	---	---	---	8346, 8271,
	---	---	BS	17.8	17.0	4.60	BS	0	20.0	19.0	95.0	---	---	---	---	8347, 8278,
	---	---	---	---	---	---	BSD	0	20.0	18.5	92.5	---	---	---	---	8278,
	---	---	---	---	---	---	BS	0	20.0	19.4	97.0	---	---	---	---	8346,
	---	---	---	---	---	---	BS	0	20.0	17.8	89.0	---	---	---	---	8347,

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,
 Page 2

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. %
TOLUENE 8020 ug/Kg	< 1	7987	MS	16.6	14.2	15.58	MS	0	20.0	16.6	83.0				8185, 8271, 8271,
	< 1	7987					MSD	0	20.0	14.2	71.0				8271, , 8271,
	< 1	8143	MS	12.9	11.3	13.22	MS	0	20.0	12.9	64.5				8278, 8185, 8185,
	< 1	8143					MSD	0	20.0	11.3	56.5				8346, , 8185,
	< 1		BS	17.0	13.4	23.68	BS	0	20.0	17.0	85.0				8347, 8185, 8185,
			BS	19.4	18.4	5.29	BSD	0	20.0	13.4	67.0				, 8271, 8185,
			BS	19.5	19.1	2.07	BS	0	20.0	19.4	97.0				, 8278, 8271,
			BS	19.2	19.0	1.05	BSD	0	20.0	18.4	92.0				, 8346, 8271,
			BS	18.8	17.7	6.03	BS	0	20.0	19.5	97.5				, 8347, 8278,
							BSD	0	20.0	19.1	95.5				, 8278,
CHLOROBENZENE 8020 ug/Kg	< 1	7987	MS	16.4	14.4	12.99	MS	0	20.0	16.4	82.0				8185, 8271, 8271,
	< 1	7987					MSD	0	20.0	14.4	72.0				8271, , 8271,
	< 1	8143	MS	14.6	14.8	1.36	MS	0	20.0	14.6	73.0				8278, 8185, 8185,
	< 1	8143					MSD	0	20.0	14.8	74.0				8346, , 8185,
	< 1		BS	19.7	15.7	22.60	BS	0	20.0	19.7	98.5				8347, 8185, 8185,
			BS	19.4	18.4	5.29	BSD	0	20.0	15.7	78.5				, 8271, 8185,
			BS	19.5	19.0	2.60	BS	0	20.0	19.4	97.0				, 8278, 8271,
			BS	19.3	19.1	1.04	BSD	0	20.0	18.4	92.0				, 8346, 8271,
			BS	18.9	18.1	4.32	BS	0	20.0	19.5	97.5				, 8347, 8278,
							BSD	0	20.0	19.0	95.0				, 8278,
						BS	0	20.0	19.3	96.5				, 8346,	

1

2

3

Analysis	Precision Data			Accuracy Data			Ref. Sample Data									
	Blank Conc.	Sample Number	Samp Type	Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.	Found Conc.	Rec. %	Analy. Batch Number
M,P-XYLENES 8020 ug/Kg							BS	0	20.0	18.9	94.5					, 8347,
	< 1	7987	MS	33.9	29.2	14.90 MS		0	40.0	33.9	84.7					8185, 8271, 8271,
	< 1	7987					MSD	0	40.0	29.2	73.0					8271, , 8271,
	< 1	8143	MS	17.6	15.7	11.41 MS		0	40.0	17.6	44.0					8278, 8185, 8185,
	< 1	8143					MSD	0	40.0	15.7	39.2					8346, , 8185,
	< 1		BS	34.3	27.1	23.45 BS		0	40.0	34.3	85.8					8347, 8185, 8185,
			BS	39.7	38.5	3.07 BSD		0	40.0	27.1	67.8					, 8271, 8185,
			BS	41.3	39.5	4.46 BS		0	40.0	39.7	99.3					, 8278, 8271,
			BS	39.4	38.5	2.31 BSD		0	20.0	38.5	192.5					, 8346, 8271,
			BS	39.1	36.9	5.79 BS		0	40.0	41.3	103.3					, 8347, 8278,
O-XYLENES 8020 ug/Kg							BSD	0	40.0	39.5	98.8					, 8278,
							BS	0	40.0	39.4	98.5					, 8346,
							BS	0	40.0	39.1	97.8					, 8347,
	< 1	7987	MS	14.2	11.5	21.01 MS		0	20.0	14.2	71.0					8185, 8271, 8271,
	< 1	7987					MSD	0	20.0	11.5	57.5					8271, , 8271,
	< 1	8143	MS	14.8	12.7	15.27 MS		0	20.0	14.8	74.0					8278, 8185, 8185,
	< 1	8143					MSD	0	20.0	12.7	63.5					8346, , 8185,
	< 1		BS	17.6	14.3	20.69 BS		0	20.0	17.6	88.0					8347, 8185, 8185,
			BS	17.5	16.7	4.68 BSD		0	20.0	14.3	71.5					, 8271, 8185,
			BS	17.8	16.4	8.19 BS		0	20.0	17.5	87.5					, 8278, 8271,
		BS	24.5	23.6	3.74 BSD		0	20.0	16.7	83.5					, 8346, 8271,	
		BS	16.5	16.0	3.08 BS		0	20.0	17.8	89.0					, 8347, 8278,	

)

)

)

)

)

)

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,
Page 5

Analysis	Blank Conc.	Sample Number	Samp 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. %
1,3-DICHLOROBENZEN E 8020 g/Kg	< 1	7987	BS	21.3	20.5	3.83	BSD	0	20.0	19.4	97.0					8346, 8271,
	< 1	7987	BS	19.5	18.6	4.72	BS	0	20.0	20.0	100.0					8347, 8278,
	< 1						BSD	0	20.0	19.4	97.0					, 8278,
	< 1						BS	0	20.0	21.3	106.5					, 8346,
	< 1						BS	0	20.0	19.5	97.5					, 8347,
	< 1	7987	MS	16.8	15.6	7.41	MS	0	20.0	16.8	84.0					8185, 8271, 8271,
	< 1	7987					MSD	0	20.0	15.6	78.0					8271, , 8271,
	< 1	8143	MS	16.5	14.5	12.90	MS	0	20.0	16.5	82.5					8278, 8185, 8185,
	< 1	8143					MSD	0	20.0	14.5	72.5					8346, , 8185,
	< 1		BS	19.1	15.9	18.29	BS	0	20.0	19.1	95.5					8347, 8185, 8185,
		BS	20.4	19.3	5.54	BSD	0	20.0	15.9	79.5					, 8271, 8185,	
		BS	20.3	19.9	1.99	BS	0	20.0	20.4	102.0					, 8278, 8271,	
		BS	21.0	19.8	5.88	BSD	0	20.0	19.3	96.5					, 8346, 8271,	
		BS	19.5	19.1	2.07	BS	0	20.0	20.3	101.5					, 8347, 8278,	
						BSD	0	20.0	19.9	99.5					, 8278,	
						BS	0	20.0	21.0	105.0					, 8346,	
						BS	0	20.0	19.5	97.5					, 8347,	
1,4-DICHLOROBENZEN E 8020 ug/Kg	< 1	7987	MS	14.8	13.9	6.27	MS	0	20.0	14.8	74.0					8185, 8271, 8271,
	< 1	7987					MSD	0	20.0	13.9	69.5					8271, , 8271,
	< 1	8143	MS	14.6	14.5	0.69	MS	0	20.0	14.6	73.0					8278, 8185, 8185,
	< 1	8143					MSD	0	20.0	14.5	72.5					8346, , 8185,
	< 1		BS	19.4	15.7	21.08	BS	0	20.0	19.4	97.0					8347, 8185, 8185,

)

)

)

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,
Page 6

Analysis	Blank Conc.	Sample Number	Samp 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. %
			BS	19.2	18.4	4.26	BSD	0	20.0	15.7	78.5					8271, 8185,
			BS	19.2	18.9	1.57	BS	0	20.0	19.2	96.0					8278, 8271,
			BS	20.3	20.7	1.95	BSD	0	20.0	18.4	92.0					8346, 8271,
			BS	18.7	18.0	3.81	BS	0	20.0	19.2	96.0					8347, 8278,
							BSD	0	20.0	18.9	94.5					8278,
							BS	0	20.0	20.3	101.5					8346,
							BS	0	20.0	18.7	93.5					8347,
SURROGATE		7987					MS	0	50.0	49.1	98.2					8271,
ROMOFLUOROBENZENE		7987					MSD	0	50.0	59.5	119.0					8271,
8020		8143					MS	0	50.0	35.2	70.4					8185,
% Recovery		8143					MSD	0	50.0	25.3	50.6					8185,
							BLK	0	50.0	63.3	126.6					8185,
							BS	0	50.0	63.2	126.4					8185,
							BSD	0	50.0	47.0	94.0					8185,
							BLK	0	50.0	66.4	132.8					8271,
							BS	0	50.0	68.1	136.2					8271,
							BSD	0	50.0	60.6	121.2					8271,
							BLK	0	50.0	67.5	135.0					8278,
							BS	0	50.0	61.1	122.2					8278,
							BSD	0	50.0	67.0	134.0					8278,
							B	0	50.0	72.0	144.0					8346,
							BS	0	50.0	60.0	120.0					8346,
							B	0	50.0	60.4	120.8					8347,

)

)

)

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,
 Page 7

Analysis	Blank Conc.	Sample Number	Samp 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 aaa-TRIF LUOROTOLUENE 8020 % Recovery							BS	0	50.0	56.0	112.0					8347,
		7987					MS	0	50.0	46.6	93.2					8271,
		7987					MSD	0	50.0	45.7	91.4					8271,
		8143					MS	0	50.0	44.2	88.4					8185,
		8143					MSD	0	50.0	41.2	82.4					8185,
							BLK	0	50.0	56.1	112.2					8185,
							BS	0	50.0	54.2	108.4					8185,
							BSD	0	50.0	44.3	88.6					8185,
							BLK	0	50.0	61.1	122.2					8271,
							BS	0	50.0	59.4	118.8					8271,
							BSD	0	50.0	57.0	114.0					8271,
							BLK	0	50.0	60.5	121.0					8278,
						BS	0	50.0	57.0	114.0					8278,	
						BSD	0	50.0	58.5	117.0					8278,	
						B	0	50.0	64.5	129.0					8346,	
						BS	0	50.0	58.0	116.0					8346,	
						B	0	50.0	55.2	110.4					8347,	
						BS	0	50.0	53.0	106.0					8347,	

1

2

3

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,
Page 8

Analysis	Blank			Precision Data			Accuracy Data			Ref. Sample Data					Analy. Batch Number	
	Conc.	Sample Number	Samp Type	Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.	Found Conc.		Rec. %
MTBE 8020 ug/Kg	< 5	-----	BS	17.1	15.7	8.54	BS	0	20.0	17.1	85.5	-----	-----	-----	-----	8185, 8185, 8185,
	< 5	-----	BS	17.4	19.0	8.79	BSD	0	20.0	15.7	78.5	-----	-----	-----	-----	8271, 8271, 8185,
	< 5	-----	BS	20.1	18.9	6.15	BS	0	20.0	17.4	87.0	-----	-----	-----	-----	8278, 8278, 8271,
	< 5	-----	BS	19.7	19.8	0.51	BSD	0	20.0	19.0	95.0	-----	-----	-----	-----	8346, 8346, 8271,
	< 5	-----	BS	18.5	17.9	3.30	BS	0	20.0	20.1	100.5	-----	-----	-----	-----	8347, 8347, 8278,
IPE 8020 ug/Kg	-----	-----	-----	-----	-----	-----	BSD	0	20.0	18.9	94.5	-----	-----	-----	-----	, 8278,
	-----	-----	-----	-----	-----	-----	BS	0	20.0	19.7	98.5	-----	-----	-----	-----	, 8346,
	-----	-----	-----	-----	-----	-----	BS	0	20.0	18.5	92.5	-----	-----	-----	-----	, 8347,
	< 5	-----	BS	20.8	17.2	18.95	BS	0	20.0	20.8	104.0	-----	-----	-----	-----	8185, 8185, 8185,
	< 5	-----	BS	19.2	18.4	4.26	BSD	0	20.0	17.2	86.0	-----	-----	-----	-----	8271, 8271, 8185,
NAPHTHALENE 8100 ug/Kg	< 5	-----	BS	19.0	18.8	1.06	BS	0	20.0	18.6	93.0	-----	-----	-----	-----	8278, 8278, 8271,
	< 5	-----	BS	24.0	20.3	16.70	BSD	0	20.0	18.9	94.5	-----	-----	-----	-----	8346, 8346, 8271,
	< 5	-----	BS	17.6	18.2	3.35	BS	0	20.0	19.0	95.0	-----	-----	-----	-----	8347, 8347, 8278,
	-----	-----	-----	-----	-----	-----	BSD	0	20.0	18.8	94.0	-----	-----	-----	-----	, 8278,
	-----	-----	-----	-----	-----	-----	BS	0	20.0	24.0	120.0	-----	-----	-----	-----	, 8346,
NAPHTHALENE 8100 ug/Kg	-----	-----	-----	-----	-----	-----	BS	0	20.0	17.6	88.0	-----	-----	-----	-----	, 8347,
	< 660	7936	MS	1320	1240	6.25	MS	0	2030	1320	65.0	-----	-----	-----	-----	8288, 8288, 8288,
	< 660	7936	-----	-----	-----	-----	MSD	0	2030	1240	61.1	-----	-----	-----	-----	8358, , 8288,
	< 660	7939	LD	< 660	< 660	0.00	-----	-----	-----	-----	-----	-----	-----	-----	-----	8359, 8288, ,
	-----	7987	MS	2000	2010	0.50	MS	0	2070	2000	96.6	-----	-----	-----	-----	, 8358, 8358,
NAPHTHALENE 8100 ug/Kg	-----	7987	-----	-----	-----	-----	MSD	0	2070	2010	97.1	-----	-----	-----	-----	, 8358,
	-----	7996	LD	< 660	< 660	0.00	-----	-----	-----	-----	-----	-----	-----	-----	-----	, 8358, ,

)

)

)

)

)

)

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005.

Page 10

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. %	
ACENAPHTHENE 8100 ug/Kg	< 660	7936	MS	1400	1340	4.38	MS	0	50.0	38.2	76.4				8359,
							BSD								
	< 660	7936		1400			MS	0	2030	1400	69.0				8288, 8288, 8288,
	< 660	7939	LD	< 660	< 660	0.00			2030	1340	66.0				8358, , 8288,
		7987	MS	1900	1990	4.63	MS	0	2070	1900	91.8				8359, 8288, ,
		7987					MSD	0	2070	1990	96.1				8358, 8358,
		7996	LD	< 660	< 660	0.00									8358,
		8004	MS	1450	1470	1.37	MS	0	1750	1450	82.9				8358, ,
		8004					MSD	0	1750	1470	84.0				8359, 8359,
		8054	LD	< 660	< 660	0.00									8359,
FLUORENE 8100 ug/Kg			BS	25.4	33.6	27.80	BS	0	50.0	25.4	50.8				8359, ,
			BS	36.5	32.0	13.14	BSD	0	50.0	33.6	67.2				8288, 8288,
			BS	38.2	37.9	0.79	BS	0	50.0	36.5	73.0				8358, 8288,
							BSD	0	50.0	32.0	64.0				8359, 8358,
							BS	0	50.0	38.2	76.4				8358,
							BSD	0	50.0	37.9	75.8				8359,
															8359,
	< 660	7936	MS	1570	1600	1.89	MS	0	2030	1570	77.3				8288, 8288, 8288,
	< 660	7936					MSD	0	2030	1600	78.8				8358, , 8288,
	< 660	7939	LD	< 660	< 660	0.00									8359, 8288, ,
	7987	MS	2770	2970	6.97	MS	0	2070	2770	133.8				8358, 8358,	
	7987					MSD	0	2070	2970	143.5				8358, 8358,	
	7996	LD	< 660	< 660	0.00									8358,	

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,

Page 11

Analysis	Precision Data				Accuracy Data				Ref. Sample Data				Analy. Batch Number	
	Blank Conc.	Sample Number	Rep A	Rep B	RPD %	Samp Type	Raw Spk Conc.	Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.		Found Conc. %
PHENANTHRENE 8100 ug/Kg	< 660	7936	MS	1550	1430	8.05	MS	0	1750	1550	88.6			8359, 8359,
	< 660	7936					MSD	0	1750	1430	81.7			, 8359,
	< 660	7939	LD	< 660	< 660	0.00								8359,
		7987	MS	2080	2300	10.05	MS	0	2070	2080	100.5			8288, 8288, 8288,
		7987					MSD	0	2070	2300	111.1			8358, 8288,
		7996	LD	< 660	< 660	0.00								8359, 8288,
		8004	MS	1380	1440	4.26	MS	0	1750	1380	78.9			8358, 8358,
		8004					MSD	0	1750	1440	82.3			, 8358,
		8054	LD	< 660	< 660	0.00								8358,
			BS	33.2	40.2	19.07	BS	0	50.0	33.2	66.4			8359, 8359,
			BS	40.3	34.3	16.09	BSD	0	50.0	40.2	80.4			8359,
			BS	38.6	40.8	5.54	BS	0	50.0	40.3	80.6			8288, 8288,
						BSD	0	50.0	34.3	68.6			8358, 8288,	
						BS	0	50.0	38.6	77.2			8359, 8358,	
													, 8358,	
													, 8359,	
													, 8359,	

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,

Page 12

Analysis	Precision Data				Accuracy Data				Ref. Sample Data				Analy. Batch Number	
	Blank Conc.	Sample Type	Rep A	Rep B	RPD %	Samp Type	Raw Spk Conc.	Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.		Found Conc.
ANTHRACENE 8100 ug/Kg	-----	-----	-----	-----	-----	-----	BSD	0	50.0	40.8	81.6	-----	-----	-----, 8359,
	< 660	7936 MS	1490	1570	5.23	MS		0	2030	1490	73.4	-----	-----	8288, 8288, 8288,
	< 660	7936	-----	-----	-----	MSD		0	2030	1570	77.3	-----	-----	8358, , 8288,
	< 660	7939 LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	8359, 8288,,
	-----	7987 MS	2080	2300	10.05	MS		0	2070	2080	100.5	-----	-----	8358, 8358,,
	-----	7987	-----	-----	-----	MSD		0	2070	2300	111.1	-----	-----	8358, 8358,,
	-----	7996 LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	8358,,
	-----	8004 MS	1380	1440	4.26	MS		0	1750	1380	78.9	-----	-----	8358, ,
	-----	8004	-----	-----	-----	MSD		0	1750	1440	82.3	-----	-----	8359, 8359,,
	-----	8054 LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---
FLUORANTHENE 8100 ug/Kg	-----	-----	-----	-----	-----	-----	BS	0	50.0	33.2	66.4	-----	-----	8288, 8288,,
	-----	BS	33.2	40.2	19.07	BS		0	50.0	40.2	80.4	-----	-----	8358, 8288,,
	-----	BS	40.3	34.3	16.09	BSD		0	50.0	40.3	80.6	-----	-----	8359, 8358,,
	-----	BS	38.6	40.8	5.54	BS		0	50.0	34.3	68.6	-----	-----	8358,,
	-----	-----	-----	-----	-----	BS		0	50.0	38.6	77.2	-----	-----	8359,,
	-----	-----	-----	-----	-----	BS		0	50.0	40.8	81.6	-----	-----	8359,,
	-----	7936 MS	1800	1940	7.49	MS		0	2030	1800	88.7	-----	-----	8288, 8288, 8288,,
	< 660	7936	-----	-----	-----	MSD		0	2030	1940	95.6	-----	-----	8358, , 8288,
	< 660	7939 LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	8359, 8288,,
	-----	7987 MS	2460	2500	1.61	MS		0	2070	2460	118.8	-----	-----	8358, 8358,,
-----	7987	-----	-----	-----	MSD		0	2070	2500	120.8	-----	-----	8358, 8358,,	
-----	7996 LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---	8358,,

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,

Page 13

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.	Rec. %	
PYRENE 100 ug/Kg	< 660	8054	LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---	---	8359, ,
	< 660	---	BS	39.6	47.8	18.76	BS	0	50.0	39.6	79.2	---	---	---	---	---	8288, 8288, ,
	< 660	---	BS	48.1	41.3	15.21	BSD	0	50.0	47.8	95.6	---	---	---	---	---	8358, 8288, ,
	< 660	---	BS	43.5	47.4	8.58	BS	0	50.0	48.1	96.2	---	---	---	---	---	8359, 8358, ,
	< 660	---	---	---	---	---	BSD	0	50.0	41.3	82.6	---	---	---	---	---	8358, ,
	< 660	---	---	---	---	---	BS	0	50.0	43.5	87.0	---	---	---	---	---	8359, ,
	< 660	---	---	---	---	---	BSD	0	50.0	47.4	94.8	---	---	---	---	---	8359, ,
	< 660	7936	MS	1680	1960	15.38	MS	0	2030	1680	82.8	---	---	---	---	---	8288, 8288, 8288, ,
	< 660	7936	---	---	---	---	MSD	0	2030	1960	96.6	---	---	---	---	---	8358, , 8288, ,
	< 660	7939	LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---	---	8359, 8288, ,
< 660	7987	MS	3620	3540	2.23	MS	0	2070	3620	174.9	---	---	---	---	---	8358, 8358, ,	
< 660	7987	---	---	---	---	MSD	0	2070	3540	171.0	---	---	---	---	---	8358, ,	
< 660	7996	LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---	---	8358, ,	
< 660	8054	LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---	---	8358, ,	
< 660	---	BS	38.1	46.9	20.71	BS	0	50.0	38.1	76.2	---	---	---	---	---	8359, ,	
< 660	---	BS	48.8	42.3	14.27	BSD	0	50.0	46.9	93.8	---	---	---	---	---	8288, 8288, ,	
< 660	---	BS	43.9	46.6	5.97	BS	0	50.0	48.8	97.6	---	---	---	---	---	8358, 8288, ,	
< 660	---	---	---	---	---	BSD	0	50.0	42.3	84.6	---	---	---	---	---	8359, 8358, ,	
< 660	---	---	---	---	---	BS	0	50.0	43.9	87.8	---	---	---	---	---	8358, ,	
< 660	---	---	---	---	---	BSD	0	50.0	46.6	93.2	---	---	---	---	---	8359, ,	

)

)

)

Analysis	Precision Data			Accuracy Data			Ref. Sample Data					Analy. Batch Number				
	Blank Conc.	Sample Number	Samp Type	Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Add Conc.	Observed Conc.	Rec. %		Sample ID	Target Conc.	Found Conc.	Rec. %
BENZO(A)PYRENE .100 ug/Kg	< 660	8054	LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---	8359, ,
	< 660	---	BS	38.2	46.5	19.60	BS	0	50.0	38.2	76.4	---	---	---	---	8288, 8288, ,
	< 660	---	BS	43.8	37.0	16.83	BSD	0	50.0	46.5	93.0	---	---	---	---	8358, 8288, ,
	< 660	---	BS	41.6	44.9	7.63	BS	0	50.0	43.8	87.6	---	---	---	---	8359, 8358, ,
	< 660	---	---	---	---	---	BSD	0	50.0	37.0	74.0	---	---	---	---	8358, ,
	< 660	---	---	---	---	---	BS	0	50.0	41.6	83.2	---	---	---	---	8359, ,
	< 660	---	---	---	---	---	BSD	0	50.0	44.9	89.8	---	---	---	---	8359, ,
	< 660	7936	MS	2440	1820	29.11	MS	0	2030	2440	120.2	---	---	---	---	8288, 8288, 8288, ,
	< 660	7936	---	---	---	---	MSD	0	2030	1820	89.7	---	---	---	---	8358, , 8288, ,
	< 660	7939	LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---	8359, 8288, ,
	< 660	7987	MS	3230	3150	2.51	MS	0	2070	3230	156.0	---	---	---	---	8358, 8358, ,
	< 660	7987	---	---	---	---	MSD	0	2070	3150	152.2	---	---	---	---	8358, , 8358, ,
< 660	7996	LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---	8358, ,	
< 660	8054	LD	< 660	< 660	0.00	---	---	---	---	---	---	---	---	---	8359, ,	
< 660	---	BS	39.3	64.0	47.82	BS	0	50.0	39.3	78.6	---	---	---	---	8288, 8288, ,	
< 660	---	BS	44.9	39.0	14.06	BSD	0	50.0	64.0	128.0	---	---	---	---	8358, 8288, ,	
< 660	---	BS	50.5	54.9	8.35	BS	0	50.0	44.9	89.8	---	---	---	---	8359, 8358, ,	
< 660	---	---	---	---	---	BSD	0	50.0	39.0	78.0	---	---	---	---	8358, ,	
< 660	---	---	---	---	---	BS	0	50.0	50.5	101.0	---	---	---	---	8359, ,	
< 660	---	---	---	---	---	BSD	0	50.0	54.9	109.8	---	---	---	---	8359, ,	

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,
 Page 17

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 Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.		Found Conc.
INDENO(1,2,3-CD)PY RENE 8100 ug/Kg	< 660	7936	MS	2070	1840	11.76	MS	0	2030	2070	102.0			8288, 8288, 8288,
	< 660	7936					MSD	0	2030	1840	90.6			8358, , 8288,
	< 660	7939	LD	< 660	< 660	0.00								8359, 8288, ,
		7987	MS	1990	2170	8.65	MS	0	2070	1990	96.1			, 8358, 8358,
		7987					MSD	0	2070	2170	104.8			, , 8358,
		7996	LD	< 660	< 660	0.00								, 8358, ,
		8054	LD	< 660	< 660	0.00								, 8359, ,
			BS	38.5	46.8	19.46	BS	0	50.0	38.5	77.0			, 8288, 8288,
			BS	35.8	29.2	20.31	BSD	0	50.0	46.8	93.6			, 8358, 8288,
			BS	36.9	39.6	7.06	BS	0	50.0	35.8	71.6			, 8359, 8358,
						BSD	0	50.0	29.2	58.4			, , 8358,	
						BS	0	50.0	36.9	73.8			, , 8359,	
						BSD	0	50.0	39.6	79.2			, , 8359,	
DIBENZ(A,H)ANTHRAC ENE 8100 ug/Kg	< 660	7936	MS	2070	1840	11.76	MS	0	2030	2070	102.0			8288, 8288, 8288,
	< 660	7936					MSD	0	2030	1840	90.6			8358, , 8288,
	< 660	7939	LD	< 660	< 660	0.00								8359, 8288, ,
		7987	MS	1990	2170	8.65	MS	0	2070	1990	96.1			, 8358, 8358,
		7987					MSD	0	2070	2170	104.8			, , 8358,
		7996	LD	< 660	< 660	0.00								, 8358, ,
		8054	LD	< 660	< 660	0.00								, 8359, ,
			BS	38.5	46.8	19.46	BS	0	50.0	38.5	77.0			, 8288, 8288,
			BS	35.8	29.2	20.31	BSD	0	50.0	46.8	93.6			, 8358, 8288,
			BS	36.9	39.6	7.06	BS	0	50.0	35.8	71.6			, 8359, 8358,

[illegible]

JAMES H. CARR & ASSOCIATES, INC.

Environmental Services

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,
 Page 19

Analysis	Precision Data				Accuracy Data				Ref. Sample Data				Analy. Batch Number					
	Blank Conc.	Sample Type	Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Samp Conc.	Spk Add Conc.	Observed Conc.	Rec. %	Sample ID		Target Conc.	Found Conc.	Rec. %		
SURROGATE O-TERPHENYL 8100 % Recovery		8004							0	50.0	59.0	118.0					8359,	
				55.0	72.0	26.77	BS	0	100	55.0	55.0	55.0					8288, 8288,	
							BSD	0	100	72.0	72.0	72.0					8288,	
							B	0	50.0	37.0	74.0	74.0					8358,	
							BS	0	50.0	39.5	79.0	79.0					8358,	
							BSD	0	50.0	35.5	71.0	71.0					8358,	
							BS	0	50.0	45.3	90.6	90.6					8359,	
							BSD	0	50.0	42.8	85.6	85.6					8359,	
							B	0	50.0	46.0	92.0	92.0					8359,	
		90.0	7936	MS	91.0	99.0	8.42	MS	0	100	91.0	91.0	91.0					8288, 8288, 8288,
			7936					MSD	0	100	99.0	99.0	99.0					8288,
			7939	LD	94.0	84.0	11.24											8288,
		7987					MS	0	50.0	59.6	119.2						8358,	
		7987					MSD	0	50.0	80.7	161.4						8358,	
		8004					MS	0	50.0	58.0	116.0						8359,	
		8004					MSD	0	50.0	52.7	105.4						8359,	
			BS	86.0	97.0	12.02	BS	0	100	86.0	86.0	86.0					8288, 8288,	
							BSD	0	100	97.0	97.0	97.0					8288,	
							B	0	50.0	41.8	83.6						8358,	
							BS	0	50.0	54.1	108.2						8358,	
							BSD	0	50.0	43.3	86.6						8358,	
							BS	0	50.0	50.3	100.6						8359,	
							BSD	0	50.0	51.0	102.0						8359,	

QC REPORT FOR ANDERSON COLUMBIA ENVIRON., INC 07/21/95

QA/QC for SAMPLE Nos: 7976, 7977, 7978, 7979, 7980, 7981, 7982, 7983, 7984, 7985, 7986, 7987, 7988, 7989, 7990, 7991, 7992, 7993, 7994, 7995, 7996, 7997, 7998, 7999, 8000, 8001, 8002, 8003, 8004, 8005,

Page 20

Page 20

Analysis	Precision Data						Accuracy Data				Ref. Sample Data				Analyt. Batch Number	
	Blank Conc.	Sample Number	Samp Type	Rep A	Rep B	RPD %	Samp Type	Raw Conc.	Spk Add Conc.	Observed Conc.	Rec. %	Sample ID	Target Conc.	Found Conc.		Rec. %
							B	0	50.0	51.6	103.2					8359,

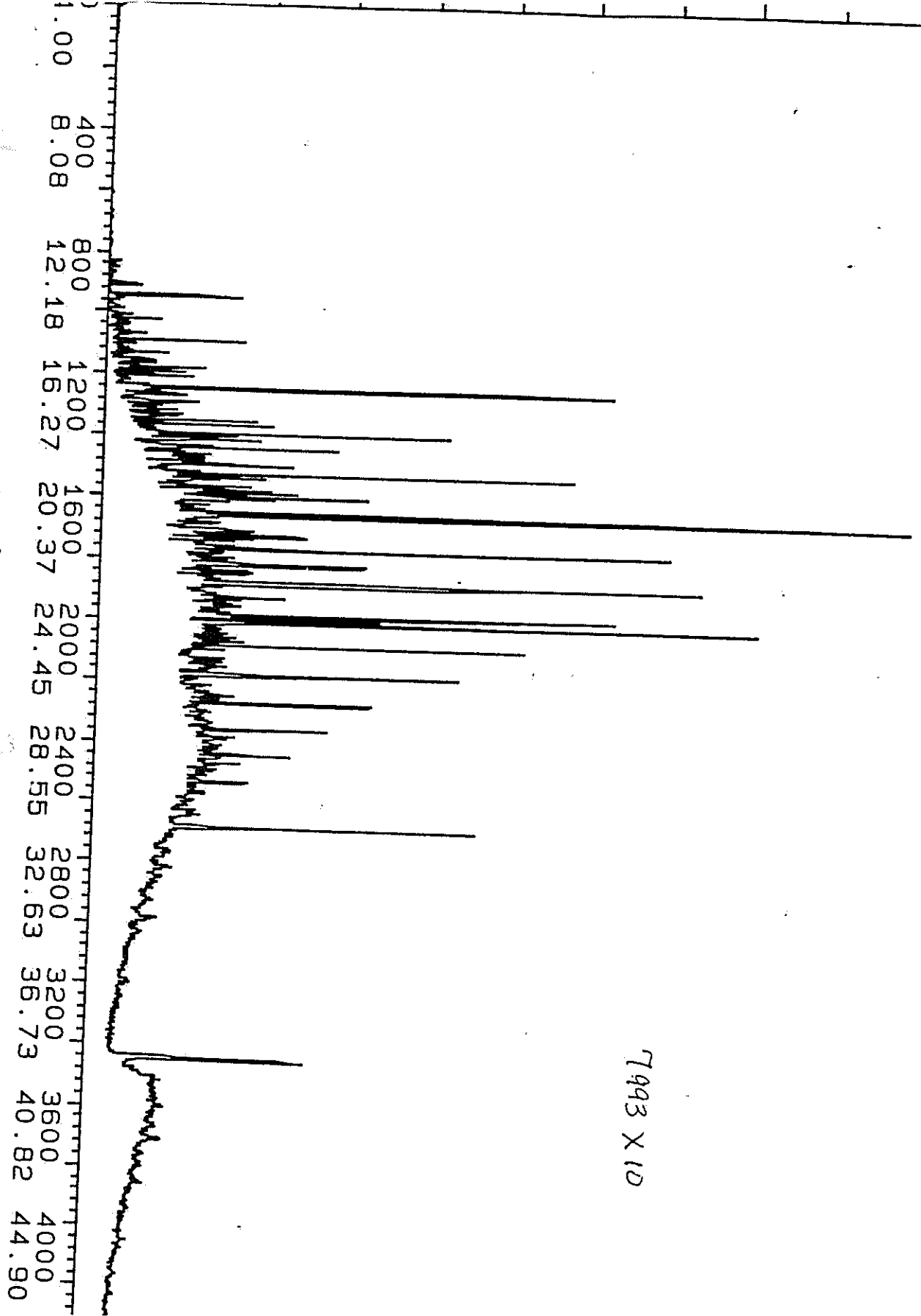
CASE NARRATIVE FOR FORT STEWART 8100 PABS

Samples 7976-8005: Many of these samples contained high concentrations of mid-range boiling hydrocarbons, making it necessary to use dilutions for both analysts by GC and confirmation by GC/MS. The GC/MS confirmations were done at the highest concentration possible in order to attempt to keep reasonable detection limits. Representative GC/MS chromatograms are attached.

SY0: 2SV071813
19-JUL-95 03: 43: 14
Total Ion Current
Quad 1 scanning mode

100%
129604

7993 X 10



1

2

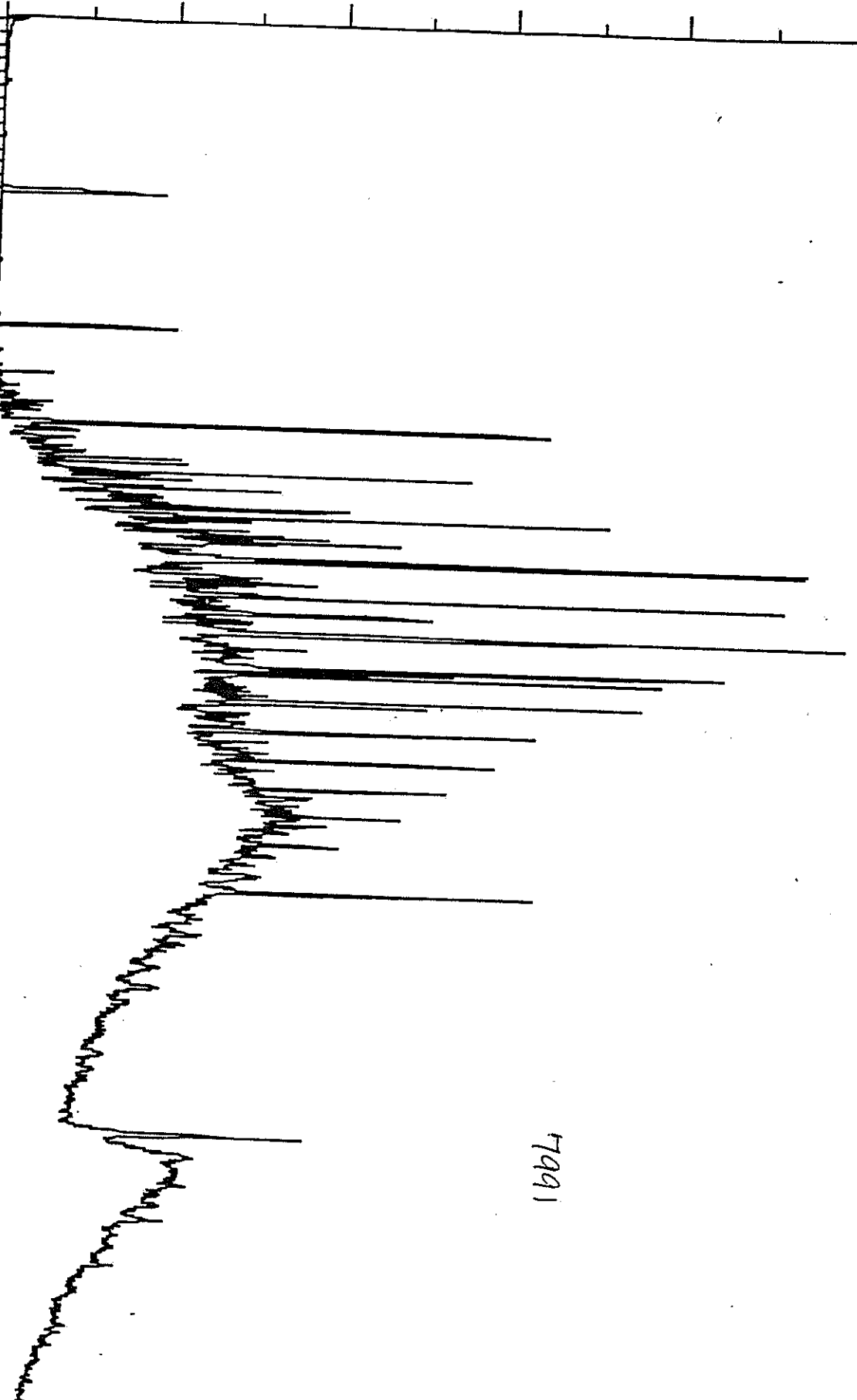
3

SY0: 2SV071809
18-JUL-95 23:04:31
Total Ion Current
Quad 1 scanning mode

100%
129912

7991

0 4.00 8.00 12.00 16.00 20.00 24.00 28.00 32.00 36.00 40.00 44.92



Ft. Stewart 06-23

ENVIRONMENTAL, INC.

CRIOZEN Y (Q)SIT): JO CIVIL:

44

2017.10.17

[illegible]

2

3

4

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 this project support the claim that soil was NOT excavated at these sites.

NOTE: All contaminated soil removed during the **entire** project (i.e., all 52 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.

THE HISTORY OF THE

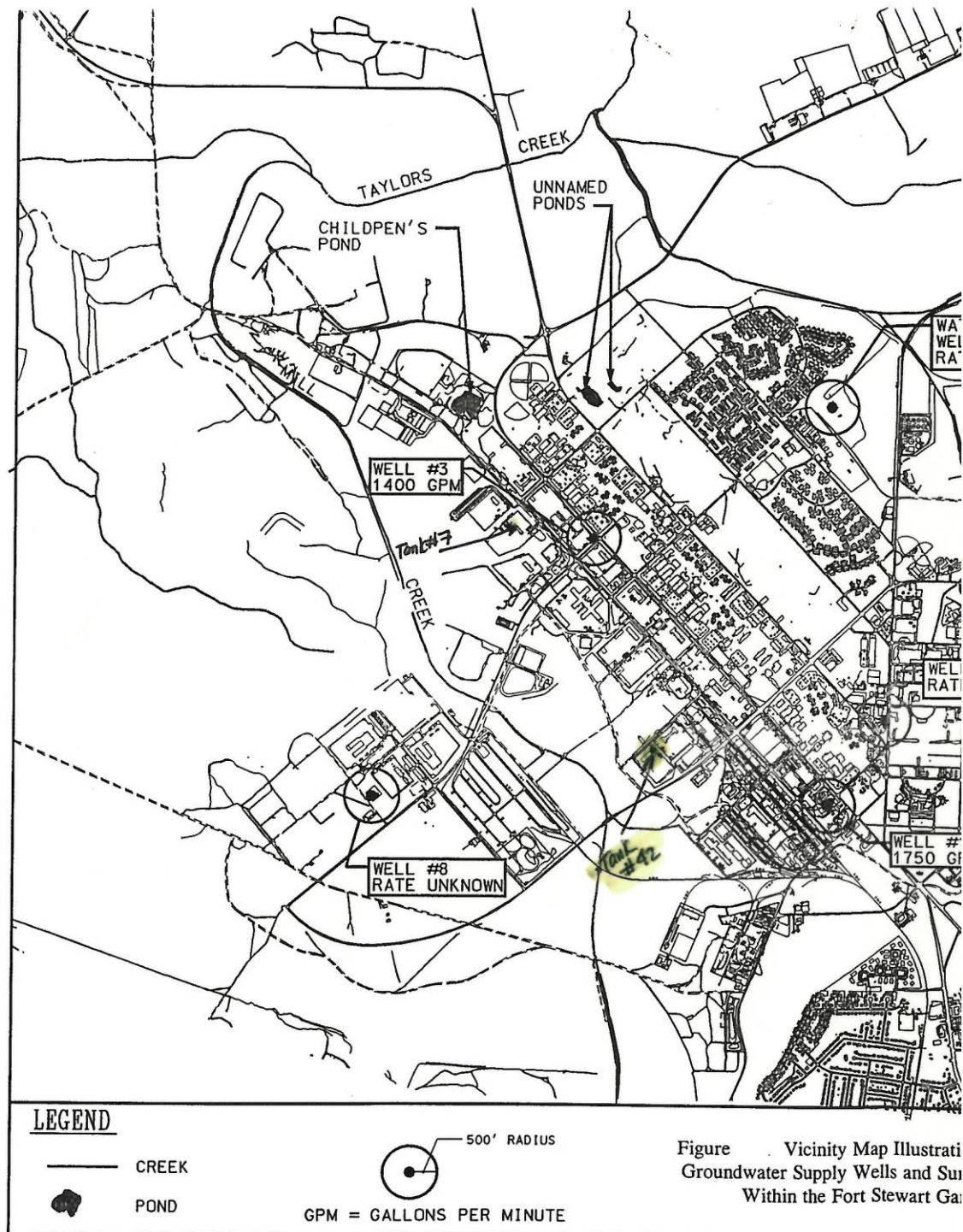


Figure Vicinity Map Illustrating Groundwater Supply Wells and Surface Water Features Within the Fort Stewart Gas Plant Area

.....

مر

.....

.....
.....
.....