

N00213.AR.000599
NAS KEY WEST
5090.3a

TANK CLOSURE ASSESSMENT REPORT FOR TRUMAN ANNEX UNDERGROUND
STORAGE TANK 5 NAS KEY WEST FL
10/1/2003
CH2M HILL

**Tank Closure Assessment Report
Truman Annex UST 5
Naval Air Station Key West
Key West, Florida**

Revision No. 00

**Contract No. N62467-01-D-0331
Contract Task Order No. 0008**

Submitted to:

**U.S. Naval Facilities
Engineering Command
Southern Division**

Prepared by:



115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA 30346

October 2003

Contents

Acronyms	iv
Executive Summary	ES-1
1.0 Introduction	1-1
1.1 Site Description.....	1-1
2.0 Analytical Results	2-1
3.0 Information Related to the Truman Annex UST 5 Closure	3-1
3.1 Tank Closure	3-1
3.2 Waste Removal and Disposal	3-1
4.0 Tank Closure Procedures	4-1
4.1 Closure of Truman Annex UST 5	4-1
4.2 UST Closure Screening and Sampling.....	4-1
4.2.1 UST Soil Screening	4-1
4.2.2 UST Soil Confirmation Sampling	4-2
4.2.3 UST Groundwater Sampling	4-3
5.0 Tank Registration and Discharge Reporting Form	5-1
6.0 References	6-1

Tables

1-1 Chronology of Events	1-1
2-1 Summary of Soil Screening Results	2-2
2-2 Summary of Groundwater Analytical Results	2-3
2-3 Summary of Soil Analytical Results	2-4

Figures

1-1 Site Location Map.....	1-2
1-2 Final Site Conditions	1-3

Appendices

A Analytical Reports	
B Waste Disposal Information	
C FDEP Forms	

Acronyms and Abbreviations List

°F	degrees Fahrenheit
bls	below land surface
BRAC	Base Realignment and Closure
CCI	CH2M HILL Constructors, Inc.
CTO	Contract Task Order
DO	dissolved oxygen
ERS	Environmental Remediation Services, Inc.
FID	flame ioniation detector
IDW	investigation derived waste
IWS	Industrial Waste Services
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
ORP	Oxygen reduction potential
ppm	parts per million
T&D	transportation and disposal
TRPH	total recoverable petroleum hydrocarbon
UST	underground storage tank

Executive Summary

During the construction of a new fence between Navy property at Truman Annex and the recently Base Realignment and Closure (BRAC)-transferred harbor area property, an unknown underground storage tank (UST 5) was uncovered during installation of the new fence footings. As a result, CH2M HILL Constructors Inc. was tasked to provide services to close the underground storage tank in accordance with the State of Florida regulatory requirements 62-770.

This report documents the activities performed at the site and provides the required information described in *Storage Tank System Closure Assessment Requirements*, dated April 1998.

UST 5 was closed in place due to the location of high power utilities located directly adjacent to the UST. Four soil borings were advanced 1 to 15 feet below land surface to obtain soil samples for tank operation impact evaluation and four ground water wells were installed to evaluate the groundwater around the tank. Three of the four soil borings were found to be petroleum impacted in the saturated zone and three of the four groundwater wells appear to be impacted with low levels of benzene.

1.0 Introduction

CH2M HILL Constructors, Inc. (CCI) was contracted by the Department of the Navy, Southern Division Naval Facilities Engineering Command (NAVFAC), to prepare this Tank Closure Assessment Report under Response Contract No. N62467-01-D-0331, Contract Task Order (CTO) No. 0008. The purpose of this report is to document the results of the Truman Annex Underground Storage Tank (UST) 5 underground tank closure activities completed by CCI under CTO 0008 at Naval Air Station (NAS) Key West, in the Truman Annex area, in Key West, Florida. This work was performed from August 26 to 29, 2003, in accordance with the management approach outlined in the CCI Contract Management Plan (July 1998), CCI Work Plan Addendum No. 01 (August 2003), and NAS Key West Basewide Work Plan, Revision 01 (July 2000)

Table 1-1 lists the chronology of events.

TABLE 1-1
Chronology of Events

Event	Start Dates
CCI Mobilization	August 25, 2003
Direct push soil boring and sampling (4)	August 26, 2003
Clean and fill UST with flow-able fill, in-place	August 27, 2003
Well Installation (4)	August 28, 2003
Well groundwater sampling	August 29, 2003
Demobilization	August 29, 2003

1.1 Site Description

NAS Key West is located approximately 150 miles southwest of Miami, in Monroe County, Florida. NAS Key West, a complex located in several areas of the Lower Florida Keys, encompasses approximately 5,000 acres (see Figure 1-1). The majority of the facility's operations and activities are concentrated on Boca Chica Key. The mission of NAS Key West is to maintain and operate facilities and provide services and materials to support operations of aviation activities and units designated by the Chief of Naval Operations.

Truman Annex, located on the southwest side of Key West, and is part of NAS Key West. UST 5 is located in an area that is directly behind and to the southwest of the new security gate entrance to the Truman Annex area. Figure 1-2 shows the location of UST 5, including monitoring wells and soil borings.

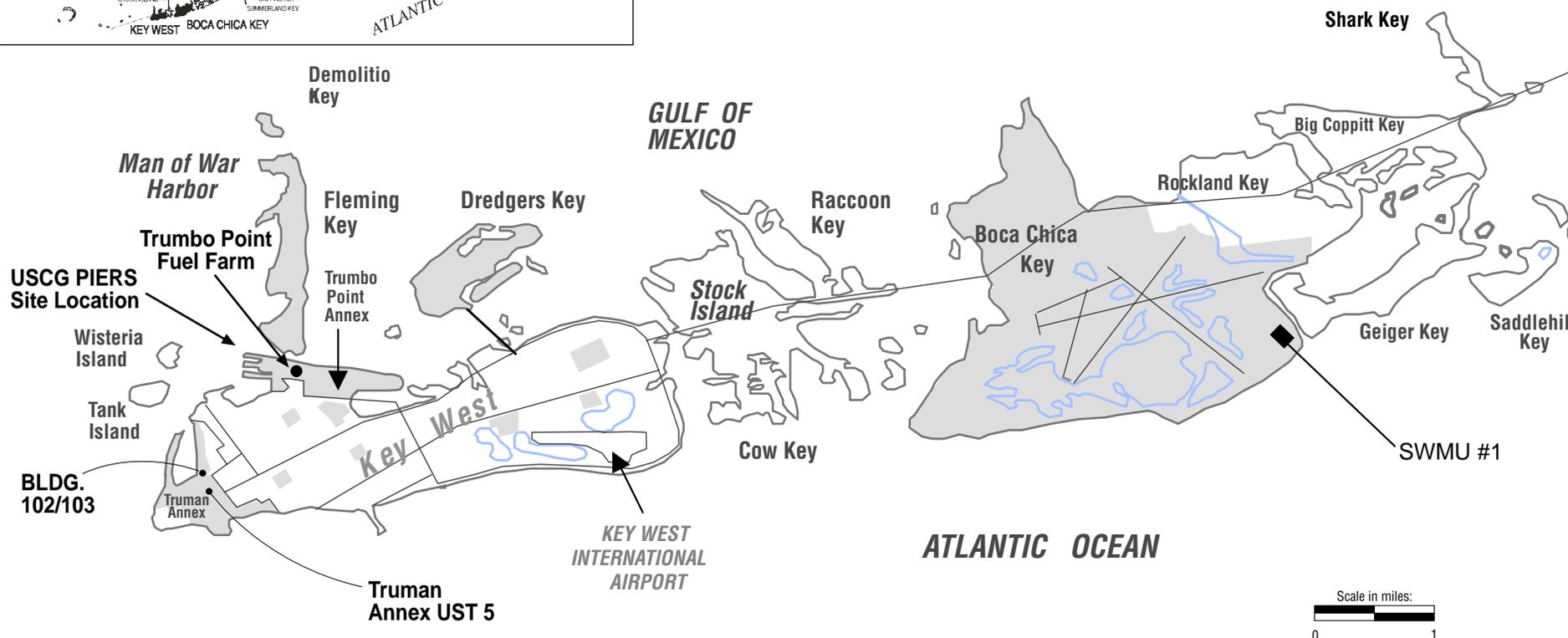
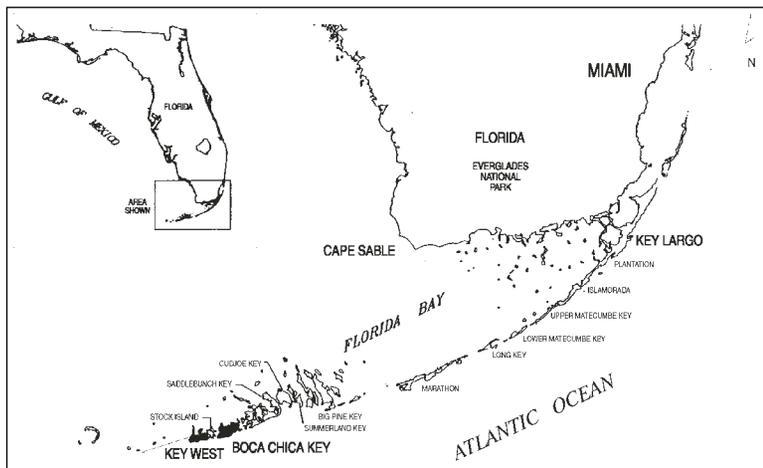


Figure 1-1
 Site Location Map
 Building 103 Truman Annex
 NAS Key West
 Key West, Florida

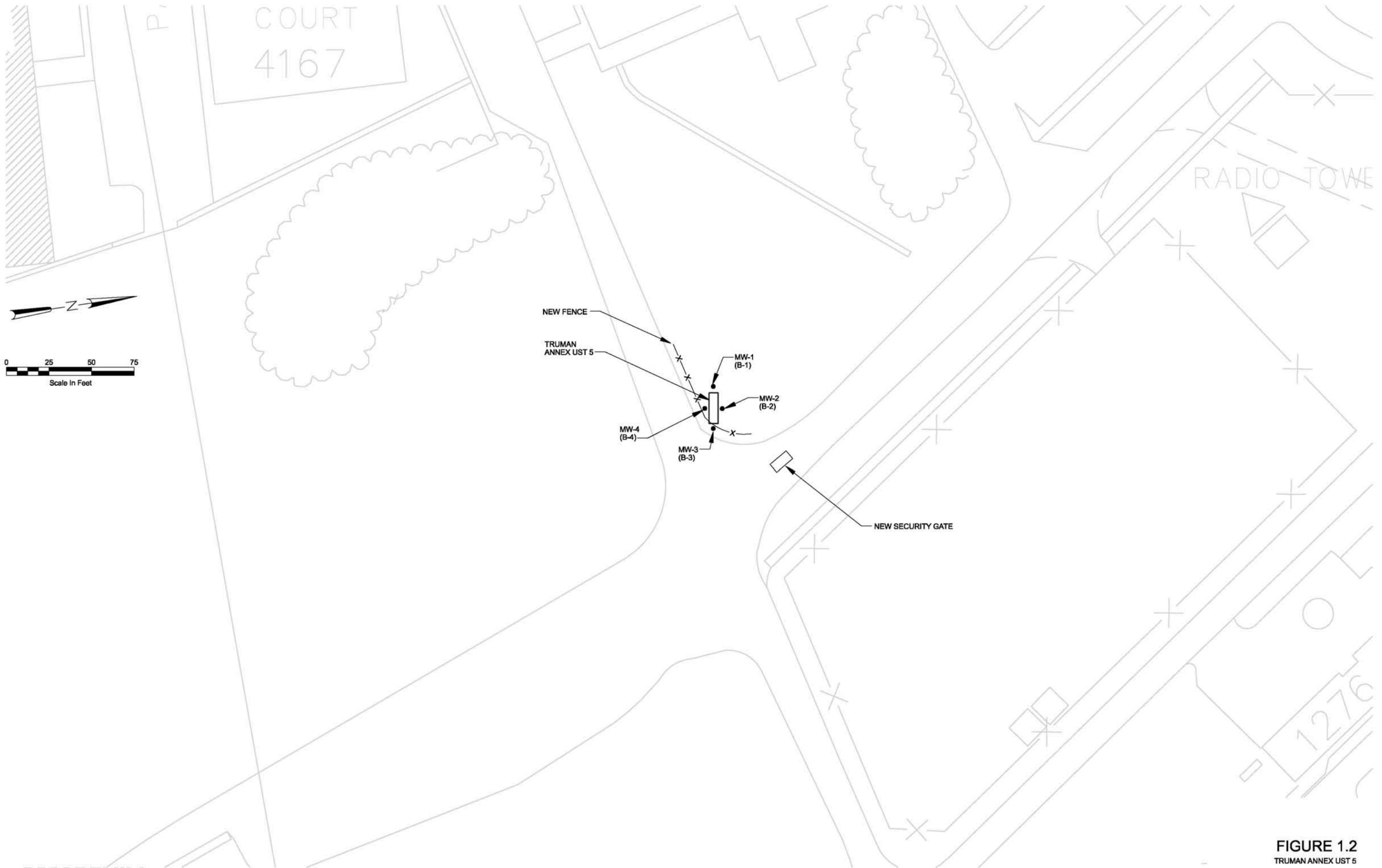


FIGURE 1.2
TRUMAN ANNEX UST 5

2.0 Analytical Results

With the completion of the tank closure in place, activities were implemented to meet the State of Florida requirements for tank closure and assessment, including installation of monitoring wells and soil borings.

The location chosen for the soil boring was the exact mid-point of each of the four sides of the tank and 4 feet from the side walls. Prior to the well installation, a direct push rig obtained soil cores at this location and the soil was evaluated (screened) every 4 feet with a flame ionization detector (FID) to determine the highest impacted soil in the core. Soil samples were collected at 1-foot intervals until groundwater was reached. Four soil samples were obtained from each core location for FID evaluation. Water levels precluded the evaluation screening of additional soil below 4 feet below land surface (bls). Final soil samples were obtained with an additional core (within 6 inches of the original core location) for off-site laboratory analysis of the highest impacted soil for State required petroleum constituents .

Four wells were installed around the tank in the same location of the soil borings, for the purpose of obtaining a groundwater sample for off-site laboratory analysis for petroleum constituents.

Table 2-1 lists the results of FID screening of each soil boring around UST 5; Table 2-2 lists the analytical results of the groundwater samples obtained from the four wells installed around UST 5; and Table 2-3 lists the analytical results of the soil samples obtained from the four borings around UST 5. Appendix A provides laboratory analytical results for soil and groundwater samples.

TABLE 2-1
 Summary of Soil Screening Results
 Truman Annex UST 5, NAS Key West, Key West, Florida

Location	Depth ¹ (feet bls)	OVA Reading (ppm)		
		Unfiltered	Filtered ²	Net ³
SB-1	0-1	2.30	***	2.30
	1-2	2.60	***	2.60
	2-3	3.09	***	3.09
	3-4	12.40	4.79	7.61
SB-2	0-1	2.22	***	2.22
	1-2	2.30	***	2.30
	2-3	12.50	4.58	7.92
	3-4	4950.00	99.90	4850.10
SB-3	0-1	3.15	***	3.15
	1-2	3.35	***	3.35
	2-3	7.07	***	7.07
	3-4	100.00	32.98	67.02
SB-4	0-1	6.46	***	6.46
	1-2	2.65	***	2.65
	2-3	3.38	***	3.38
	3-4	14.91	3.93	10.98

Notes:

¹ Depth to water is 2.5 feet

² Soil samples were screened with a filter probe only when the unfiltered reading exceeded 10 ppm

³ Net OVA reading is the difference between the unfiltered and filtered probe readings

Soil samples collected from saturated zone (~2.5 ft bls) for confirmatory analysis.

bls = below land surface

NA = not analyzed

TABLE 2-2
 Summary of Groundwater Analytical Results
 Truman Annex UST 5, NAS Key West, Key West Florida

Data Summary Table CTO 08 RAC4 UST Closure Samples	Groundwater Cleanup Target Levels for Petroleum Products Groundwater [from Chapter 62-777, F.A.C. (effective August 5, 1999)] in µg/L	SampleID	08USTMW1Q303	08USTMW2Q303	08USTMW3Q303	08USTMW4Q303
		StationID	MW-1	MW-2	MW-3	MW-4
		Sample Date	08/26/2003	08/26/2003	08/26/2003	08/26/2003
Parameter	Unit	Unit				
SW8260B	µg/L					
Benzene	1	µg/L	1.33 JB	0.1 U	1.14 JB	3.45 JB
Ethylbenzene	30	µg/L	5.0 U	5.0 U	5.0 U	1.49 J
Toluene	40	µg/L	5.0 U	5.0 U	5.0 U	1.38 J
Xylenes, total	20	µg/L	10.0 U	10.0 U	1.12 J	1.27 J
tert-Butyl methyl ether (MTBE)	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
PAHs 8310						
Acenaphthene	20	µg/L	3.02	3.76	1.0 U	1.0 U
Acenaphthylene	210	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Anthracene	2,100	µg/L	0.153	0.106	0.100 U	0.100 U
Benzo(a)anthracene	0.2	µg/L	0.100 U	0.100 U	0.100 U	0.100 U
Benzo(a)pyrene	0.2	µg/L	0.100 U	0.100 U	0.100 U	0.100 U
Benzo(b)fluoranthene	0.2	µg/L	0.100 U	0.100 U	0.100 U	0.100 U
Benzo(g,h,i)perylene	210	µg/L	0.100 U	0.100 U	0.100 U	0.100 U
Benzo(k)fluoranthene	0.5	µg/L	0.100 U	0.100 U	0.100 U	0.100 U
Chrysene	4.8	µg/L	0.100 U	0.100 U	0.100 U	0.100 U
Dibenz(a,h)anthracene	0.2	µg/L	0.100 U	0.100 U	0.100 U	0.100 U
Fluoranthene	280	µg/L	0.569	0.466	0.100 U	0.100 U
Fluorene	280	µg/L	0.500 U	0.500 U	0.500 U	0.500 U
Indeno(1,2,3-c,d)pyrene	0.2	µg/L	0.041 U	0.041 U	0.041 U	0.041 U
1-Methylnaphthalene	20	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	20	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	20	µg/L	0.250 U	0.250 U	0.250 U	0.250 U
Phenanthrene	210	µg/L	0.100 U	0.100 U	0.100 U	0.100 U
Pyrene	210	µg/L	0.116	0.096 J	0.100 U	0.100 U

J-Result is estimated.

JB-Result is estimated based on equipment rinse blank contamination.

U-Result is not detected.

Notes:

All compounds in bold were detected at the reported concentration.

Compounds detected at levels above GCTLs are shaded in grey.

TABLE 2-3
 Summary of Soil Analytical Results
 Truman Annex UST 5, NAS Key West, Key West, Florida

Parameter	Soil Cleanup Target Levels for Petroleum Products Direct Exposure Residential [from Chapter 62-777, F.A.C. (effective August 5, 1999)] in µg/kg	Soil Cleanup Target Levels for Petroleum Products Residential Leachability based on Groundwater Criteria [from Chapter 62- 770, F.A.C. (effective August 5, 1999)] in µg/kg	SampleID StationID Sample Date	08USTSB1Q303 Soil Boring 01 (2-2.5' Depth) 08/26/2003	08USTSB2Q303 Soil Boring 02 (2-2.5' Depth) 08/26/2003	08USTSB3Q303 Soil Boring 03 (2-2.5' Depth) 08/26/2003	08USTSB4Q303 Soil Boring 04 (2-2.5' Depth) 08/26/2003
	Unit	Unit	Unit				
SW8260B	µg/kg	µg/kg					
Benzene	1,100	7.0	µg/kg	6.30 U	6.92 U	6.46 U	3.24 J
Ethylbenzene	1,100,00	400	µg/kg	6.30 U	6.92 U	6.46 U	6.25 U
Toluene	380,000	400	µg/kg	12.6 U	13.8 U	12.9 U	3.95 J
Xylenes, total	5,900,000	300	µg/kg	6.30 U	6.92 U	6.46 U	1.28 J
tert-Butyl methyl ether (MTBE)	3,200,000	200	µg/kg	6.30 U	6.92 U	6.46 U	6.25 U
PAHs 8310	µg/kg	µg/kg					
Acenaphthene	1,900,000	4,000	µg/kg	38 U	336	38.8 U	36.9 U
Acenaphthylene	1,100,000	22,000	µg/kg	42.2 U	46.9 U	43 U	41 U
Anthracene	18,000,000	2,000,000	µg/kg	4.18 U	9.93	4.26 U	4.06 U
Benzo(a)anthracene	1,400	2,900	µg/kg	21.9	107	8.26	4.75
Benzo(a)pyrene	100	7,800	µg/kg	24.6	85.8	42	4.06 U
Benzo(b)fluoranthene	1,400	9,800	µg/kg	26.8	105	55.6	9.27
Benzo(g,h,i)perylene	2,300,000	13,000,000	µg/kg	26.3	105	46	4.06 U
Benzo(k)fluoranthene	15,000	25,000	µg/kg	11.6	54.5	18.5	4.06 U
Chrysene	140,000	80,000	µg/kg	29.6	149	4.26 U	4.06 U
Dibenz(a,h)anthracene	100	14,000	µg/kg	4.18 U	21.8	14.2	4.06 U
Fluoranthene	2,900,000	550,000	µg/kg	28	238	4.26 U	4.06 U
Fluorene	2,900,000	87,000	µg/kg	21.1 U	23.5 U	21.6 U	20.5 U
Indeno(1,2,3-c,d)pyrene	1,500	28,000	µg/kg	22.3	77.1	33.3	4.06 U
1-Methylnaphthalene	68,000	2,200	µg/kg	41.8 U	46.4 U	42.6 U	40.6 U
2-Methylnaphthalene	80,000	6,100	µg/kg	41.8 U	114	42.6 U	40.6 U
Naphthalene	40,000	1,000	µg/kg	10.5 U	11.7 U	10.7 U	10.2 U
Phenanthrene	2,000,000	120,000	µg/kg	5.9	67.8	4.26 U	4.06 U
Pyrene	2,200,000	570,000	µg/kg	56.1	266	28.8	15.3
FLPRO-01	µg/kg	µg/kg					
petroleum hydrocarbons	340,000	340,000	µg/kg	10,100 U	11,300 U	8,600 J	19,500

J-Result is estimated.

U-Result is not detected.

Notes:

All compounds in bold were detected at the reported concentration.

No compounds were detected above SCTLs.

3.0 Information Related to the Truman Annex UST 5 Closure

3.1 Tank Closure

Specific information related to the closure of Truman Annex UST 5 is provided below.

- **Dimensions of Excavation** - Truman Annex UST 5 was located directly adjacent to a high voltage power pole and the area was not excavated.
- **Depth to Groundwater** - The depth to groundwater at Truman Annex UST 5 is 2.5 feet bls.
- **Volume of Soil Excavated** - Soil was not excavated at the site because of the location of the high voltage power line pole.

3.2 Waste Removal and Disposal

Disposal of soil from the Truman Annex UST 5 did not occur as soil was not excavated at the site.

Investigated derived waste (IDW) was generated from the installation of the four groundwater monitoring wells. A total of one drum per well was generated. Four drums of soil were sampled for landfill disposal approval. The analysis of the IDW is in Appendix A. The four drums of IDW were evaluated for disposal along with petroleum impacted soils from USCG Piers well FP-3-02. It was determined that the soils could be added to the petroleum impacted soil from the FP-3-02 excavation disposal. As a result, the drums were added to the storage pile for transportation and disposal (T&D). Appendix B provides a copy of the disposal manifest for the T&D of soil. All material was disposed at the Waste Management's Central Landfill in Pompano Beach, Florida. Manifest numbers 132517 and 132518 were used to document the transaction. All soils were classified as non-hazardous soil disposal. A total of 39.55 tons of soil were transported to Central Landfill for disposal.

While closing the tank, the contents were vacuumed out, the tank was cleaned with a citrus cleaner, rinsed, and vacuumed once again. This rinse water was combined with well development water and disposed at Industrial Waste Services (IWS) in Jacksonville, Florida. A total of 3,482 gallons of non-hazardous petroleum impacted wastewater was transported to IWS for disposal.

Disposal documentation is provided in Appendix B.

4.0 Tank Closure Procedures

The following procedures were followed during the closure of the Truman Annex UST 5.

4.1 Closure of Truman Annex UST 5

The closure of UST 5 followed the State of Florida closure requirements for in-place closure. The following tasks were accomplished:

- The contents of the tank were sampled for transportation and disposal characterization.
- The contents of the tank were directly vacuumed into a tanker truck for transportation and disposal into an approved treatment and disposal facility. IWS in Jacksonville, Florida, is the disposal facility.
- The tank was inspected by CCI and Environmental Remediation Services, Inc. (ERS).
- The interior was washed with a citrus cleaner and a high pressure water blaster (without confined space entry).
- After surfactant cleaning, the tank was vacuumed again. Cleaning solutions were collected and added to the tank water for disposal.
- After tank cleaning, the tank was filled (flooded) with “flow-able” fill for final closure.

4.2 UST Closure Screening and Sampling

4.2.1 UST Soil Screening

An FID was used to screen the soil headspace at four direct push locations surrounding the tank, in increments of 1 foot to a total depth of 6 feet bls or until groundwater was encountered. A confirmation sample was collected from the depth that yielded the highest corrected FID reading. If any of the readings resulted in corrected values of less than 10 parts per million (ppm), the confirmation sample was collected from the lowest depth above the water table. Samples were collected according to the following procedure.

Procedure for Collection of Headspace Samples

Samples were collected with a split spoon sampler. Readings were obtained from the headspace of samples placed in half-filled, 16-ounce jars. Each soil sample was obtained from the vadose zone (the area above the water table), the soil was allowed to stabilize in temperature (if necessary) to between 20°C (68°F) and 32°C (90°F), and the reading was obtained 5 minutes thereafter. Since the FID was used, each soil sample was measured with and without an activated charcoal filter, unless the unfiltered reading was less than (<) 10 ppm. The total corrected hydrocarbon measurement was determined by subtracting the filtered reading from the unfiltered reading. Analytical instruments were calibrated in

accordance with the manufacturer's instructions. The headspace samples were collected and analyzed using the following procedure:

1. Using the split spoon, a core was extracted from the correct location and depth.
2. A grab sample was collected from the resulting core using the stainless steel spoon.
3. One-half of a 16-oz jar was filled immediately.
4. The 16-oz jar was immediately covered with aluminum foil (using a rubber band if necessary to keep jar covered).
5. The 16-oz jar was labeled.
6. The above five steps were repeated for a second 16-oz jar from the exact same location.
7. The sample vapors were allowed to equilibrate in the 16-oz jar (approximately 1 to 2 minutes)
8. The foil was perforated with the tip of a calibrated FID.
9. The highest reading was recorded. This reading was the result of any volatile organics present from the total petroleum recoverable hydrocarbon (TPRH) plus methane present in the soil.
10. Steps 8 and 9 were repeated on the jars collected from each of the sample locations.
11. A carbon tube filter was attached to the calibrated FID.
12. Steps 8 and 9 were performed on the second 16-oz jar from each location with the carbon filter attached.
13. The highest reading was recorded. This reading was for methane only.
14. The reading obtained in step 13 was subtracted from the reading obtained in step 9.
15. All results, calibrations, and calculations were carefully entered into the logbook.

4.2.2 UST Soil Confirmation Sampling

Following the headspace screening, one confirmatory sample was collected for each boring at the location and depth of the highest total corrected hydrocarbon measurement. If any of readings had corrected values of <10 ppm, the confirmation sample was collected from the lowest depth sampled above the water table. Samples were collected and analyzed according to the following procedure.

Procedure for Collection of Volatile Fractions

1. A split spoon, was used to retrieve a core from the location and depth required for sampling.
2. The core was removed from the split spoon.
3. One of the disposable syringes was opened.

4. The syringe was pushed directly into the center of the core, and filled to the 5 cc mark.
5. The syringe and the collected contents were placed into one of the three vials received from the laboratory.
6. The vials were immediately capped (Note: In general, the entire operation, filling the syringe, pushing it into the vial, and capping the vial, did not take more than 1minute).
7. The process was repeated for the other two vials.
8. The vials were labeled.
9. The samples were then placed in a cooler for shipment to the laboratory.

Procedure for Collection of Non-Volatile Samples

1. A split spoon was used to retrieve a core from the location and depth required for sampling.
2. Several spoonfuls of soil were placed (collected) into a stainless steel bowl.
3. The soil was homogenized utilizing the quartering techniques with a stainless steel spoon. A grab sample was then collected.
4. The appropriate sample jars were filled with the homogenized sample.
5. The sample jars were labeled and packaged for shipment to the laboratory.

4.2.3 UST Groundwater Sampling

As part of the UST closure operation four groundwater monitoring wells were also installed around the UST. Groundwater samples were collected per groundwater sampling methodology set forth in the project work plan. Prior to the collection of monitor well samples, water level measurements were taken and the monitor wells were purged using Low Flow methodology. Water level measurements, well purging and sample collection were performed according to the following procedures.

Procedure for Water Level Measurement

1. The oil/water interface probe was decontaminated.
2. The monitor well was unlocked, uncapped, and the reference mark on the top of the well casing was located. The well number, date and time were recorded in the logbook.
3. The water level was allowed to stabilize prior to measurement. (Note: No free product was encountered during measurement event.)
4. The probe was lowered until water was encountered. This depth was recorded to the nearest) 0.010 foot in the logbook. The probe was then lowered until the bottom of the well was encountered, and this depth was recorded in the logbook. The depth to the water was subtracted from the total depth to determine the height of the water column in the well.

Procedure for Low Flow Monitor Well Purging

1. Reusable equipment was decontaminated prior to use.
2. The volume of water in the well and the minimum volume to be purged were calculated for well purging. The calculated volumes along with the date and time were then recorded into the logbook.
3. The pump intake tubing was lowered into the well and positioned in the screened interval.
4. The pump was then operated at the lowest achievable flow rate. This rate was recorded into the logbook.
5. Water levels were measured concurrently with water quality measurements. The water quality parameters that were collected were dissolved oxygen (DO), oxidation-reduction potential (ORP), turbidity, pH, temperature, and specific conductance. These parameters were recorded prior to purging the well and in five minute intervals thereafter. All measurements were recorded in the logbook.
6. Purging was continued until water quality measurements stabilized within +/-10 percent for three successive measurements and turbidity varied less than 10 nephelometric units for the three successive readings. Samples were collected immediately after the well was purged.

Procedure for Collection of Volatile Groundwater Samples

1. Reusable equipment was decontaminated prior to use, (and between samples as well.) New tubing was used to collect each sample.
2. All samples were collected using a low-flow peristaltic pump and disposable Teflon® tubing. After the water quality parameters were stabilized as set forth in the purging methodology, the pump was momentarily shut off and the tubing leading to the flow-through cell was removed.
3. Teflon® drop tubing was attached and the pump was then turned back on and used to fill the Teflon® drop tubing. The flow on the peristaltic pump was then reversed to fill the vials at a slow steady rate.
4. Immediately after the sample was collected, the properly preserved container was labeled. The sample label, chain of custody, and logbook were all filled in with the appropriate sample identification number, date, time, sample preservation method, required analysis, samplers initials, and NAF Key West reference.
5. Samples were placed in an ice packed cooler and shipped to the laboratory.

Procedure for Collection of Extractable Organic Groundwater Samples

1. Reusable equipment was decontaminated prior to use (and between samples as well). New tubing was used to collect each sample.
2. All samples were collected using a low-flow peristaltic pump and disposable Teflon® tubing. After the water quality parameters were stabilized as set forth in the purging methodology, the pump was momentarily shut off and the tubing leading to the flow-through cell was removed.

3. Teflon® drop tubing was attached and the pump was then turned back on and used to fill the sample containers.
4. Immediately after the sample was collected, the properly preserved container was labeled. The sample label, chain of custody, and logbook were all filled in with the appropriate sample identification number, date, time, sample preservation method, required analysis, samplers initials, and NAS Key West reference.
5. Samples were placed in an ice packed cooler and shipped to the laboratory.

5.0 Tank Registration and Discharge Reporting Form

Appendix C includes all previously submitted documentation provided under FDEP 62-761.900.

6.0 References

CH2M HILL Constructors, Inc. May 2000. Basewide Work Plan, Revision 01, NAS Key West, Key West, Florida.

CH2M HILL Constructors, Inc. Work Plan Addendum No. 01, NAS Key West, Key West, Florida.

Appendix A
Analytical Reports

e*data, inc.

Environmental Data Management
& Chemistry Consulting Services

981001

October 6, 2003

Melissa Aycock
CH2M HILL Constructors, Inc.
115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA 30346-1278

Subject: Data Validation Services for the NAS Key West, UST Abandonment Activities Effort. Remedial Action Contract, SoDiv; Contract No. N62467-98-D-0995. CTO #0008.

Dear Ms. Aycock,

Enclosed please find the data validation package for CTO #0008 – NAS Key West, UST Abandonment Activities Effort. A copy of the validated database file in comma-delimited variable (csv) file format has been emailed to your attention. Three additional fields were added for the validated results, validated qualifiers, and qualifier codes.

This report addresses one sample deliver group (SDG) for the NAS Key West sampling effort. The SDG is 203082830, which include GCAL work orders 203082830 and 203090203. Mr. Chris Ohland, a senior data validator, conducted the data validation effort.

Please call me at (414) 475-5503 if you have any questions or need additional information.

Sincerely,

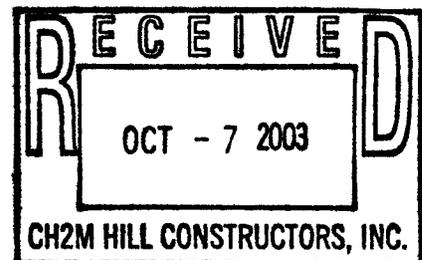


Christopher Ohland
Senior Environmental Chemist

Enclosures
CMO/jo
edata:031006LTR

Approved For Quality Assurance By:

Camden L. Robinson Date 10/8/03



Data Validation Reference Package

Acronyms and Abbreviations

CLP	Contract Laboratory Program
COC	Chain-of-Custody
%D	Percent Difference
DUP	Duplicate
GC	Gas Chromatography
GS/MS	Gas Chromatography / Mass Spectroscopy
IS	Internal Standard
LCS	Laboratory Control Sample
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NFG	Nation Functional Guidelines
%REC	Percent Recovery
QA	Quality Assurance
QC	Quality Control
RL	Reporting Limits
RPD	Relative Percent Difference
RSD	Relative Standard Deviation
SVOCs	Semi Volatile Organic Compounds
VOC	Volatile Organic Compound

Data Qualifier Reference Table

Final validated data were assigned qualifiers per USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (NFG). Table 1 presents all data qualifiers used in data validation for the NAS Key West, UST Abandonment Activities Effort-CTO#0008.

TABLE 1
EXAMPLE DATA QUALIFIER REFERENCE
(CTO#0008- NAS Key West, UST Abandonment Activities)

Qualifier	Inorganic	Organic
=	The parameter was detected at the reported concentration.	The parameter was detected at the reported concentration.
U	The analyte was analyzed for, but was not detected above the reported sample quantification limit	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit of the sample detection limit.
J	The associated value is an estimated quantity.	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.

Qualification Code Reference Table

Qualification codes explain why data qualifiers have been applied and identify possible limitations of data use. Table 2 presents all data qualifier codes used in data validation for the NAS Key West, UST Abandonment Activities Effort-CTO#0008.

TABLE 2
EXAMPLE DATA QUALIFIER CODE REFERENCE
(CTO#0008- NAS Key West, UST Abandonment Activities)

Code	Inorganic	Organic
<	Concentration measurement is less than the laboratory limit of reporting, but greater than the method detection limit.	Concentration measurement is less than the laboratory limit of reporting, but greater than the method detection limit.
B	Presumed contamination from preparation (method) blank or calibration blank.	Presumed contamination from preparation (method) blank.
Z	The field duplicate precision objective was not met.	The field duplicate precision objective was not met.

Data Validation Report

Introduction

The Navy issued a task order to CH2M HILL Constructors, Inc. (CCI) to conduct sampling and analysis activities at the NAS Key West, UST Abandonment Activities Effort under Navy Remedial Action Contract, SoDiv; Contract No. N62467-98-D-0995; CTO #0008. This report describes the data validation services provided by E-Data Inc., in support of CCI project number 180028.

CCI collected soil and water samples during the period between August 26, 2003 and August 29, 2003. Samples were taken at 4 soil, 4 aqueous, and 1 disposal material sampling locations. Field quality control samples include 2 field duplicate, 3 equipment rinse, and 2 trip blank samples. The laboratory prepared project-specific samples for MS/MSD pair analyses where applicable for all organic, inorganic, and wet chemistry analyses.

A summary of the samples and required analyses is shown in Table 3. Samples were submitted to Gulf Coast Analytical Laboratory, located in Baton Rouge, Louisiana.

Laboratory data were validated using CCI-approved checklists based on the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. A copy of the laboratory reports with data qualifiers applied during the data validation and chain-of-custody forms are provided in Appendix A. Appendix B contains copies of the completed data validation checklists.

Sample results from the final validated-laboratory reports were compared to the electronic data. Table C-1 (Appendix C) summarizes the 336 sample results that were verified. The database contains 336 results from regular, field duplicate, equipment rinse blank, and trip blank samples.

This report addresses one sample deliver group (SDG) for the NAS Key West sampling effort. The SDG is 203082830, which include GCAL work orders 203082830 and 203090203. Mr. Chris Ohland, a senior data validator, conducted the data validation effort.

Data Validation Findings Summary

This section presents a summary of the data validation findings of the data reviewer.

General Comments

No general comments are noted in the data validation checklists.

Volatile Organic Analyses

Matrix Spike

A matrix spike and matrix spike duplicate analysis was performed using samples 20309020305 (water) and 20308283005 (soil). Low percent recoveries were observed for ethylbenzene and xylene (20308283005). No action was taken to qualify the non-detected sample result.

Blank Contaminants

Trace levels of benzene were present in at least one or more method blank, equipment rinse blank, or trip blank analyses. Action levels were determined using the 5/10X Rule. Aqueous sample results less than the Action Levels are qualified as associated with a blank containing a target analyte and flagged "J," with a qualifier code of "B." The following action levels were applied: benzene (16 µg/L).

Field Duplicate

Field duplicate samples were collected and analyses were performed using samples 20308283004/20308283005 and 20309020304/20309020305. Acceptable field duplicate precision objectives were obtained.

Internal Standards

The internal standard recovery (1,4-dichlorobenzene) in sample 20308283005 was marginally below the lower control limit. No action was taken to qualify the sample results because no target compounds were quantified from the standard.

Polyaromatic Hydrocarbon Analyses

Matrix Spike

A matrix spike and matrix spike duplicate analysis was performed using samples 20309020305 (Water) and 20308283005 (Soil). Accuracy objectives were not achieved for benzo(a)pyrene, benzo(b)fluoranthene, indeno(123cd)pyrene, pyrene, and chrysene in sample 20308283005. Precision objectives were met. If detected, the results for these compounds are qualified as estimates and flagged "J." Accuracy and precision objectives were met for aqueous sample 20309020305. No action was taken to qualify the sample results.

Field Duplicate

Field duplicate samples were collected and analyses were performed using samples 20308283004\20308283005 (Soil) and 203090203004\203090203005 (Water). Acceptable field duplicate precision objectives were obtained for the aqueous sample. No action was taken to qualify the sample results. The soil precision data indicates that the sample is heterogeneous. Low concentrations were observed in the field duplicate whereas the native sample measured trace quantities. The detected results of the soil field pair are qualified as estimates and flagged "J."

Florida PRO Analyses

Matrix Spike

A matrix spike and matrix spike duplicate sample analysis was performed on field samples 20308283005 and 20309020310. Project accuracy and precision objectives were met. No action was needed to qualify the sample result.

Field Duplicate

Field duplicate samples were collected and analyzed using field pair's 20308283004 and 20308283005. Precision objectives were not achieved. These results are qualified as estimates and flagged "J."

Waste Characterization Analyses (full suite TCLP, corrosivity, ignitability, PCB, TPH)

These analyses were reviewed using Level B data validation checklists. All accuracy and precision objectives were met, except low levels of some metals were detected in the blank sample analyses. Action levels were calculated based on the 5X Rule and sample results less than the action level were qualified as non-detected and flagged "U."

Technical Validity and Usability

The analytical performance of this data set is very strong. The analytical results meet the data quality objectives defined by the applicable method and NFG, except as noted in the data validation findings.

Summary of Qualified Data

A summary of the data qualified during the data validation exercise is summarized in Table 4.

Table 3

SUMMARY OF REQUESTED ANALYSES

(CTO#0008- NAS Key West, UST Abandonment Activities)

LabSampleID	FieldID	Sample Date	Receive Date	Matrix	QAQC Type	FLPRO	SW1030	SW6010B	SW7470A	SW8081A	SW8082	SW8151A	SW8260B	SW8270C	SW8310	SW9045
20308283001	08USTSB1Q303	8/26/03	8/28/03	SOIL	N	1						5			18	
20308283002	08USTSB2Q303	8/26/03	8/28/03	SOIL	N	1						5			18	
20308283003	08USTSB3Q303	8/26/03	8/28/03	SOIL	N	1						5			18	
20308283004	08USTSB4Q303	8/26/03	8/28/03	SOIL	N	1						5			18	
20308283005	08USTFD1Q303	8/26/03	8/28/03	SOIL	FD	1						5			18	
20308283006	08USTMS1Q303	8/26/03	8/28/03	SOIL	MS	1						5			18	
20308283007	08USTMSD1Q303	8/26/03	8/28/03	SOIL	SD	1						5			18	
20308283008	08USTEB1Q303	8/26/03	8/28/03	WATER	EB	1						5			18	
20308283009	08USTEB2Q303	8/26/03	8/28/03	WATER	EB	1						5			18	
20308283010	08USTTBQ303	8/28/03	8/28/03	WATER	TB							5				
20309020301	08USTMW1Q303	8/29/03	8/30/03	WATER	N							5			18	
20309020302	08USTMW2Q303	8/29/03	8/30/03	WATER	N							5			18	
20309020303	08USTMW3Q303	8/29/03	8/30/03	WATER	N							5			18	
20309020304	08USTMW4Q303	8/29/03	8/30/03	WATER	N							5			18	
20309020305	08USTFD2Q303	8/29/03	8/30/03	WATER	FD							5			18	
20309020306	08USTMS2Q303	8/29/03	8/30/03	WATER	MS							5			18	
20309020307	08USTMSD2Q303	8/29/03	8/30/03	WATER	SD							5			18	
20309020308	08USTEB3Q303	8/29/03	8/30/03	WATER	EB							5			18	
20309020309	08USTTB2Q303	8/30/03	8/30/03	WATER	TB							5				
20309020310	08USTDSQ303	8/29/03	8/30/03	SOIL	N	1	1				7					1
20309020310	08USTDSQ303-1	8/29/03	8/30/03	SOIL	N			7	1	7		2	10	13		

Table 4

SUMMARY OF QUALIFIED RESULTS

(CTO#0008- NAS Key West, UST Abandonment Activities)

Lab Sample ID	FieldID	QA/QC Type	Analysis Method	Analyte	Result	Lab Qual	Valid Result	Valid Qual	Qual Code
20308283003	08USTSB3Q303	N	FLPRO	Petroleum Hydrocarbons	8600 J		8600 J		<
20308283004	08USTSB4Q303	N	FLPRO	Petroleum Hydrocarbons	19500 =		19500 J		Z
20308283004	08USTSB4Q303	N	SW8260B	Benzene	3.24 J		3.24 J		<
20308283004	08USTSB4Q303	N	SW8260B	Toluene	3.95 J		3.95 J		<
20308283004	08USTSB4Q303	N	SW8260B	Xylene (total)	1.28 J		1.28 J		<
20308283004	08USTSB4Q303	N	SW8310	Benzo(a)anthracene	4.75 =		4.75 J		Z
20308283004	08USTSB4Q303	N	SW8310	Benzo(b)fluoranthene	9.27 =		9.27 J		Z
20308283004	08USTSB4Q303	N	SW8310	Pyrene	15.3 =		15.3 J		Z
20308283005	08USTFD1Q303	FD	FLPRO	Petroleum Hydrocarbons	13500 =		13500 J		Z
20308283005	08USTFD1Q303	FD	SW8260B	Benzene	2.64 J		2.64 J		<
20308283005	08USTFD1Q303	FD	SW8260B	Toluene	2.26 J		2.26 J		<
20308283005	08USTFD1Q303	FD	SW8310	Benzo(a)anthracene	8.6 =		8.6 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Benzo(a)pyrene	42 =		42 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Benzo(b)fluoranthene	72.3 =		72.3 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Benzo(g,h,i)perylene	81.6 =		81.6 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Benzo(k)fluoranthene	20.6 =		20.6 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Dibenz(a,h)anthracene	28.5 =		28.5 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Indeno(1,2,3-cd)pyrene	32.8 =		32.8 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Pyrene	33.7 =		33.7 J		Z
20309020301	08USTMW1Q303	N	SW8260B	Benzene	1.33 J		5 U		B
20309020302	08USTMW2Q303	N	SW8310	Pyrene	0.096 J		0.096 J		<
20309020303	08USTMW3Q303	N	SW8260B	Benzene	1.14 J		5 U		B
20309020303	08USTMW3Q303	N	SW8260B	Xylene (total)	1.12 J		1.12 J		<
20309020304	08USTMW4Q303	N	SW8260B	Benzene	3.45 J		5 U		B
20309020304	08USTMW4Q303	N	SW8260B	Ethylbenzene	1.49 J		1.49 J		<
20309020304	08USTMW4Q303	N	SW8260B	Toluene	1.38 J		1.38 J		<
20309020304	08USTMW4Q303	N	SW8260B	Xylene (total)	1.27 J		1.27 J		<
20309020305	08USTFD2Q303	FD	SW8260B	Benzene	2.57 J		5 U		B
20309020305	08USTFD2Q303	FD	SW8260B	Ethylbenzene	1.27 J		1.27 J		<
20309020308	08USTEB3Q303	EB	SW8260B	Benzene	1.57 J		1.57 J		<
20309020310	08USTDSQ303-1	N	SW6010B	Barium	0.49 B		0.49 J		<
20309020310	08USTDSQ303-1	N	SW6010B	Chromium	0.0081 B		0.0081 J		<
20309020310	08USTDSQ303-1	N	SW6010B	Lead	0.0079 B		0.0079 J		<
20309020310	08USTDSQ303-1	N	SW6010B	Selenium	0.0089 B		0.0089 U		B

Table 4
SUMMARY OF QUALIFIED RESULTS
(CTO#0008- NAS Key West, UST Abandonment Activities)

Lab Sample ID	FieldID	QA/QC Type	Analysis Method	Analyte	Result	Lab Qual	Valid Result	Valid Qual	Qual Code
20308283003	08USTSB3Q303	N	FLPRO	Petroleum Hydrocarbons	8600 J		8600 J		<
20308283004	08USTSB4Q303	N	FLPRO	Petroleum Hydrocarbons	19500 =		19500 J		Z
20308283004	08USTSB4Q303	N	SW8260B	Benzene	3.24 J		3.24 J		<
20308283004	08USTSB4Q303	N	SW8260B	Toluene	3.95 J		3.95 J		<
20308283004	08USTSB4Q303	N	SW8260B	Xylene (total)	1.28 J		1.28 J		<
20308283004	08USTSB4Q303	N	SW8310	Benzo(a)anthracene	4.75 =		4.75 J		Z
20308283004	08USTSB4Q303	N	SW8310	Benzo(b)fluoranthene	9.27 =		9.27 J		Z
20308283004	08USTSB4Q303	N	SW8310	Pyrene	15.3 =		15.3 J		Z
20308283005	08USTFD1Q303	FD	FLPRO	Petroleum Hydrocarbons	13500 =		13500 J		Z
20308283005	08USTFD1Q303	FD	SW8260B	Benzene	2.64 J		2.64 J		<
20308283005	08USTFD1Q303	FD	SW8260B	Toluene	2.26 J		2.26 J		<
20308283005	08USTFD1Q303	FD	SW8310	Benzo(a)anthracene	8.6 =		8.6 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Benzo(a)pyrene	42 =		42 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Benzo(b)fluoranthene	72.3 =		72.3 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Benzo(g,h,i)perylene	81.6 =		81.6 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Benzo(k)fluoranthene	20.6 =		20.6 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Dibenz(a,h)anthracene	28.5 =		28.5 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Indeno(1,2,3-cd)pyrene	32.8 =		32.8 J		Z
20308283005	08USTFD1Q303	FD	SW8310	Pyrene	33.7 =		33.7 J		Z
20309020301	08USTMW1Q303	N	SW8260B	Benzene	1.33 J		1.33 J		B
20309020302	08USTMW2Q303	N	SW8310	Pyrene	0.096 J		0.096 J		<
20309020303	08USTMW3Q303	N	SW8260B	Benzene	1.14 J		1.14 J		B
20309020303	08USTMW3Q303	N	SW8260B	Xylene (total)	1.12 J		1.12 J		<
20309020304	08USTMW4Q303	N	SW8260B	Benzene	3.45 J		3.45 J		B
20309020304	08USTMW4Q303	N	SW8260B	Ethylbenzene	1.49 J		1.49 J		<
20309020304	08USTMW4Q303	N	SW8260B	Toluene	1.38 J		1.38 J		<
20309020304	08USTMW4Q303	N	SW8260B	Xylene (total)	1.27 J		1.27 J		<
20309020305	08USTFD2Q303	FD	SW8260B	Benzene	2.57 J		2.57 J		B
20309020305	08USTFD2Q303	FD	SW8260B	Ethylbenzene	1.27 J		1.27 J		<
20309020308	08USTEB3Q303	EB	SW8260B	Benzene	1.57 J		1.57 J		<
20309020310	08USTDSQ303-1	N	SW6010B	Barium	0.49 B		0.49 J		<
20309020310	08USTDSQ303-1	N	SW6010B	Chromium	0.0081 B		0.0081 J		<
20309020310	08USTDSQ303-1	N	SW6010B	Lead	0.0079 B		0.0079 J		<
20309020310	08USTDSQ303-1	N	SW6010B	Selenium	0.0089 B		0.0089 U		B

Table C-1

SUMMARY OF VERIFIED EDD DATA

(CTO#0008- NAS Key West, UST Abandonment Act)

Lab Sample ID:	20308283001	20308283002	20308283003	20308283004	20308283005
Field Sample ID (08UST...):	SB1Q303	SB2Q303	SB3Q303	SB4Q303	FD1Q303
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Type:	N	N	N	N	FD
Sample Collection Date:	8/26/2003	8/26/2003	8/26/2003	8/26/2003	8/26/2003
Florida PRO					
Petroleum Hydrocarbon:	10100 U	11300 U	8600 J <	19500 J Z	13500 J Z
Florida PRO					
Petroleum Hydrocarbon:	--	--	--	--	--
VOCs (SW8260B)					
Benzene	6.30 U	6.92 U	6.46 U	3.24 J <	2.64 J <
Ethylbenzene	6.30 U	6.92 U	6.46 U	6.25 U	5.35 U
tert-Butyl methyl ether (MTBE)	6.30 U	6.92 U	6.46 U	6.25 U	5.35 U
Toluene	6.30 U	6.92 U	6.46 U	3.95 J <	2.26 J <
Xylene (total)	12.6 U	13.8 U	12.9 U	1.28 J <	10.7 U
VOCs (SW8260B)					
Benzene	--	--	--	--	--
Ethylbenzene	--	--	--	--	--
tert-Butyl methyl ether (MTBE)	--	--	--	--	--
Toluene	--	--	--	--	--
Xylene (total)	--	--	--	--	--
PAHs (SW8310)					
1-Methylnaphthalene	41.8 U	46.4 U	42.6 U	40.6 U	42.1 U
2-Methylnaphthalene	41.8 U	114 =	42.6 U	40.6 U	42.1 U
Acenaphthene	38.0 U	336 =	38.8 U	36.9 U	38.3 U
Acenaphthylene	42.2 U	46.9 U	43.0 U	41.0 U	42.5 U
Anthracene	4.18 U	9.93 =	4.26 U	4.06 U	4.21 U
Benzo(a)anthracene	21.9 =	107 =	8.26 =	4.75 J Z	8.60 J Z
Benzo(a)pyrene	24.6 =	85.8 =	42.0 =	4.06 U	42.0 J Z
Benzo(b)fluoranthene	26.8 =	105 =	55.6 =	9.27 J Z	72.3 J Z
Benzo(g,h,i)perylene	26.3 =	105 =	46.0 =	4.06 U	81.6 J Z
Benzo(k)fluoranthene	11.6 =	54.5 =	18.5 =	4.06 U	20.6 J Z
Chrysene	29.6 =	149 =	4.26 U	4.06 U	4.21 U
Dibenz(a,h)anthracene	4.18 U	21.8 =	14.2 =	4.06 U	28.5 J Z
Fluoranthene	28.0 =	238 =	4.26 U	4.06 U	4.21 U
Fluorene	21.1 U	23.5 U	21.6 U	20.5 U	21.3 U
Indeno(1,2,3-cd)pyrene	22.3 =	77.1 =	33.3 =	4.06 U	32.8 J Z
Naphthalene	10.5 U	11.7 U	10.7 U	10.2 U	10.6 U
Phenanthrene	5.90 =	67.8 =	4.26 U	4.06 U	4.21 U
Pyrene	56.1 =	266 =	28.8 =	15.3 J Z	33.7 J Z
PAHs (SW8310)					
1-Methylnaphthalene	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--
Acenaphthene	--	--	--	--	--
Acenaphthylene	--	--	--	--	--
Anthracene	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--
Chrysene	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--
Fluoranthene	--	--	--	--	--
Fluorene	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--
Naphthalene	--	--	--	--	--
Phenanthrene	--	--	--	--	--
Pyrene	--	--	--	--	--

Table C-1

SUMMARY OF VERIFIED EDD DATA

(CTC#0008- NAS Key West, UST Abandonment Act)

Lab Sample ID:	20308283008	20308283009	20308283010	20309020301	20309020302
Field Sample ID (08UST...):	EB1Q303	EB2Q303	TBQ303	MW1Q303	MW2Q303
Matrix:	WATER	WATER	WATER	WATER	WATER
Sample Type:	EB	EB	TB	N	N
Sample Collection Date:	8/26/2003	8/26/2003	8/28/2003	8/29/2003	8/29/2003
Florida PRO					
Petroleum Hydrocarbon:	--	--	--	--	--
Florida PRO					
Petroleum Hydrocarbon:	100 U	100 U	--	--	--
VOCs (SW8260B)					
Benzene	--	--	--	--	--
Ethylbenzene	--	--	--	--	--
tert-Butyl methyl ether (MTBE)	--	--	--	--	--
Toluene	--	--	--	--	--
Xylene (total)	--	--	--	--	--
VOCs (SW8260B)					
Benzene	5.00 U	5.00 U	5.00 U	1.33 J B	5.00 U
Ethylbenzene	5.00 U				
tert-Butyl methyl ether (MTBE)	5.00 U				
Toluene	5.00 U				
Xylene (total)	10.0 U				
PAHs (SW8310)					
1-Methylnaphthalene	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--
Acenaphthene	--	--	--	--	--
Acenaphthylene	--	--	--	--	--
Anthracene	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--
Chrysene	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--
Fluoranthene	--	--	--	--	--
Fluorene	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--
Naphthalene	--	--	--	--	--
Phenanthrene	--	--	--	--	--
Pyrene	--	--	--	--	--
PAHs (SW8310)					
1-Methylnaphthalene	1.00 U	1.12 U	--	1.00 U	1.00 U
2-Methylnaphthalene	1.00 U	1.12 U	--	1.00 U	1.00 U
Acenaphthene	1.00 U	1.12 U	--	3.02 =	3.76 =
Acenaphthylene	1.00 U	1.12 U	--	1.00 U	1.00 U
Anthracene	0.100 U	0.112 U	--	0.153 =	0.106 =
Benzo(a)anthracene	0.100 U	0.112 U	--	0.100 U	0.100 U
Benzo(a)pyrene	0.100 U	0.112 U	--	0.100 U	0.100 U
Benzo(b)fluoranthene	0.100 U	0.112 U	--	0.100 U	0.100 U
Benzo(g,h,i)perylene	0.100 U	0.112 U	--	0.100 U	0.100 U
Benzo(k)fluoranthene	0.100 U	0.112 U	--	0.100 U	0.100 U
Chrysene	0.100 U	0.112 U	--	0.100 U	0.100 U
Dibenz(a,h)anthracene	0.100 U	0.112 U	--	0.100 U	0.100 U
Fluoranthene	0.100 U	0.112 U	--	0.569 =	0.466 =
Fluorene	0.500 U	0.562 U	--	0.500 U	0.500 U
Indeno(1,2,3-cd)pyrene	0.250 U	0.281 U	--	0.250 U	0.250 U
Naphthalene	0.250 U	0.281 U	--	0.250 U	0.250 U
Phenanthrene	0.100 U	0.112 U	--	0.100 U	0.100 U
Pyrene	0.100 U	0.112 U	--	0.116 =	0.096 J <

Table C-1

SUMMARY OF VERIFIED EDD DATA

(CTO#0008- NAS Key West, UST Abandonment Act)

Lab Sample ID:	20309020303	20309020304	20309020305	20309020308	20309020309
Field Sample ID (08UST...):	MW3Q303	MW4Q303	FD2Q303	EB3Q303	TB2Q303
Matrix:	WATER	WATER	WATER	WATER	WATER
Sample Type:	N	N	FD	EB	TB
Sample Collection Date:	8/29/2003	8/29/2003	8/29/2003	8/29/2003	8/30/2003
Florida PRO					
Petroleum Hydrocarbon:	--	--	--	--	--
Florida PRO					
Petroleum Hydrocarbon:	--	--	--	--	--
VOCs (SW8260B)					
Benzene	--	--	--	--	--
Ethylbenzene	--	--	--	--	--
tert-Butyl methyl ether (MTBE)	--	--	--	--	--
Toluene	--	--	--	--	--
Xylene (total)	--	--	--	--	--
VOCs (SW8260B)					
Benzene	1.14 J B	3.45 J B	2.57 J B	1.57 J <	5.00 U
Ethylbenzene	5.00 U	1.49 J <	1.27 J <	5.00 U	5.00 U
tert-Butyl methyl ether (MTBE)	5.00 U				
Toluene	5.00 U	1.38 J <	5.00 U	5.00 U	5.00 U
Xylene (total)	1.12 J <	1.27 J <	10.0 U	10.0 U	10.0 U
PAHs (SW8310)					
1-Methylnaphthalene	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--
Acenaphthene	--	--	--	--	--
Acenaphthylene	--	--	--	--	--
Anthracene	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--
Chrysene	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--
Fluoranthene	--	--	--	--	--
Fluorene	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--
Naphthalene	--	--	--	--	--
Phenanthrene	--	--	--	--	--
Pyrene	--	--	--	--	--
PAHs (SW8310)					
1-Methylnaphthalene	1.00 U	1.00 U	1.00 U	1.00 U	--
2-Methylnaphthalene	1.00 U	1.00 U	1.00 U	1.00 U	--
Acenaphthene	1.00 U	1.00 U	2.48 =	1.00 U	--
Acenaphthylene	1.00 U	1.00 U	1.00 U	1.00 U	--
Anthracene	0.100 U	0.100 U	0.149 =	0.100 U	--
Benzo(a)anthracene	0.100 U	0.100 U	0.100 U	0.100 U	--
Benzo(a)pyrene	0.100 U	0.100 U	0.100 U	0.100 U	--
Benzo(b)fluoranthene	0.100 U	0.100 U	0.100 U	0.100 U	--
Benzo(g,h,i)perylene	0.100 U	0.100 U	0.100 U	0.100 U	--
Benzo(k)fluoranthene	0.100 U	0.100 U	0.100 U	0.100 U	--
Chrysene	0.100 U	0.100 U	0.100 U	0.100 U	--
Dibenz(a,h)anthracene	0.100 U	0.100 U	0.100 U	0.100 U	--
Fluoranthene	0.100 U	0.100 U	0.574 =	0.100 U	--
Fluorene	0.500 U	0.500 U	0.500 U	0.500 U	--
Indeno(1,2,3-cd)pyrene	0.250 U	0.250 U	0.250 U	0.250 U	--
Naphthalene	0.250 U	0.250 U	0.250 U	0.250 U	--
Phenanthrene	0.100 U	0.100 U	0.100 U	0.100 U	--
Pyrene	0.100 U	0.100 U	0.107 =	0.100 U	--

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTSB4Q303

Lab Name: GCAL Contract: _____

Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203082830

Matrix: (soil/water) Soil

Sample wt/vol: 4.92 (g/ml) g Lab Sample ID: 20308283004

Level: (low/med) LOW Lab File ID: 2030829/S6057

% Moisture: not dec. 18 Date Collected: 08/26/03 Time: 1640

GC Column: DB-624-30M ID: .53 (mm) Date Received: 08/28/03

Instrument ID: MSV4 Date Analyzed: 08/29/03 Time: 1514

Soil Extract Volume: _____ (µL) Dilution Factor: 1 Analyst: KRV

Soil Aliquot Volume: _____ (µL) Prep Batch: _____ Analytical Batch: 261895

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	<i>rule</i> MDL	RL
71-43-2	Benzene	3.24	J	< 0.330	6.25
100-41-4	Ethylbenzene	6.25	U	1.23	6.25
108-88-3	Toluene	3.95	J	< 0.222	6.25
1330-20-7	Xylene (total)	1.28	J	< 0.830	12.5
1634-04-4	tert-Butyl methyl ether (MTBE)	6.25	U	0.272	6.25

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTFD1Q303

Lab Name: GCAL Contract: _____Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203082830Matrix: (soil/water) SoilSample wt/vol: 5.97 (g/ml) g Lab Sample ID: 20308283005Level: (low/med) LOW Lab File ID: 2030829/S6058% Moisture: not dec. 21 Date Collected: 08/26/03 Time: 0000GC Column: DB-624-30M ID: .53 (mm) Date Received: 08/28/03Instrument ID: MSV4 Date Analyzed: 08/29/03 Time: 1543Soil Extract Volume: _____ (µL) Dilution Factor: 1 Analyst: KRVSoil Aliquot Volume: _____ (µL) Prep Batch: _____ Analytical Batch: 261895Analytical Method: SW-846 8260CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	<i>code</i> MDL	RL
---------	----------	--------	---	-----------------	----

71-43-2	Benzene	2.64	J	< 0.282	5.35
100-41-4	Ethylbenzene	5.35	U	1.05	5.35
108-88-3	Toluene	2.26	J	< 0.189	5.35
1330-20-7	Xylene (total)	10.7	U	0.710	10.7
1634-04-4	tert-Butyl methyl ether (MTBE)	5.35	U	0.233	5.35

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTTBQ303

Lab Name: GCAL Contract: _____Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203082830Matrix: (soil/water) WaterSample wt/vol: 5 (g/ml) mLLab Sample ID: 20308283010Level: (low/med) LOWLab File ID: 2030829/S2702

% Moisture: not dec. _____

Date Collected: 08/26/03 Time: 0000GC Column: DB-624-30M ID: .53 (mm)Date Received: 08/28/03Instrument ID: MSV1Date Analyzed: 08/29/03 Time: 1151

Soil Extract Volume: _____ (µL)

Dilution Factor: 1 Analyst: KRV

Soil Aliquot Volume: _____ (µL)

Prep Batch: _____ Analytical Batch: 261886Analytical Method: SW-846 8260CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
---------	----------	--------	---	-----	----

71-43-2	Benzene	5.00	U	0.100	5.00
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTMW1Q303

Lab Name: GCAL Contract: _____

Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203090203

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20309020301

Level: (low/med) LOW Lab File ID: 2030902/S8062

% Moisture: not dec. _____ Date Collected: 08/29/03 Time: 1025

GC Column: DB-624-30M ID: .53 (mm) Date Received: 08/30/03

Instrument ID: MSV2 Date Analyzed: 09/02/03 Time: 1805

Soil Extract Volume: _____ (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: _____ (µL) Prep Batch: _____ Analytical Batch: 261985

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.33	J B	0.100	5.00
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

F

c.l

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTMW2Q303

Lab Name: GCAL Contract: _____

Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203090203

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20309020302

Level: (low/med) LOW Lab File ID: 2030902/S8058

% Moisture: not dec. _____ Date Collected: 08/29/03 Time: 1225

GC Column: DB-624-30M ID: .53 (mm) Date Received: 08/30/03

Instrument ID: MSV2 Date Analyzed: 09/02/03 Time: 1616

Soil Extract Volume: _____ (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: _____ (µL) Prep Batch: _____ Analytical Batch: 261985

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	5.00	U	0.100	5.00
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTMW3Q303

Lab Name: GCAL Contract: _____

Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203090203

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20309020303

Level: (low/med) LOW Lab File ID: 2030903/S8082

% Moisture: not dec. _____ Date Collected: 08/29/03 Time: 1335

GC Column: DB-624-30M ID: .53 (mm) Date Received: 08/30/03

Instrument ID: MSV2 Date Analyzed: 09/03/03 Time: 1207

Soil Extract Volume: _____ (µL) Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: _____ (µL) Prep Batch: _____ Analytical Batch: 262003

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.14	J B	0.100	5.00
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	1.12	J <	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

F

ck

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTMW4Q303

Lab Name: GCAL Contract: _____

Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203090203

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20309020304

Level: (low/med) LOW Lab File ID: 2030902/S8064

% Moisture: not dec. _____ Date Collected: 08/29/03 Time: 1505

GC Column: DB-624-30M ID: .53 (mm) Date Received: 08/30/03

Instrument ID: MSV2 Date Analyzed: 09/02/03 Time: 1848

Soil Extract Volume: _____ (µL) Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: _____ (µL) Prep Batch: _____ Analytical Batch: 261985

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	3.45	J <u>B</u>	0.100	5.00
100-41-4	Ethylbenzene	1.49	J <u><</u>	0.312	5.00
108-88-3	Toluene	1.38	J <u><</u>	0.152	5.00
1330-20-7	Xylene (total)	1.27	J <u><</u>	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTFD2Q303

Lab Name: GCAL Contract: _____
 Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203090203
 Matrix: (soil/water) Water
 Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20309020305
 Level: (low/med) LOW Lab File ID: 2030902/S8065
 % Moisture: not dec. _____ Date Collected: 08/29/03 Time: 0000
 GC Column: DB-624-30M ID: .53 (mm) Date Received: 08/30/03
 Instrument ID: MSV2 Date Analyzed: 09/02/03 Time: 1909
 Soil Extract Volume: _____ (µL) Dilution Factor: 1 Analyst: RSP
 Soil Aliquot Volume: _____ (µL) Prep Batch: _____ Analytical Batch: 261985
 Analytical Method: SW-846 8260
 CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	2.57	J β	0.100	5.00
100-41-4	Ethylbenzene	1.27	J \angle	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTEB3Q303

Lab Name: GCAL Contract: _____

Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203090203

Matrix: (soil/water) Water

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

Lab Sample ID: 20309020308

Level: (low/med) LOW

Lab File ID: 2030902/S8066

% Moisture: not dec. _____

Date Collected: 08/29/03 Time: 1540

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 08/30/03

Instrument ID: MSV2

Date Analyzed: 09/02/03 Time: 1930

Soil Extract Volume: _____ (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: _____ (µL)

Prep Batch: _____ Analytical Batch: 261985

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	<i>Code</i>	MDL	RL
71-43-2	Benzene	1.57	J	<	0.100	5.00
100-41-4	Ethylbenzene	5.00	U		0.312	5.00
108-88-3	Toluene	5.00	U		0.152	5.00
1330-20-7	Xylene (total)	10.0	U		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U		0.122	5.00

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTTB2Q303

Lab Name: GCAL Contract: _____

Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203090203

Matrix: (soil/water) Water

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

Lab Sample ID: 20309020309

Level: (low/med) LOW

Lab File ID: 2030902/S8067

% Moisture: not dec. _____

Date Collected: 08/29/03 Time: 0000

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 08/30/03

Instrument ID: MSV2

Date Analyzed: 09/02/03 Time: 1951

Soil Extract Volume: _____ (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: _____ (µL)

Prep Batch: _____ Analytical Batch: 261985

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	5.00	U	0.100	5.00
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTSB1Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 30 Units: g Lab Sample ID: 20308283001
 Level: (low/med) _____ Date Collected: 08/26/03 Time: 1600
 % Moisture: 21 decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/03/03 Time: 1036
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261855 Analytical Batch: 261948 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 CONCENTRATION UNITS: ug/kg Lab File ID: 030903/H000528

CAS NO. COMPOUND RESULT Q MDL RL

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	41.8	U	11.5	41.8
91-57-6	2-Methylnaphthalene	41.8	U	12.8	41.8
83-32-9	Acenaphthene	38.0	U	12.3	38.0
208-96-8	Acenaphthylene	42.2	U	4.71	42.2
120-12-7	Anthracene	4.18	U	0.596	4.18
56-55-3	Benzo(a)anthracene	21.9	=	1.51	4.18
50-32-8	Benzo(a)pyrene	24.6	=	1.41	4.18
205-99-2	Benzo(b)fluoranthene	26.8	=	0.911	4.18
191-24-2	Benzo(g,h,i)perylene	26.3	=	0.468	4.18
207-08-9	Benzo(k)fluoranthene	11.6	=	1.07	4.18
218-01-9	Chrysene	29.6	=	1.19	4.18
53-70-3	Dibenz(a,h)anthracene	4.18	U	1.12	4.18
206-44-0	Fluoranthene	28.0	=	1.16	4.18
86-73-7	Fluorene	21.1	U	4.44	21.1
193-39-5	Indeno(1,2,3-cd)pyrene	22.3	=	1.15	4.18
91-20-3	Naphthalene	10.5	U	3.90	10.5
85-01-8	Phenanthrene	5.90	=	1.14	4.18
129-00-0	Pyrene	56.1	=	0.603	4.18

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTSB2Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 30 Units: g Lab Sample ID: 20308283002
 Level: (low/med) _____ Date Collected: 08/26/03 Time: 1520
 % Moisture: 28 decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/03/03 Time: 1043
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261855 Analytical Batch: 261948 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030903/H000528

CONCENTRATION UNITS: ug/kg

CAS NO. COMPOUND RESULT Q MDL RL

90-12-0	1-Methylnaphthalene	46.4	U	12.7	46.4
91-57-6	2-Methylnaphthalene	114	"	14.2	46.4
83-32-9	Acenaphthene	336	"	13.7	42.2
208-96-8	Acenaphthylene	46.9	U	5.23	46.9
120-12-7	Anthracene	9.93	"	0.663	4.64
56-55-3	Benzo(a)anthracene	107	"	1.67	4.64
50-32-8	Benzo(a)pyrene	85.8	"	1.56	4.64
205-99-2	Benzo(b)fluoranthene	105	"	1.01	4.64
191-24-2	Benzo(g,h,i)perylene	105	"	0.521	4.64
207-08-9	Benzo(k)fluoranthene	54.5	"	1.19	4.64
218-01-9	Chrysene	149	"	1.33	4.64
53-70-3	Dibenz(a,h)anthracene	21.8	"	1.24	4.64
206-44-0	Fluoranthene	238	"	1.29	4.64
86-73-7	Fluorene	23.5	U	4.94	23.5
193-39-5	Indeno(1,2,3-cd)pyrene	77.1	"	1.28	4.64
91-20-3	Naphthalene	11.7	U	4.33	11.7
85-01-8	Phenanthrene	67.8	"	1.27	4.64
129-00-0	Pyrene	266	"	0.670	4.64

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTSB3Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 30 Units: g Lab Sample ID: 20308283003
 Level: (low/med) _____ Date Collected: 08/26/03 Time: 1740
 % Moisture: 22 decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/03/03 Time: 1751
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261855 Analytical Batch: 261948 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030903P/H00053

CONCENTRATION UNITS: ug/kg

CAS NO. COMPOUND RESULT Q MDL RL

90-12-0	1-Methylnaphthalene	42.6	U	11.7	42.6
91-57-6	2-Methylnaphthalene	42.6	U	13.0	42.6
83-32-9	Acenaphthene	38.8	U	12.6	38.8
208-96-8	Acenaphthylene	43.0	U	4.81	43.0
120-12-7	Anthracene	4.26	U	0.609	4.26
56-55-3	Benzo(a)anthracene	8.26	=	1.54	4.26
50-32-8	Benzo(a)pyrene	42.0	=	1.43	4.26
205-99-2	Benzo(b)fluoranthene	55.6	=	0.930	4.26
191-24-2	Benzo(g,h,i)perylene	46.0	=	0.478	4.26
207-08-9	Benzo(k)fluoranthene	18.5	=	1.09	4.26
218-01-9	Chrysene	4.26	U	1.22	4.26
53-70-3	Dibenz(a,h)anthracene	14.2	=	1.14	4.26
206-44-0	Fluoranthene	4.26	U	1.18	4.26
86-73-7	Fluorene	21.6	U	4.53	21.6
193-39-5	Indeno(1,2,3-cd)pyrene	33.3	=	1.18	4.26
91-20-3	Naphthalene	10.7	U	3.98	10.7
85-01-8	Phenanthrene	4.26	U	1.16	4.26
129-00-0	Pyrene	28.8	=	0.615	4.26

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL
 Lab Code: LA024 Case No.: _____
 Matrix: Soil
 Sample wt/vol: 30 Units: g
 Level: (low/med) _____
 % Moisture: 18 decanted: (Y/N) _____
 GC Column: 201TP-0.15 ID: 2.1 (mm)
 Concentrated Extract Volume: 1000 (µL)
 Soil Aliquot Volume: _____ (µL)
 Injection Volume: 1 (µL)
 GPC Cleanup: (Y/N) N pH: _____
 Prep Batch: 261855 Analytical Batch: 261948

Sample ID: 08USTSB4Q303
 Contract: _____
 SAS No.: _____ SDG No.: 203082830
 Lab Sample ID: 20308283004
 Date Collected: 08/26/03 Time: 1640
 Date Received: 08/28/03
 Date Extracted: _____
 Date Analyzed: 09/03/03 Time: 1110
 Dilution Factor: 1 Analyst: JDT
 Prep Method: _____
 Analytical Method: SW-846 8310
 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030903/H000528

CONCENTRATION UNITS: ug/kg

CAS NO. COMPOUND RESULT Q MDL RL

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	40.6	U	11.1	40.6
91-57-6	2-Methylnaphthalene	40.6	U	12.4	40.6
83-32-9	Acenaphthene	36.9	U	12.0	36.9
208-96-8	Acenaphthylene	41.0	U	4.58	41.0
120-12-7	Anthracene	4.06	U	0.580	4.06
56-55-3	Benzo(a)anthracene	4.75	J	1.46	4.06
50-32-8	Benzo(a)pyrene	4.06	U	1.37	4.06
205-99-2	Benzo(b)fluoranthene	9.27	J	0.886	4.06
191-24-2	Benzo(g,h,i)perylene	4.06	U	0.455	4.06
207-08-9	Benzo(k)fluoranthene	4.06	U	1.04	4.06
218-01-9	Chrysene	4.06	U	1.16	4.06
53-70-3	Dibenz(a,h)anthracene	4.06	U	1.09	4.06
206-44-0	Fluoranthene	4.06	U	1.13	4.06
86-73-7	Fluorene	20.5	U	4.32	20.5
193-39-5	Indeno(1,2,3-cd)pyrene	4.06	U	1.12	4.06
91-20-3	Naphthalene	10.2	U	3.79	10.2
85-01-8	Phenanthrene	4.06	U	1.11	4.06
129-00-0	Pyrene	15.3	J	0.586	4.06

*Call
10/25/03*

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTFD1Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 30 Units: g Lab Sample ID: 20308283005
 Level: (low/med) _____ Date Collected: 08/26/03 Time: 0000
 % Moisture: 21 decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/03/03 Time: 1117
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261855 Analytical Batch: 261948 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030903/H000528

CONCENTRATION UNITS: ug/kg

CAS NO. COMPOUND RESULT Q MDL RL

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	42.1	U	11.6	42.1
91-57-6	2-Methylnaphthalene	42.1	U	12.9	42.1
83-32-9	Acenaphthene	38.3	U	12.4	38.3
208-96-8	Acenaphthylene	42.5	U	4.75	42.5
120-12-7	Anthracene	4.21	U	0.601	4.21
56-55-3	Benzo(a)anthracene	8.60	J	1.52	4.21
50-32-8	Benzo(a)pyrene	42.0	J	1.42	4.21
205-99-2	Benzo(b)fluoranthene	72.3	J	0.919	4.21
191-24-2	Benzo(g,h,i)perylene	81.6	J	0.472	4.21
207-08-9	Benzo(k)fluoranthene	20.6	J	1.08	4.21
218-01-9	Chrysene	4.21	U	1.20	4.21
53-70-3	Dibenz(a,h)anthracene	28.5	J	1.13	4.21
206-44-0	Fluoranthene	4.21	U	1.17	4.21
86-73-7	Fluorene	21.3	U	4.48	21.3
193-39-5	Indeno(1,2,3-cd)pyrene	32.8	J	1.16	4.21
91-20-3	Naphthalene	10.6	U	3.93	10.6
85-01-8	Phenanthrene	4.21	U	1.15	4.21
129-00-0	Pyrene	33.7	J	0.608	4.21

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL
 Lab Code: LA024 Case No.: _____
 Matrix: Water
 Sample wt/vol: 1000 Units: mL
 Level: (low/med) _____
 % Moisture: _____ decanted: (Y/N) _____
 GC Column: 201TP-0.15 ID: 2.1 (mm)
 Concentrated Extract Volume: 1000 (µL)
 Soil Aliquot Volume: _____ (µL)
 Injection Volume: 1 (µL)
 GPC Cleanup: (Y/N) N pH: _____
 Prep Batch: 261857 Analytical Batch: 261949

Sample ID: 08USTEB1Q303
 Contract: _____
 SAS No.: _____ SDG No.: 203082830
 Lab Sample ID: 20308283008
 Date Collected: 08/26/03 Time: 1400
 Date Received: 08/28/03
 Date Extracted: _____
 Date Analyzed: 09/02/03 Time: 1330
 Dilution Factor: 1 Analyst: JDT
 Prep Method: _____
 Analytical Method: SW-846 8310
 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030902/H000526

CONCENTRATION UNITS: ug/L

CAS NO. COMPOUND RESULT Q MDL RL

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTEB2Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Water SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 890 Units: mL Lab Sample ID: 20308283009
 Level: (low/med) _____ Date Collected: 08/26/03 Time: 1810
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/02/03 Time: 1337
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261857 Analytical Batch: 261949 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/LLab File ID: 030902/H000526

CAS NO. COMPOUND RESULT Q MDL RL

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.12	U	0.327	1.12
91-57-6	2-Methylnaphthalene	1.12	U	0.160	1.12
83-32-9	Acenaphthene	1.12	U	0.372	1.12
208-96-8	Acenaphthylene	1.12	U	0.172	1.12
120-12-7	Anthracene	0.112	U	0.027	0.112
56-55-3	Benzo(a)anthracene	0.112	U	0.036	0.112
50-32-8	Benzo(a)pyrene	0.112	U	0.037	0.112
205-99-2	Benzo(b)fluoranthene	0.112	U	0.018	0.112
191-24-2	Benzo(g,h,i)perylene	0.112	U	0.018	0.112
207-08-9	Benzo(k)fluoranthene	0.112	U	0.037	0.112
218-01-9	Chrysene	0.112	U	0.034	0.112
53-70-3	Dibenz(a,h)anthracene	0.112	U	0.033	0.112
206-44-0	Fluoranthene	0.112	U	0.049	0.112
86-73-7	Fluorene	0.562	U	0.111	0.562
193-39-5	Indeno(1,2,3-cd)pyrene	0.281	U	0.046	0.281
91-20-3	Naphthalene	0.281	U	0.139	0.281
85-01-8	Phenanthrene	0.112	U	0.028	0.112
129-00-0	Pyrene	0.112	U	0.038	0.112

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTMW1Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Water SAS No.: _____ SDG No.: 203090203
 Sample wt/vol: 1000 Units: mL Lab Sample ID: 20309020301
 Level: (low/med) _____ Date Collected: 08/29/03 Time: 1025
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 08/30/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/03/03 Time: 1846
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261994 Analytical Batch: 262025 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030903P/H00053

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	3.02	=	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.153	=	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.569	=	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.116	=	0.034	0.100

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTMW2Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Water SAS No.: _____ SDG No.: 203090203
 Sample wt/vol: 1000 Units: mL Lab Sample ID: 20309020302
 Level: (low/med) _____ Date Collected: 08/29/03 Time: 1225
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 08/30/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/03/03 Time: 1907
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261994 Analytical Batch: 262025 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030903P/H00053

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	3.76	≠	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.106	≠	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.466	=	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.096	J	< 0.034	0.100

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTMW3Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Water SAS No.: _____ SDG No.: 203090203
 Sample wt/vol: 1000 Units: mL Lab Sample ID: 20309020303
 Level: (low/med) _____ Date Collected: 08/29/03 Time: 1335
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 08/30/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/03/03 Time: 1914
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261994 Analytical Batch: 262025 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030903P/H00053

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTMW4Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Water SAS No.: _____ SDG No.: 203090203
 Sample wt/vol: 1000 Units: mL Lab Sample ID: 20309020304
 Level: (low/med) _____ Date Collected: 08/29/03 Time: 1505
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 08/30/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/03/03 Time: 1921
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261994 Analytical Batch: 262025 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030903P/H00053

CONCENTRATION UNITS: ug/L

CAS NO. COMPOUND RESULT Q MDL RL

90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>GCAL</u>	Sample ID: <u>08USTFD2Q303</u>
Lab Code: <u>LA024</u> Case No.: _____	Contract: _____
Matrix: <u>Water</u>	SAS No.: _____ SDG No.: <u>203090203</u>
Sample wt/vol: <u>1000</u> Units: <u>mL</u>	Lab Sample ID: <u>20309020305</u>
Level: (low/med) _____	Date Collected: <u>08/29/03</u> Time: <u>0000</u>
% Moisture: _____ decanted: (Y/N) _____	Date Received: <u>08/30/03</u>
GC Column: <u>201TP-0.15</u> ID: <u>2.1</u> (mm)	Date Extracted: _____
Concentrated Extract Volume: <u>1000</u> (µL)	Date Analyzed: <u>09/03/03</u> Time: <u>1928</u>
Soil Aliquot Volume: _____ (µL)	Dilution Factor: <u>1</u> Analyst: <u>JDT</u>
Injection Volume: <u>1</u> (µL)	Prep Method: _____
GPC Cleanup: (Y/N) <u>N</u> pH: _____	Analytical Method: <u>SW-846 8310</u>
Prep Batch: <u>261994</u> Analytical Batch: <u>262025</u>	Sulfur Cleanup: (Y/N) <u>N</u> Instrument ID: <u>HPLC 1</u>
CONCENTRATION UNITS: <u>ug/L</u>	Lab File ID: <u>030903P/H00053</u>

CAS NO. COMPOUND	RESULT	Q	MDL	RL
----------------------------	---------------	----------	------------	-----------

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	2.48	=	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.149	=	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.574	=	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.107	=	0.034	0.100

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTEB3Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Water SAS No.: _____ SDG No.: 203090203
 Sample wt/vol: 1000 Units: mL Lab Sample ID: 20309020308
 Level: (low/med) _____ Date Collected: 08/29/03 Time: 1540
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 08/30/03
 GC Column: 201TP-0.15 ID: 2.1 (mm) Date Extracted: _____
 Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/03/03 Time: 1935
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: JDT
 Injection Volume: 1 (µL) Prep Method: _____
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8310
 Prep Batch: 261994 Analytical Batch: 262025 Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1
 Lab File ID: 030903P/H00053

CONCENTRATION UNITS: ug/L

CAS NO. COMPOUND RESULT Q MDL RL

90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCALSample ID: 08USTSB1Q303Lab Code: LA024 Case No.: _____

Contract: _____

Matrix: SoilSAS No.: _____ SDG No.: 203082830Sample wt/vol: 25 Units: gLab Sample ID: 20308283001Level: (low/med) LOWDate Collected: 08/26/03 Time: 1600% Moisture: 21 decanted: (Y/N) _____Date Received: 08/28/03

GC Column: _____ ID: _____ (mm)

Date Extracted: _____

Concentrated Extract Volume: 2000 (µL)Date Analyzed: 09/04/03 Time: 0726

Soil Aliquot Volume: _____ (µL)

Dilution Factor: 1 Analyst: TLSInjection Volume: 1 (µL)Prep Method: FLORIDA PROGPC Cleanup: (Y/N) N pH: _____Analytical Method: FLORIDA PROPrep Batch: 261854 Analytical Batch: 262041Sulfur Cleanup: (Y/N) N Instrument ID: GCS2ACONCENTRATION UNITS: ug/kgLab File ID: 2030903/SV2AD0**CAS NO. COMPOUND****RESULT Q MDL RL**

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	10100	U	6330	10100

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTSB2Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 25 Units: g Lab Sample ID: 20308283002
 Level: (low/med) LOW Date Collected: 08/26/03 Time: 1520
 % Moisture: 28 decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: _____ ID: _____ (mm) Date Extracted: _____
 Concentrated Extract Volume: 2000 (µL) Date Analyzed: 09/04/03 Time: 0822
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: TLS
 Injection Volume: 1 (µL) Prep Method: FLORIDA PRO
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: FLORIDA PRO
 Prep Batch: 261854 Analytical Batch: 262041 Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A
 CONCENTRATION UNITS: ug/kg Lab File ID: 2030903/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	11300	U	7040	11300

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTSB3Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 25 Units: g Lab Sample ID: 20308283003
 Level: (low/med) LOW Date Collected: 08/26/03 Time: 1740
 % Moisture: 22 decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: _____ ID: _____ (mm) Date Extracted: _____
 Concentrated Extract Volume: 2000 (µL) Date Analyzed: 09/04/03 Time: 0918
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: TLS
 Injection Volume: 1 (µL) Prep Method: FLORIDA PRO
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: FLORIDA PRO
 Prep Batch: 261854 Analytical Batch: 262041 Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A
 CONCENTRATION UNITS: ug/kg Lab File ID: 2030903/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	8600	J	6460	10300

Code
<

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTSB4Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 25 Units: g Lab Sample ID: 20308283004
 Level: (low/med) LOW Date Collected: 08/26/03 Time: 1640
 % Moisture: 18 decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: _____ ID: _____ (mm) Date Extracted: _____
 Concentrated Extract Volume: 2000 (µL) Date Analyzed: 09/04/03 Time: 1110
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: DLB
 Injection Volume: 1 (µL) Prep Method: FLORIDA PRO
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: FLORIDA PRO
 Prep Batch: 261854 Analytical Batch: 262041 Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A
 CONCENTRATION UNITS: ug/kg Lab File ID: 2030903/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	19500	<u>J</u>	6150	9840

code
z

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTFD1Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 25 Units: g Lab Sample ID: 20308283005
 Level: (low/med) LOW Date Collected: 08/26/03 Time: 0000
 % Moisture: 21 decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: _____ ID: _____ (mm) Date Extracted: _____
 Concentrated Extract Volume: 2000 (µL) Date Analyzed: 09/04/03 Time: 1207
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: DLB
 Injection Volume: 1 (µL) Prep Method: FLORIDA PRO
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: FLORIDA PRO
 Prep Batch: 261854 Analytical Batch: 262041 Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A
 CONCENTRATION UNITS: ug/kg Lab File ID: 2030903/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	13500	J	6380	10200	<i>Exale</i> Z

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTEB1Q303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Water SAS No.: _____ SDG No.: 203082830
 Sample wt/vol: 1000 Units: mL Lab Sample ID: 20308283008
 Level: (low/med) LOW Date Collected: 08/26/03 Time: 1400
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 08/28/03
 GC Column: _____ ID: _____ (mm) Date Extracted: _____
 Concentrated Extract Volume: 2000 (µL) Date Analyzed: 09/04/03 Time: 0342
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: TLS
 Injection Volume: 1 (µL) Prep Method: FLORIDA PRO
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: FLORIDA PRO
 Prep Batch: 261856 Analytical Batch: 262041 Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A
 CONCENTRATION UNITS: ug/L Lab File ID: 2030903/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	100	U	40.7	100

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>GCAL</u>	Sample ID: <u>08USTEB2Q303</u>
Lab Code: <u>LA024</u> Case No.: _____	Contract: _____
Matrix: <u>Water</u>	SAS No.: _____ SDG No.: <u>203082830</u>
Sample wt/vol: <u>1000</u> Units: <u>mL</u>	Lab Sample ID: <u>20308283009</u>
Level: (low/med) <u>LOW</u>	Date Collected: <u>08/26/03</u> Time: <u>1810</u>
% Moisture: _____ decanted: (Y/N) _____	Date Received: <u>08/28/03</u>
GC Column: _____ ID: _____ (mm)	Date Extracted: _____
Concentrated Extract Volume: <u>2000</u> (µL)	Date Analyzed: <u>09/04/03</u> Time: <u>0438</u>
Soil Aliquot Volume: _____ (µL)	Dilution Factor: <u>1</u> Analyst: <u>TLS</u>
Injection Volume: <u>1</u> (µL)	Prep Method: <u>FLORIDA PRO</u>
GPC Cleanup: (Y/N) <u>N</u> pH: _____	Analytical Method: <u>FLORIDA PRO</u>
Prep Batch: <u>261856</u> Analytical Batch: <u>262041</u>	Sulfur Cleanup: (Y/N) <u>N</u> Instrument ID: <u>GCS2A</u>
CONCENTRATION UNITS: <u>ug/L</u>	Lab File ID: <u>2030903/SV2AD0</u>

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	100	U	40.7	100

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTDSQ303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203090203
 Sample wt/vol: 25 Units: g Lab Sample ID: 20309020310
 Level: (low/med) LOW Date Collected: 08/29/03 Time: 1640
 % Moisture: 9. decanted: (Y/N) _____ Date Received: 08/30/03
 GC Column: _____ ID: _____ (mm) Date Extracted: _____
 Concentrated Extract Volume: 2000 (µL) Date Analyzed: 09/04/03 Time: 1949
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: DLB
 Injection Volume: 1 (µL) Prep Method: FLORIDA PRO
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: FLORIDA PRO
 Prep Batch: 262006 Analytical Batch: 262041 Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A
 CONCENTRATION UNITS: ug/kg Lab File ID: 2030903/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	146000	=	5540	8870

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTDSQ303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: Soil SAS No.: _____ SDG No.: 203090203
 Sample wt/vol: 30 Units: g Lab Sample ID: 20309020310
 Level: (low/med) LOW Date Collected: 08/29/03 Time: 1640
 % Moisture: 9. decanted: (Y/N) _____ Date Received: 08/30/03
 GC Column: RTX-50-30M ID: .53 (mm) Date Extracted: 09/03/03
 Concentrated Extract Volume: 10000 (µL) Date Analyzed: 09/03/03 Time: 2250
 Soil Aliquot Volume: _____ (µL) Dilution Factor: 1 Analyst: TLS
 Injection Volume: 1 (µL) Prep Method: 3550B
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: SW-846 8082
 Prep Batch: 262005 Analytical Batch: 262052 Sulfur Cleanup: (Y/N) N Instrument ID: GCS5A
 Lab File ID: 2030903/SV5021

CONCENTRATION UNITS: ug/kg

CAS NO. COMPOUND RESULT Q MDL RL

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
12674-11-2	Aroclor-1016	44.4	U	3.35	44.4
11104-28-2	Aroclor-1221	44.4	U	10.2	44.4
11141-16-5	Aroclor-1232	44.4	U	11.1	44.4
53469-21-9	Aroclor-1242	44.4	U	13.0	44.4
12672-29-6	Aroclor-1248	44.4	U	8.66	44.4
11097-69-1	Aroclor-1254	44.4	U	7.20	44.4
11096-82-5	Aroclor-1260	44.4	U	3.35	44.4

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

08USTDSQ303

Lab Name: GCAL Contract: _____Lab Code: LA024 Case No.: _____ SAS No.: _____ SDG No.: 203090203Matrix: (soil/water) SoilSample wt/vol: 5 (g/ml) mLLab Sample ID: 20309020310Level: (low/med) LOWLab File ID: 2030903/S8092% Moisture: not dec. 9.Date Collected: 08/29/03 Time: 1640GC Column: DB-624-30M ID: .53 (mm)Date Received: 08/30/03Instrument ID: MSV2Date Analyzed: 09/03/03 Time: 1706

Soil Extract Volume: _____ (µL)

Dilution Factor: 40 Analyst: RSP

Soil Aliquot Volume: _____ (µL)

Prep Batch: _____ Analytical Batch: 262003CONCENTRATION UNITS: mg/LAnalytical Method: 1311/8260B

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
75-35-4	1,1-Dichloroethene	0.200	U	0.019	0.200
107-06-2	1,2-Dichloroethane	0.200	U	0.017	0.200
78-93-3	2-Butanone	1.00	U	0.022	1.00
71-43-2	Benzene	0.200	U	0.017	0.200
56-23-5	Carbon tetrachloride	0.200	U	0.014	0.200
108-90-7	Chlorobenzene	0.200	U	0.018	0.200
67-66-3	Chloroform	0.200	U	0.018	0.200
127-18-4	Tetrachloroethene	0.200	U	0.016	0.200
79-01-6	Trichloroethene	0.200	U	0.017	0.200
75-01-4	Vinyl chloride	0.200	U	0.020	0.200

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTDSQ303
 Lab Code: LA024 Case No.: _____ Contract: _____
 SAS No.: _____ SDG No.: 203090203 Lab File ID: 2030903/A8696
 Matrix: Soil Lab Sample ID: 20309020310
 Sample wt/vol: 200 Units: mL Date Collected: 08/29/03 Time: 1640
 Level: (low/med) LOW Date Received: 08/30/03
 % Moisture: 9. decanted: (Y/N) _____ Date Extracted: 09/03/03
 GC Column: DB-5MS-30M ID: .25 (mm) Date Analyzed: 09/03/03 Time: 1532
 Concentrated Extract Volume: 1000 (μL) Dilution Factor: 1 Analyst: RLW
 Injection Volume: 1.0 (μL) Prep Method: 1311/3510
 GPC Cleanup: (Y/N) N pH: _____ Analytical Method: 1311/8270C
 Instrument ID: MSSV1
 Prep Batch: 262016 Analytical Batch: 261997
 CONCENTRATION UNITS: mg/L

CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
106-46-7	1,4-Dichlorobenzene	0.050	U	0.005	0.050
95-95-4	2,4,5-Trichlorophenol	0.050	U	0.00060	0.050
88-06-2	2,4,6-Trichlorophenol	0.050	U	0.001	0.050
121-14-2	2,4-Dinitrotoluene	0.050	U	0.00080	0.050
1319-77-3	Cresols	0.100	U	0.003	0.100
118-74-1	Hexachlorobenzene	0.050	U	0.001	0.050
87-68-3	Hexachlorobutadiene	0.050	U	0.00050	0.050
67-72-1	Hexachloroethane	0.050	U	0.00050	0.050
98-95-3	Nitrobenzene	0.050	U	0.002	0.050
87-86-5	Pentachlorophenol	0.100	U	0.005	0.100
110-86-1	Pyridine	0.050	U	0.001	0.050
1319-77-3M	m,p-Cresol	0.050	U	0.00050	0.050
95-48-7	o-Cresol	0.050	U	0.003	0.050

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>GCAL</u>	Sample ID: <u>08USTDSQ303</u>
Lab Code: <u>LA024</u> Case No.: _____	Contract: _____
Matrix: <u>Soil</u>	SAS No.: _____ SDG No.: <u>203090203</u>
Sample wt/vol: <u>100</u> Units: <u>mL</u>	Lab Sample ID: <u>20309020310</u>
Level: (low/med) <u>LOW</u>	Date Collected: <u>08/29/03</u> Time: <u>1640</u>
% Moisture: <u>9.</u> decanted: (Y/N) _____	Date Received: <u>08/30/03</u>
GC Column: <u>RTX-50-30M</u> ID: <u>.53</u> (mm)	Date Extracted: <u>09/03/03</u>
Concentrated Extract Volume: <u>10000</u> (µL)	Date Analyzed: <u>09/03/03</u> Time: <u>2015</u>
Soil Aliquot Volume: _____ (µL)	Dilution Factor: <u>1</u> Analyst: <u>TLS</u>
Injection Volume: <u>1</u> (µL)	Prep Method: <u>SW-846 3510</u>
GPC Cleanup: (Y/N) <u>N</u> pH: _____	Analytical Method: <u>1311/8081A</u>
Prep Batch: <u>262015</u> Analytical Batch: <u>262051</u>	Sulfur Cleanup: (Y/N) <u>N</u> Instrument ID: <u>GCS5A</u>
CONCENTRATION UNITS: <u>mg/L</u>	Lab File ID: <u>2030903/SV5016</u>

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
----------------	-----------------	---------------	----------	------------	-----------

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
57-74-9	Chlordane	0.02500	U	0.00016	0.02500
72-20-8	Endrin	0.00100	U	0.00013	0.00100
76-44-8	Heptachlor	0.00050	U	0.00008	0.00050
1024-57-3	Heptachlor epoxide	0.00050	U	0.00010	0.00050
72-43-5	Methoxychlor	0.02500	U	0.00065	0.02500
8001-35-2	Toxaphene	0.25000	U	0.00050	0.25000
58-89-9	gamma-BHC (Lindane)	0.00050	U	0.00006	0.00050

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>GCAL</u>	Sample ID: <u>08USTDSQ303</u>
Lab Code: <u>LA024</u> Case No.: _____	Contract: _____
Matrix: <u>Soil</u>	SAS No.: _____ SDG No.: <u>203090203</u>
Sample wt/vol: <u>100</u> Units: <u>mL</u>	Lab Sample ID: <u>20309020310</u>
Level: (low/med) <u>LOW</u>	Date Collected: <u>08/29/03</u> Time: <u>1640</u>
% Moisture: <u>9.</u> decanted: (Y/N) _____	Date Received: <u>08/30/03</u>
GC Column: <u>DB1701-30M</u> ID: <u>.53</u> (mm)	Date Extracted: <u>09/04/03</u>
Concentrated Extract Volume: <u>10000</u> (µL)	Date Analyzed: <u>09/04/03</u> Time: <u>1147</u>
Soil Aliquot Volume: _____ (µL)	Dilution Factor: <u>1</u> Analyst: <u>TLS</u>
Injection Volume: <u>1</u> (µL)	Prep Method: <u>SW-846 3510</u>
GPC Cleanup: (Y/N) <u>N</u> pH: _____	Analytical Method: <u>1311/8151</u>
Prep Batch: <u>262054</u> Analytical Batch: <u>262070</u>	Sulfur Cleanup: (Y/N) <u>N</u> Instrument ID: <u>GCS6A</u>
CONCENTRATION UNITS: <u>mg/L</u>	Lab File ID: <u>2030904/SV6004</u>

CAS NO. COMPOUND	RESULT	Q	MDL	RL
----------------------------	---------------	----------	------------	-----------

94-75-7	2,4'-D	0.00500	U	0.00027	0.00500
93-72-1	2,4,5-TP (SILVEX)	0.00500	U	0.00320	0.00500

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 08USTDSQ303
 Lab Code: LA024 Case No.: _____ Contract: _____
 Matrix: (soil / water) Soil SAS No.: _____ SDG No.: 203090203
 Level: (low / med) _____ % Solids: 90.18 Lab Sample ID: 20309020310
 Date Received: 08/30/03 Time: 1025 Date Collected: 08/29/03 Time: 1640

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	<i>code</i>
Arsenic	0.20	mg/L	U	0.0035	0.20	SW-846 1311/6010B	P	
Barium	0.49	mg/L	BT	0.00060	1.00	SW-846 1311/6010B	P	<
Cadmium	0.010	mg/L	U	0.00020	0.010	SW-846 1311/6010B	P	
Chromium	0.0081	mg/L	BT	0.00050	0.050	SW-846 1311/6010B	P	<
Lead	0.0079	mg/L	BT	0.0024	0.10	SW-846 1311/6010B	P	<
Mercury	0.00045	mg/L	=	0.00008	0.00020	SW-846 1311/7470A	AV	
Selenium	0.0089	mg/L	BT	0.0043	0.10	SW-846 1311/6010B	P	B
Silver	0.050	mg/L	U	0.00040	0.050	SW-846 1311/6010B	P	

GCAL ID 20309020310	Client ID 08USTDSQ303	Matrix Solid	Collect Date/Time 08/29/2003 16:40	Receive Date/Time 08/30/2003 10:25
-------------------------------	---------------------------------	------------------------	----------------------------------------------	----------------------------------------------

9045C Solid - pH

Prep Date	Prep Batch	Prep Method	Dilution 1	Analyzed 09/04/2003 09:30	By OLT	Analytical Batch 262061
------------------	-------------------	--------------------	----------------------	-------------------------------------	------------------	-----------------------------------

CAS#	Parameter	Result	Q	RDL	MDL	Units
pH	pH	8.21	=	1.00	1.00	pH unit

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20309020310	08USTDSC303	Solid	08/29/2003 16:40	08/30/2003 10:25

1030 Flashpoint

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	09/04/2003 09:00	HLO	262048

CAS#	Parameter	Result	RDL	MDL	Units
000000-01-7	Ignitable	NO			

RESULTS REPORTED ON A DRY WEIGHT BASIS

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date

GCAL Report 203081803



BojHogue
8/21/03

Deliver To CH2M HILL Constructors Inc.
115 Perimeter Center Place
Suite 700
Atlanta, GA 30346
770-604-9182 Ext. 614

Attn Melissa Aycock

Customer CH2M HILL Constructors Inc.

Project CTO 08 - Key West Florida

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified Report Limit (RDL)
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time is equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates an estimated value
U	Indicates the compound was analyzed for but not detected
B	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
B	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Workorder Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

SCOTT A. BAILEY
OPERATIONS MANAGER
GCAL REPORT 203081803

Workorder Sample Summary

GCAL ID	Client ID	Matrix	Sample Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

Certificate of Analysis

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			100	08/20/2003 14:07	RSP	261515

CAS#	Parameter	Result	RDL	MDL	Units
71-55-6	1,1,1-Trichloroethane	ND	500	20.4	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	ND	20.0	20.0	ug/L
79-00-5	1,1,2-Trichloroethane	ND	500	33.3	ug/L
75-34-3	1,1-Dichloroethane	ND	500	12.2	ug/L
75-35-4	1,1-Dichloroethene	ND	500	35.7	ug/L
120-82-1	1,2,4-Trichlorobenzene	ND	500	40.5	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	ND	20.0	20.0	ug/L
106-93-4	1,2-Dibromoethane	ND	20.0	11.6	ug/L
95-50-1	1,2-Dichlorobenzene	ND	500	22.1	ug/L
107-06-2	1,2-Dichloroethane	305	300	27.7	ug/L
78-87-5	1,2-Dichloropropane	ND	500	34.1	ug/L
541-73-1	1,3-Dichlorobenzene	ND	500	32.0	ug/L
106-46-7	1,4-Dichlorobenzene	ND	500	29.5	ug/L
78-93-3	2-Butanone	ND	1000	64.1	ug/L
591-78-6	2-Hexanone	ND	1000	44.3	ug/L
108-10-1	4-Methyl-2-pentanone	ND	1000	25.2	ug/L
67-64-1	Acetone	ND	1000	236	ug/L
71-43-2	Benzene	6910	100	10.0	ug/L
75-27-4	Bromodichloromethane	ND	60.0	10.2	ug/L
75-25-2	Bromoform	ND	400	14.0	ug/L
74-83-9	Bromomethane	ND	500	33.0	ug/L
75-15-0	Carbon disulfide	ND	500	18.0	ug/L
56-23-5	Carbon tetrachloride	ND	300	16.1	ug/L
108-90-7	Chlorobenzene	ND	500	15.7	ug/L
75-00-3	Chloroethane	ND	500	23.7	ug/L
67-66-3	Chloroform	120	J 500	14.0	ug/L
74-87-3	Chloromethane	ND	270	39.3	ug/L
110-82-7	Cyclohexane	757	500	16.9	ug/L
124-48-1	Dibromochloromethane	ND	40.0	10.5	ug/L
75-71-8	Dichlorodifluoromethane	ND	500	22.8	ug/L
10061-01-5	cis-1,3-Dichloropropene	ND	500	12.8	ug/L
10061-02-6	trans-1,3-Dichloropropene	ND	500	32.9	ug/L
100-41-4	Ethylbenzene	1790	500	31.2	ug/L
98-82-8	Isopropylbenzene (Cumene)	ND	500	24.6	ug/L
79-20-9	Methyl Acetate	ND	500	500	ug/L
108-87-2	Methylcyclohexane	ND	500	500	ug/L
75-09-2	Methylene chloride	ND	500	61.3	ug/L
100-42-5	Styrene	115	J 500	17.3	ug/L
127-18-4	Tetrachloroethene	ND	300	26.9	ug/L
108-88-3	Toluene	16800	500	15.2	ug/L
79-01-6	Trichloroethene	ND	300	32.3	ug/L
75-69-4	Trichlorofluoromethane	ND	500	19.2	ug/L
76-13-1	Trichlorotrifluoroethane	ND	500	19.3	ug/L
75-01-4	Vinyl chloride	ND	100	17.7	ug/L
1330-20-7	Xylene (total)	8030	500	50.7	ug/L
156-59-2	cis-1,2-Dichloroethene	ND	500	15.1	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	500	12.2	ug/L
156-60-5	trans-1,2-Dichloroethene	ND	500	19.2	ug/L

CAS#	Surrogate	Spike Added	Found	Units	% Recovery	Limits
460-00-4	4-Bromofluorobenzene	5000	5090	ug/L	102	78 - 115
1868-53-7	Dibromofluoromethane	5000	5280	ug/L	106	70 - 130

Certificate of Analysis (con't)

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			100	08/20/2003 14:07	RSP	261515

CAS#	Surrogate	Spike Added	Found	Units	% Recovery	Limits
2037-26-5	Toluene d8	5000	4850	ug/L	97	83 - 112
17060-07-0	1,2-Dichloroethane-d4	5000	5200	ug/L	104	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Certificate of Analysis

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

8270C, SemiVolatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/18/2003 10:00	261409	3510C	5	08/19/2003 15:19	RLW	261489

CAS#	Parameter	Result	RDL	MDL	Units
120-82-1	1,2,4-Trichlorobenzene	ND	50.0	0.760	ug/L
95-95-4	2,4,5-Trichlorophenol	ND	20.0	0.585	ug/L
88-06-2	2,4,6-Trichlorophenol	ND	15.0	1.17	ug/L
120-83-2	2,4-Dichlorophenol	ND	2.50	1.01	ug/L
51-28-5	2,4-Dinitrophenol	ND	250	2.80	ug/L
121-14-2	2,4-Dinitrotoluene	ND	2.00	0.790	ug/L
606-20-2	2,6-Dinitrotoluene	ND	2.00	1.51	ug/L
91-58-7	2-Chloronaphthalene	ND	50.0	1.41	ug/L
95-57-8	2-Chlorophenol	ND	50.0	0.545	ug/L
91-57-6	2-Methylnaphthalene	36.5 J	50.0	1.21	ug/L
88-74-4	2-Nitroaniline	ND	250	1.01	ug/L
88-75-5	2-Nitrophenol	ND	50.0	0.930	ug/L
91-94-1	3,3'-Dichlorobenzidine	ND	100	0.755	ug/L
99-09-2	3-Nitroaniline	ND	250	0.560	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	ND	250	2.87	ug/L
59-50-7	4-Chloro-3-methylphenol	ND	50.0	0.855	ug/L
106-47-8	4-Chloroaniline	ND	50.0	0.810	ug/L
7005-72-3	4-Chlorophenyl phenyl ether	ND	50.0	0.860	ug/L
83-32-9	Acenaphthene	ND	50.0	0.925	ug/L
208-96-8	Acenaphthylene	ND	50.0	1.13	ug/L
98-86-2	Acetophenone	ND	50.0	1.08	ug/L
120-12-7	Anthracene	ND	50.0	1.37	ug/L
1912-24-9	Atrazine (Aatrex)	ND	100	0.975	ug/L
100-52-7	Benzaldehyde	ND	100	0.550	ug/L
56-55-3	Benzo(a)anthracene	ND	2.00	0.875	ug/L
50-32-8	Benzo(a)pyrene	ND	2.00	0.990	ug/L
205-99-2	Benzo(b)fluoranthene	ND	2.00	0.805	ug/L
191-24-2	Benzo(g,h,i)perylene	ND	50.0	0.655	ug/L
207-08-9	Benzo(k)fluoranthene	ND	2.50	1.00	ug/L
92-52-4	Biphenyl	ND	50.0	0.965	ug/L
111-91-1	Bis(2-Chloroethoxy)methane	ND	50.0	0.975	ug/L
111-44-4	Bis(2-Chloroethyl)ether	ND	20.0	0.775	ug/L
108-60-1	Bis(2-Chloroisopropyl)ether	ND	50.0	1.35	ug/L
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	25.0	2.83	ug/L
85-68-7	Butyl benzyl phthalate	ND	50.0	1.00	ug/L
105-60-2	Caprolactam	ND	50.0	1.55	ug/L
86-74-8	Carbazole	ND	20.0	0.530	ug/L
218-01-9	Chrysene	ND	25.0	0.850	ug/L
84-74-2	Di-n-butyl phthalate	ND	50.0	4.47	ug/L
117-84-0	Di-n-octyl phthalate	ND	50.0	0.960	ug/L
53-70-3	Dibenz(a,h)anthracene	ND	2.00	1.37	ug/L
132-64-9	Dibenzofuran	ND	50.0	0.850	ug/L
84-66-2	Diethyl phthalate	ND	50.0	0.650	ug/L
131-11-3	Dimethyl phthalate	ND	50.0	0.975	ug/L
105-67-9	2,4-Dimethylphenol	54.1	50.0	0.740	ug/L
206-44-0	Fluoranthene	ND	50.0	0.550	ug/L
86-73-7	Fluorene	ND	50.0	0.750	ug/L
118-74-1	Hexachlorobenzene	ND	5.00	1.42	ug/L
87-68-3	Hexachlorobutadiene	ND	2.50	0.525	ug/L
77-47-4	Hexachlorocyclopentadiene	ND	50.0	1.80	ug/L
67-72-1	Hexachloroethane	ND	10.0	0.545	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.00	0.855	ug/L

Certificate of Analysis (con't)

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

8270C, SemiVolatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/18/2003 10:00	261409	3510C	5	08/19/2003 15:19	RLW	261489

CAS#	Parameter	Result	RDL	MDL	Units
78-59-1	Isophorone	ND	50.0	2.34	ug/L
91-20-3	Naphthalene	391	50.0	1.50	ug/L
100-01-6	4-Nitroaniline	ND	250	0.670	ug/L
98-95-3	Nitrobenzene	ND	20.0	0.945	ug/L
100-02-7	4-Nitrophenol	ND	250	1.99	ug/L
87-86-5	Pentachlorophenol	ND	250	4.63	ug/L
85-01-8	Phenanthrene	ND	50.0	0.595	ug/L
108-95-2	Phenol	17.6	50.0	1.44	ug/L
129-00-0	Pyrene	ND	50.0	0.660	ug/L
1319-77-3MP	m,p-Cresol	57.1	50.0	0.520	ug/L
621-64-7	n-Nitrosodi-n-propylamine	ND	20.0	1.59	ug/L
62-75-9	n-Nitrosodimethylamine	ND	50.0	3.92	ug/L
86-30-6	n-Nitrosodiphenylamine	ND	35.0	0.585	ug/L
95-48-7	o-Cresol	59.8	50.0	2.45	ug/L

CAS#	Surrogate	Spike Added	Found	Units	% Recovery	Limits
4165-60-0	Nitrobenzene-d5	50	42.6	ug/L	85	43 - 110
321-60-8	2-Fluorobiphenyl	50	37.2	ug/L	74	16 - 128
1718-51-0	Terphenyl-d14	50	44.2	ug/L	88	47 - 121
4165-62-2	Phenol-d5	100	24.7	ug/L	25	10 - 76
367-12-4	2-Fluorophenol	100	35.5	ug/L	36	24 - 96
118-79-6	2,4,6-Tribromophenol	100	78.3	ug/L	78	19 - 133

RESULTS REPORTED ON A WET WEIGHT BASIS

LUG/LSD
 Fail Low
 BSH
 8/21/03

Certificate of Analysis

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

8082, PCBs

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/18/2003 09:00	261397	3510C	1	08/18/2003 23:05	DLB	261468

CAS#	Parameter	Result	RDL	MDL	Units
12674-11-2	Aroclor-1016	ND	1.00	0.080	ug/L
11104-28-2	Aroclor-1221	ND	1.00	0.230	ug/L
11141-16-5	Aroclor-1232	ND	1.00	0.200	ug/L
53469-21-9	Aroclor-1242	ND	1.00	0.250	ug/L
12672-29-6	Aroclor-1248	ND	1.00	0.130	ug/L
11097-69-1	Aroclor-1254	ND	1.00	0.210	ug/L
11096-82-5	Aroclor-1260	ND	1.00	0.100	ug/L

CAS#	Surrogate	Spike Added	Found	Units	% Recovery	Limits
2051-24-3	Decachlorobiphenyl	.5	.501	ug/L	100	34 - 135

RESULTS REPORTED ON A WET WEIGHT BASIS

Certificate of Analysis

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

8151A, Herbicides

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/18/2003 10:00	261427	3510C	1	08/18/2003 18:37	DLB	261469

CAS#	Parameter	Result	RDL	MDL	Units
94-75-7	2,4'-D	ND	10.0	0.270	ug/L
93-76-5	2,4,5-T	ND	2.00	0.270	ug/L
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.320	ug/L

CAS#	Surrogate	Spike Added	Found	Units	% Recovery	Limits
19719-28-9	DCAA	4	7.38	ug/L	185	37 - 140

RESULTS REPORTED ON A WET WEIGHT BASIS

Certificate of Analysis

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

8081A, Pesticides

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/18/2003 09:00	261384	3510C	1	08/18/2003 23:05	DLB	261467

CAS#	Parameter	Result	RDL	MDL	Units
72-54-8	4,4'-DDD	ND	0.100	0.057	ug/L
72-55-9	4,4'-DDE	ND	0.100	0.021	ug/L
50-29-3	4,4'-DDT	ND	0.100	0.030	ug/L
309-00-2	Aldrin	ND	0.050	0.01	ug/L
60-57-1	Dieldrin	ND	0.100	0.026	ug/L
959-98-8	Endosulfan I	ND	0.050	0.017	ug/L
33213-65-9	Endosulfan II	ND	0.100	0.022	ug/L
1031-07-8	Endosulfan sulfate	ND	0.100	0.025	ug/L
72-20-8	Endrin	ND	0.100	0.032	ug/L
7421-93-4	Endrin aldehyde	ND	0.100	0.058	ug/L
53494-70-5	Endrin ketone	ND	0.100	0.030	ug/L
76-44-8	Heptachlor	ND	0.050	0.020	ug/L
1024-57-3	Heptachlor epoxide	ND	0.050	0.011	ug/L
72-43-5	Methoxychlor	ND	0.500	0.065	ug/L
8001-35-2	Toxaphene	ND	5.00	0.550	ug/L
319-84-6	alpha-BHC	ND	0.050	0.013	ug/L
5103-71-9	alpha-Chlordane	ND	0.050	0.017	ug/L
319-85-7	beta-BHC	ND	0.050	0.038	ug/L
319-86-8	delta-BHC	ND	0.050	0.013	ug/L
58-89-9	gamma-BHC (Lindane)	ND	0.050	0.016	ug/L
5103-74-2	gamma-Chlordane	ND	0.050	0.015	ug/L

CAS#	Surrogate	Spike Added	Found	Units	% Recovery	Limits
877-09-8	Tetrachloro-m-xylene	.5	.352	ug/L	70	45 - 148
2051-24-3	Decachlorobiphenyl	.5	.501	ug/L	100	34 - 135

RESULTS REPORTED ON A WET WEIGHT BASIS

Certificate of Analysis

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

SW-846 7470A Mercury

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/18/2003 09:00	261396	SW-846 7470A	1	08/18/2003 15:44	MAP	261449

CAS#	Parameter	Result	RDL	MDL	Units
7439-97-6	Mercury	0.00008 B u	0.00020	0.00003	mg/L

RESULTS REPORTED ON A WET WEIGHT BASIS

- Method Blank -
Bjll 8/21/03

Certificate of Analysis

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

SW-846 6010B ICP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/18/2003 09:00	261395	3010A	1	08/19/2003 13:27	MAP	261464

CAS#	Parameter	Result	RDL	MDL	Units
7429-90-5	Aluminum	0.021 B	0.20	0.016	mg/L
7440-36-0	Antimony	ND	0.0060	0.0046	mg/L
7440-38-2	Arsenic	ND	0.010	0.0015	mg/L
7440-39-3	Barium	0.032 B	0.20	0.00050	mg/L
7440-41-7	Beryllium	ND	0.0040	0.00020	mg/L
7440-43-9	Cadmium	ND	0.0050	0.00020	mg/L
7440-70-2	Calcium	21.2	5.00	0.032	mg/L
7440-47-3	Chromium	0.00068 B	0.0050	0.00050	mg/L
7440-48-4	Cobalt	ND	0.050	0.00070	mg/L
7440-50-8	Copper	ND	0.025	0.0026	mg/L
7439-89-6	Iron	1.66	0.10	0.011	mg/L
7439-92-1	Lead	ND	0.0030	0.0016	mg/L
7439-95-4	Magnesium	2.09 B	5.00	0.025	mg/L
7439-96-5	Manganese	0.061	0.015	0.00020	mg/L
7440-02-0	Nickel	ND	0.040	0.0025	mg/L
7440-09-7	Potassium	0.69 B	5.00	0.049	mg/L
7782-49-2	Selenium	ND	0.0050	0.0047	mg/L
7440-22-4	Silver	ND	0.0050	0.00040	mg/L
7440-23-5	Sodium	11.0	5.00	0.17	mg/L
7440-28-0	Thallium	ND	0.0020	0.0012	mg/L
7440-62-2	Vanadium	ND	0.050	0.0011	mg/L
7440-66-6	Zinc	0.44	0.020	0.0052	mg/L

RESULTS REPORTED ON A WET WEIGHT BASIS

Certificate of Analysis

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

1010 Flashpoint

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	08/18/2003 16:00	MDT	261442

CAS#	Parameter	Result	RDL	MDL	Units
000000-01-3	FlashPoint	>212	50	50	Deg F

RESULTS REPORTED ON A WET WEIGHT BASIS

Certificate of Analysis

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20308180301	08TATK1Q303	Water	08/15/2003 16:30	08/16/2003 11:15

4500 H+B Water - pH

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	08/18/2003 08:40	OLT	261414

CAS#	Parameter	Result	RDL	MDL	Units
pH	pH	8.20	1.00	1.00	pH unit

RESULTS REPORTED ON A WET WEIGHT BASIS

Appendix B

Waste Disposal Documentation



ENVIRONMENTAL REMEDIATION SERVICES, INC.

Tuesday, September 02, 2003

Steve Bivone
CH2MHill Constructors, Inc.
115 Perimeter Center Place NE, Suite 700
Atlanta, GA 30346

RE: NAF Key West Waste Manifests

Dear Mr. Bivone:

Please find attached the original waste manifests documenting the disposal of non-hazardous waste water from NAF Key West (Truman Annex). This waste was generated from the underground storage tank closure and monitoring well installation at the Truman Annex during the week of August 25, 2003.

ERS appreciates the opportunity to provide your company with quality environmental services. If you have any questions concerning this document please call me @ (904) 791-9992.

Sincerely,

Jayson Smith,
General Manager

Attached: Original waste manifests

cc: Colleen Kurtz, CCI



ENVIRONMENTAL REMEDIATION SERVICES, INC.

Thursday, August 21, 2003

Steve Bivone
CH2MHill Constructors, Inc.
115 Perimeter Center Place NE, Suite 700
Atlanta, GA 30346

RE: Waste Manifest NAS Key West

Dear Mr. Bivone:

Please find the attached original waste manifest documenting the disposal of non-hazardous waste water from NAS Key West. This waste was generated from the AFVR services completed at NAS Key West- Trumbo Point and Truman Annex during August 11th through August 15th of 2003.

ERS appreciates the opportunity to provide your company with quality environmental services. If you have any questions concerning this document please call me @ (904) 791-9992.

Sincerely,

Jayson Smith,
General Manager

Attached: waste manifest

ERS Job #4132

**NON-HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.
Not Required

Manifest Document No.
03127

2. Page 1
of 1

3. Generator's Name and Mailing Address
**(TANK FARM) Naval Air Station (Trumbo Point)
Commanding Officer, NAS**

4. Generator's Phone (305) 293-2583
Key West, FL 33040-9001

5. Transporter 1 Company Name
Environmental Remediation Svc. 6. US EPA ID Number
FLD984261412

A. Transporter's Phone
904/791-9992

7. Transporter 2 Company Name 8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Industrial Water Services
1640 Talleyrand Ave.
Jacksonville, Florida 32206 10. US EPA ID Number
FLD981928484

C. Facility's Phone
904/354-0372

11. Waste Shipping Name and Description	12. Containers		13. Total Quantity	14. Unit Wt/Vol
	No.	Type		
a. Non-Hazardous Petroleum Contact Water N/A	001	TT	008.75	G
b. N/A				
c. N/A				
d. N/A				

D. Additional Descriptions for Materials Listed Above
This PCW does not contain levels of hazardous constituents above those found in the source of the PCW.

E. Handling Codes for Wastes Listed Above
N/A

15. Special Handling Instructions and Additional Information

ERS Project No. 4132
ERS Manifest No: 03127

IWS Approval# 02206

413207

Emergency Contact: Environmental Remediation Services, Inc. (904)791-9992

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

Printed/Typed Name: Patricia A. McNeill
Signature: Patricia A. McNeill
Month Day Year: 08/11/03

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Tommy J. Ethridge
Signature: [Signature]
Month Day Year: 08/11/03

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

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Jeff [Signature]
Signature: [Signature]
Month Day Year: 8/11/03

Copy with invoice
ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.
Not Required

Manifest Document No.
03133

2. Page 1 of 1

3. Generator's Name and Mailing Address: **NAVY AIR STATION - TRUMAN ANNEX**

**COMMANDING OFFICER NAS
KEY WEST, FL. 33040-9001**

4. Generator's Phone: **305 293-2583**

5. Transporter 1 Company Name: **Environmental Remediation Svc.**

6. US EPA ID Number: **F L D 9 8 4 2 6 1 4 1 2**

A. Transporter's Phone: **904/791-9992**

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

**Industrial Water Services
1640 Talleyrand Ave.
Jacksonville, Florida 32206**

10. US EPA ID Number

F L D 9 8 1 9 2 8 4 8 4

C. Facility's Phone

904/354-0372

11. Waste Shipping Name and Description

12. Containers
No. Type

13. Total Quantity

14. Unit Wt/Vol

a. **Non-Hazardous Petroleum Contact Water**

001

TT

03011

G

b. **N/A**

c. **N/A**

d. **N/A**

D. Additional Descriptions for Materials Listed Above

This PCW does not contain levels of hazardous constituents above those found in the source of the PCW.

E. Handling Codes for Wastes Listed Above

N/A

15. Special Handling Instructions and Additional Information

ERS Project No. 4481

IWS Approval# 022206

~~ERS Manifest No:~~

Emergency Contact: Environmental Remediation Services, Inc. (904)791-9992

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

Printed/Typed Name

MIKE SKINNER

Signature

Mike Skinner

Month Day Year

08 | 27 | 03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

T. McGhee

Signature

T. McGhee

Month Day Year

08 | 27 | 03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

.

19. Discrepancy Indication Space

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

Printed/Typed Name

AL Bots

Signature

AL Bots

Month Day Year

8 | 29 | 03

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. Not Required

Manifest Document No. 03134

2. Page 1 of 1

3. Generator's Name and Mailing Address **NAVAL AIR STATION-TRUMBO PT PIER D-3**
COMMANDING OFFICER NAS
KEY WEST, FL. 33046-9001

4. Generator's Phone (305) 293-2583

5. Transporter 1 Company Name Environmental Remediation Svc.

6. US EPA ID Number F L D 9 8 4 2 6 1 4 1 2

A. Transporter's Phone 904/791-9992

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address Industrial Water Services
 1640 Talleyrand Ave.
 Jacksonville, Florida 32206

10. US EPA ID Number F L D 9 8 1 9 2 8 4 8 4

C. Facility's Phone 904/354-0372

11. Waste Shipping Name and Description

12. Containers No. Type

13. Total Quantity

14. Unit Wt/Vol

a. Non-Hazardous Petroleum Contact Water

001

TT

00471

G

b. N/A

c. N/A

d. N/A

D. Additional Descriptions for Materials Listed Above
 This PCW does not contain levels of hazardous constituents above those found in the source of the PCW.

E. Handling Codes for Wastes Listed Above
 N/A

15. Special Handling Instructions and Additional Information

ERS Project No. 4481
 ERS Manifest No: 03134

IWS Approval# 019347

Emergency Contact: Environmental Remediation Services, Inc. (904) 791-9992

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

Printed/Typed Name MIKE SKINNER

Signature Mike Skinner

Month Day Year 08 28 03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name Tommy J. Ehrig

Signature [Signature]

Month Day Year 08 28 03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

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

Printed/Typed Name [Signature]

Signature [Signature]

Month Day Year 08 28 03

GENERATOR

TRANSPORTER

FACILITY



ENVIRONMENTAL REMEDIATION SERVICES, INC.

October 22, 2003

Mr. Steve Bivone
Project Manager
CH2Mhill Constructors, Inc.
115 Perimeter Center Place NE, Suite 700
Atlanta, GA 30346

Re: Waste Manifest Copies

Dear Mr. Bivone,

Please find attached original manifest # 04004 and 04005 documenting the disposal of Non-Hazardous Petroleum Impacted Soil transported to Central Disposal in Pompano Beach, Fl. on October 10, 2003. This waste was generated at the US Coast Guard / Naval Air Station in Key West, Florida.

ERS appreciates the opportunity to provide your company with quality environmental services. If you have any questions regarding this waste disposal please call me at (904) 791-9992.

Sincerely,

Jayson Smith,
General Manager

Attached: waste manifests

Waste Management Inc. - Florida
Industrial Waste Service Center
3000 N.W. 48TH Street
Pompano Beach, FL 33373



A Waste Management Company

NON-HAZARDOUS MANIFEST

JWC
Manifest # 04004
SC No 132517

GENERATOR

TRANSPORTER

Generators US COAST GUARD/NAVAL AIR STATION
Address TRUMBO ROAD (P.O. Box 9007)
KEY WEST, FL 33040-9001
Phone 305 293 2683 P.O.# 4819

Driver Name (Print) Josquin O'Hara
Truck Number 101

I hereby acknowledge that the above-described materials were received from the generator site were transported without incident to the destination listed below.

Generators Signature Patricia M. Neill

Driver Signature [Signature] Delivery Date 10/9/03
Weight 18CY

Description of Waste Materials	Profile Number	Account #	Total Quantity
PETROLEUM IMPACTED SOIL	KM 2227		

63980

DESTINATION

Site Name CENTRAL DISPOSAL
Address 2700 NW 48th STREET, POMPANO BEACH, FL 33073
Phone Number 954 977 9551

I hereby acknowledge receipt of the above-described materials.

Name of Authorized (Print) _____

Signature [Signature] Receipt Date 10/10/03

WHITE - GENERATOR YELLOW - LANDFILL PINK - LANDFILL GOLD - TRANSPORTER

Copy made for file

Waste Management Inc. - Florida
 Industrial Waste Service Center
 3000 N.W. 48th Street
 Pompano Beach, FL 33373



A Waste Management Company

NWC
NO 29

NON- HAZARDOUS MANIFEST

manifest # 04005
 SC No 132518

GENERATOR

TRANSPORTER

Generators US COAST GUARD/NAVAL AIR STATION
 Address TRUMBO ROAD (P.O. Box 4007)
KEY WEST, FL 33040-4007
 Phone 305 293 2683 P.O.# 4819
 Generators Signature *[Signature]*

Driver Name (Print) JESAR FOMINLER
 Truck Number 332
 I hereby acknowledge that the above-described materials were received from the generator site were transported without incident to the destination listed below.
 Driver Signature *[Signature]* Delivery Date 10/9/03
 Weight 18CY

Description of Waste Materials	Profile Number	Account #	Total Quantity
PETROLEUM IMPACTED SOIL	KM 2227		

DESTINATION

Site Name CENTRAL DISPOSAL
 Address 2700 NW 48th STREET, POMPANO BEACH, FL 33073
 Phone Number 954 977 9551

71860
27960
41900 *(20.95)*

I hereby acknowledge receipt of the above-described materials.

Name of Authorized (Print)
 WHITE - GENERATOR YELLOW - LANDFILL

Signature *[Signature]* Receipt Date 10/10/03
 PINK - LANDFILL GOLD - TRANSPORTER

copy made for file

Appendix C

FDEP Forms



DEPARTMENT OF THE NAVY

NAVAL AIR STATION
PO BOX 9001
KEY WEST FL 33040-9001

5090
Ser N4L/0647
08 October 2003

Florida Department of Environmental Protection
Storage Tank Registration Department
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Enclosed are Florida Department of Environmental Protection (FDEP) forms Florida Administrative Code (FAC) 62-761.900(2) Storage Tank Registration Form and FAC 62-761.900(1) Discharge Report Form for Underground Storage Tank #5 at Truman Annex Naval Complex. These forms are being submitted to your office in compliance with FAC 62-761 for a newly discovered Underground Storage Tank.

Naval Air Station, Key West is requesting funds to perform a formal Site Assessment Report (SAR) relative to suspected contamination in the soils and groundwater adjacent to this tank. Initial groundwater sample results indicate Benzene constituents above Florida State Target Levels and demonstrate the need for further investigation.

If you have any questions or require more information, please contact our Remedial Project Manager, Robert Courtright, at (305) 293-2881.

Sincerely,

A handwritten signature in black ink, appearing to read "Luis Rioseco, Jr.", written over a horizontal line.

LUIS RIOSECO, JR.
Lieutenant, U.S. Navy
Public Works Officer
Acting
By direction of
the Commanding Officer

Enclosure: (1) FDEP Form 62-761.900(2)
(2) FDEP Form 62-761.900(1)

Copt to:
Florida Department of Health (Charles Trebesch)
FDEP, Marathon, (Ed Russell)



Florida Department of Environmental Protection
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DEP Form # 62-761.900(2)
Form Title <u>Storage Tank Registration Form</u>
Effective Date <u>July 13, 1998</u>
DEP Application No. _____
(Filed in by DEP)

Storage Tank Facility Registration Form

Submit a completed form for the facility when registration of storage tanks or compression vessels is required by Chapter 376.303, Florida Statutes

Please review *Registration Instructions* before completing the form.

Please check all that apply	<input checked="" type="checkbox"/> New Registration	<input type="checkbox"/> New Owner	<input type="checkbox"/> New Tanks
	<input type="checkbox"/> Facility Info Update/Correction	<input type="checkbox"/> Owner Info Update/Correction	<input type="checkbox"/> Tank Info Update/Correction

A. FACILITY INFORMATION

County: <u>Monroe</u>	DEP Facility ID: <u>Pending</u>
-----------------------	---------------------------------

Facility Name: Naval Air Station-Truman Annex
 Facility Address: P.O. Box 9007 City: Key West Zip: 33040
 Facility Contact: Robert Courtright Business Phone: (305) 293-2881
 Facility Type(s): F NAICS Code: 00231 Financial Responsibility: US Government

24 Hour Emergency Contact: <u>Robert Courtright</u>	Emergency Phone: <u>(305) 293-2881</u>
-----------------------------------------------------	----------------------------------------

B. RESPONSIBLE PERSON INFORMATION - Identify Individual(s) or Business(es) responsible for storage tank management, fueling operations, and/or cleanup activities at the facility location named above. Provide additional information in an attachment if necessary.

Name: <u>Naval Air Station-Truman Annex</u>	Facility - Responsible Person Relation Type:	Effective Date
Mail address: <u>P.O. Box 9007</u>	<input checked="" type="checkbox"/> Facility Account Owner (pays fees)	
City, ST, Zip: <u>Key West, FL 33040</u>	Facility Account Owner information must be provided when the facility contains active or out of service storage tanks on site.	
Contact: <u>Robert Courtright</u>	STCM Account Number (if known)	<u>N/A</u>
Telephone: <u>(305) 293-2881</u>	Identify other appropriate facility relationships for this party: <input checked="" type="checkbox"/> Facility Owner/Operator <input type="checkbox"/> Property Owner <input type="checkbox"/> Storage Tank Owner	

Name: <u>Naval Air Station-Truman Annex</u>	Other owner, relationship type(s)	Effective Date
Mail address: <u>P.O. Box 9007</u>	<input type="checkbox"/> Facility Owner/Operator	
City, ST, Zip: <u>Key West, FL 33040</u>	<input type="checkbox"/> Property Owner	
Contact:	<input checked="" type="checkbox"/> Storage Tank Owner	<u>08/28/03</u>
Telephone:	<input type="checkbox"/> Other:	

C. TANK/VESSEL INFORMATION - Complete one row for each storage tank or compression vessel system located at this facility.

Tank ID	TV	AU	Capacity	Installed	Content	Status/Effective Date	Construction	Piping	Monitoring
UST #05	T	U	3,000	U/K	U/K	A 08/27/03	C	Y	X/Y

Certified Contractor (performing tank installation or removal) Charles Morris Owens DBPR License No.: PCC 048415

Registration Certification: To the best of my knowledge and belief, all information submitted on this form is true, accurate, and complete.
Charles Morris Owens, President Signature Charles Morris Owens Date 9/12/03

- DEP 62-761.900(2)
- | | | | | | | |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Northwest District
160 Governmental Center Blvd.
Pensacola, FL 32501
850-395-8360 | Northeast District
7825 Baymeadows Way,
Suite B200
Jacksonville, FL 32256
904-448-4300 | Central District
3319 Maguire Blvd.,
Suite 232
Orlando, FL 32803
407-894-7555 | Southwest District
3804 Coconut Palm Drive
Tampa, FL 33619
813-744-6100 | Southeast District
400 North Congress Ave.,
Fort Myers, FL 33901
941-332-6975 | South District
2295 Victoria Ave.,
Suite 364
Fort Myers, FL 33901
941-332-6975 | Marathon Branch Office
2796 Overseas Hwy.,
Suite 221
Marathon, FL 33050
305-289-2310 |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|



Discharge Report Form

PLEASE PRINT OR TYPE

DEP Form # 62-761.900(1)
Form Title Discharge Report Form
Effective Date: July 13, 1998

Instructions are on the reverse side. Please complete all applicable blanks

1. Facility ID Number (if registered): Pending 2. Date of form completion: 10/01/03

3. General information
Facility name or responsible party (if applicable): Naval Air Station-Truman Annex
Facility Owner or Operator, or Discharger: Naval Air Station-Key West
Contact Person: Robert Courtright Telephone Number: (305) 293-2881 County: Monroe
Facility or Discharger Mailing Address: P.O. Box 9007
Location of Discharge (street address): Truman Annex Security Gate
Latitude and Longitude of Discharge (if known): _____

4. Date of receipt of test results or discovery of confirmed discharge: 09/27/03 month/day/year 5. Estimated number of gallons discharged: Unknown

6. Discharge affected: Air Soil Groundwater Drinking water well(s) Shoreline Surface water (water body name)

7. Method of discovery (check all that apply)
 Liquid detector (automatic or manual) Internal inspection Closure/Closure Assessment
 Vapor detector (automatic or manual) Inventory control Groundwater analytical samples
 Tightness test Monitoring wells Soil analytical tests or samples
 Pressure test Automatic tank gauging Visual observation
 Statistical Inventory Reconciliation Manual tank gauging Other _____

8. Type of regulated substance discharged: (check one)
 Unknown Used/waste oil Jet fuel Heating oil New/lube oil
 Gasoline Aviation gas Diesel Kerosene Mineral acid
 Hazardous substance - includes CERCLA substances from USTs above reportable quantities, pesticides, ammonia, chlorine, and derivatives
(write in name or Chemical Abstract Service (CAS) number) _____
 Other Believed to be Gasoline

9. Source of Discharge: (check all that apply)
 Dispensing system Pipe Barge Pipeline Vehicle
 Tank Fitting Tanker ship Railroad tankcar Airplane
 Unknown Valve failure Other Vessel Tank truck Drum
 Other Believed to be System Piping

10. Cause of the discharge: (check all that apply)
 Loose connection Puncture Spill Collision Corrosion
 Fire/explosion Overfill Human error Vehicle Accident Installation failure
 Other Unknown

11. Actions taken in response to the discharge: N/A

12. Comments: Found during a Closure-In-Place of a UST.

13. Agencies notified (as applicable):
 State Warning Point 1-800-320-0519 National Response Center 1-800-424-8802 Florida Marine Patrol (800) 342-5367 Fire Department. DEP (district/person) County Tanks Program

14. To the best of my knowledge and belief, all information submitted on this form is true, accurate, and complete.
Robert Courtright
Printed Name of Owner, Operator or Authorized Representative, or Discharger

Signature of Owner, Operator or Authorized Representative, or Discharger



Underground Storage System Installation and Removal Form for Certified Contractors

Pollutant Storage Systems Contractor as defined in Section 489.113, Florida Statutes (certified contractors as defined in Section 62-761.200, Florida Administrative Code) shall use this form to certify that the installation, replacement or removal of the underground storage tank system(s) located at the address listed below was performed in accordance with Department Reference Standards. This includes system components such as dispenser liners, piping sumps, and overfill protection devices.

General Facility Information

Facility Name: <u>Naval Air Station-Truman Annex</u>	DEP Facility Identification No. : <u>Pending</u>
Street Address (physical location): <u>Truman Annex Security Gate</u>	
County: <u>Monroe</u>	Telephone #: <u>(305) 293-2881</u>
Owner Name: <u>Naval Air Station-Truman Annex</u>	Telephone #: <u>()</u>
Owner Address: <u>P.O. Box 9007 Key West, FL 33040</u>	

Storage Tank System Information

Number of Tanks Installed: <u>N/A</u>	Number of Tanks Removed: <u>One</u>
Date Work Initiated: <u>08/27/03</u>	Date Work Completed: <u>08/28/03</u>
Tank(s) Manufactured by: <u>Unknown</u>	
Description of work Completed: <u>Closed Tank in Place; Cleaned Tank & Installed Flowable Fill</u>	

Certification

I hereby certify and attest that I am familiar with the facility that is registered with the Florida Department of Environmental Protection; that to the best of my knowledge and belief, the storage tank system installation, replacement or removal at this facility was conducted in accordance with Chapter 489, Florida Statutes, Section 376.303, Florida Statutes, and Chapter 62-761, Florida Administrative Code, and its adopted reference standards and documents-for underground storage tank systems.

Charles M. Owens
(Type or Print)
Certified Pollutant Tank Contractor Name

PCC 048415
PSSC Number
Pollutant Storage Systems
Contractor License Number

Charles M. Owens
Certified Tank Contractor Signature

9/12/03
Date

Jayson Smith
Field Supervisor Name

9/12/03
Date

The owner or operator of the facility must register the tanks with the Department upon completion of the installation. The installer must submit this form to the County no more than 30 days after the completion of installation, replacement, or removal of a storage tank system.



" DRAFT " REGULATIONS PENDING

Storage Tank System Leak Autopsy Report Form

Please check all blocks that apply for the entire form

Site Information

Facility Name	Facility ID Number	County	Owner/Operator Name
NAVAL AIR STATION TRUMAN ANNEX -		MONROE	NAVAL AIR STATION KEY WEST

System Information (At the Time of Release)

Tank

Tank Type	
<input checked="" type="checkbox"/>	Underground Storage Tank
<input type="checkbox"/>	Shop-fabricated Aboveground Storage Tank
<input type="checkbox"/>	Field-erected Aboveground Storage Tank

Tank Installation Date:	<u>U/R</u>	(Note if Unknown)
Tank Manufacturer Name:	<u>U/R</u>	(Note if Unknown)
Piping Installation Date	<u>U/R</u>	(Note if Unknown)
Piping Manufacturer Name:	<u>U/R</u>	(Note if Unknown)

System Information

Please check all blocks that apply for the entire form

USTs

Material	Other Attributes	Ancillary Equipment
<input type="checkbox"/>	Galvanized Steel	Sacrificial Anodes
<input type="checkbox"/>	Fiberglass	Impressed Current System
<input type="checkbox"/>	Composite	Internal Lining
<input checked="" type="checkbox"/>	Unprotected Steel	Single Wall
<input type="checkbox"/>	Other Approved	Double Wall (same material)
<input type="checkbox"/>	Concrete	Double Wall (different material)
<input type="checkbox"/>	Polyethylene	Secondary Containment with a liner
<input type="checkbox"/>	Unknown	Other Approved (Tank Bladders, etc.)
<input type="checkbox"/>		Compartmented
<input type="checkbox"/>		Unknown

ASTs - N/A

Material	Other Attributes	Ancillary Equipment
<input type="checkbox"/>	Steel	Shop-Fabricated
<input type="checkbox"/>	Concrete	Field-Erected
<input type="checkbox"/>	Polyethylene	Synthetic liner beneath tank (SC)
<input type="checkbox"/>	Approved Synthetic	Concrete beneath tank (SC)
<input type="checkbox"/>	Other Approved	Double Wall
<input type="checkbox"/>	Cut and Cover	Internal Secondary Containment
<input type="checkbox"/>	Unknown	Other Approved Secondary Containment
<input type="checkbox"/>		Single Wall
<input type="checkbox"/>		Impressed Current System
<input type="checkbox"/>		Synthetic Dike Field Liner
<input type="checkbox"/>		Concrete Dike Field Liner
<input type="checkbox"/>		Other Approved Dike Field Liner
<input type="checkbox"/>		Secondary Containment around pumps/valves
<input type="checkbox"/>		No Dike Field Secondary Containment

Piping - AST or UST

Material	Other Attributes	Ancillary Equipment
----------	------------------	---------------------

	Galvanized Steel	Sacrificial Anodes		Dispenser Sump(s)
	External Coating	Impressed Current System		No Dispenser Sumps
	Fiberglass	Single Wall		Unknown
	Composite	Double Wall (same material)		Piping Sump(s)
	Unprotected Steel	Double Wall (different material)		No Piping Sumps
	Flexible Synthetic	Secondary Containment with a liner		Unknown
	Other Approved	Other Approved Secondary Containment		Single check valve
X	Unknown	Box-trench Liner		Foot Valves
		Pressurized		Unknown
		Not-Pressurized except when in use		Mechanical Line Leak Detector (LLD)
		Suction		Electronic LLD
		Manifolded	X	Unknown
		Bulk Product		No Line Leak Detector
		Small Diameter		
		Hydrant System		
		Aboveground, no contact with soil		
		Over Surface Water		

Leak Detection

	UST	AST	Piping - U/K
	Internal Interstitial Monitoring	Interstitial Monitoring	Interstitial Monitoring
	Interstitial Monitoring within a liner system	Groundwater Monitoring Wells	Groundwater Monitoring Wells
	Groundwater Monitoring Wells	Vapor Monitoring Wells	Vapor Monitoring Wells
	Vapor Monitoring Wells	Vapor Monitoring Probes	Vapor Monitoring Probes
	SIR	Tracer Technology	Tracer Technology
	ATG	Visual Inspections	Visual Inspections
	Tank Tightness Testing	Cable Systems	Cable Systems
	Inventory Reconciliation	Fiber-optic Technologies	Pressure Tests (Bulk)
	Manual Tank Gauging	SPCC Plans	Pressure Tests (Small)
	Visual Inspections	Tank Shell Monitoring System	Mechanical Line Leak Detectors
	Other Approved Methods	Other Approved Methods	Automatic Line Leak Detectors
X	NONE		Other Approved Methods

Release Information

Date of receipt of test results or discovery of confirmed discharge: 8/27/03 month/day/year
 Estimated number of gallons discharged: U/K Latitude and Longitude _____

Discharge affected

	Air	Drinking water well(s)
	Soil	Surface water
X	Ground water	Other _____

Type of regulated substance discharged: (check one)

	Gasoline	Used/waste oil
	Diesel	New/lube oil
	Kerosene	Mineral acid
	Jet fuel	Petroleum Contact Water
	Aviation gas	Pesticides
	Gasohol	Chlorine Compounds
	Emergency Generator Diesel Fuel	Ammonia Compounds
	Heating oil	Petroleum Derivative Products
	Hazardous substance	Other
	Grades 5 & 6 Residual Oils	X Unknown BELIEVE TO BE GASOLINE

Method of Discovery of the Discharge

Leak Detection Methods *****If Leak Detection, specify method:**

<input checked="" type="checkbox"/>	Closure-in-Place	Inventory Reconciliation	Mechanical LLD
	Removal	Manual Tank Gauging	Electronic LLD
	Installation or Upgrade	Groundwater Monitoring	Visual Inspection of ASTs
	Property Transfer		
	Visual	Vapor Monitoring	Visual Inspection of USTs
	Olfactory	Secondary/Interstitial Monitoring	Tracer technologies
	Water in Tank	Annual or Regularly Scheduled Tank Tightness Testing	Bulk Product Piping Pressure Tests
	Tank or Line Tightness Testing Performed for other Reasons	Annual or Regularly Scheduled Line Tightness Testing	Fiber-Optic or Cable Technologies
	Internal Inspection	SIR	Other Approved Methods
	Unknown	ATG	Vapor Monitoring Probes
	Other _____	Analytical tests or samples	Other _____

Did the method of Leak Detection relied on for compliance purposes fail to detect the release? (Y,N, U) *N/A*
If so, what was the method relied on for compliance purposes?

Source of Discharge:

<input checked="" type="checkbox"/>	UST	Shop-Fabricated AST
	Small Diameter Piping	Field-erected AST
	Flex-Connector	Bulk Product Piping
	UST Vent Line	Pipeline
	UST Fill Pipe	Valves (ASTs)
	UST Turbine Pump	Pump (ASTs)
	Dispenser	Barge or Vessel
	Delivery Vehicle	Bulk Product Dock Piping (connected to ASTs)
	UST Electronic/Mechanical Line Leak Detector	Hydrant Pit (AST systems)
<input checked="" type="checkbox"/>	Other <i>BELIEVE TO BE SYSTEM PIPING</i>	AST Vents

Cause of the Discharge

	Loose Component (filter, piping connection, bung, etc)	Improper Installation
	Corrosion	Vehicle Accident
	Puncture	Physical or Mechanical Damage
	Material Failure (crack, split, etc.)	Human Error
	Material Incompatibility	Vandalism or Malicious Intent
	Other _____	Fire/Explosion
		Spill
		Overfill
		Weather
	<input checked="" type="checkbox"/> Unknown	

Release Identified by:

	Owner/Operator	Service Contractor	Local Government Inspector
	Third Party	State Inspector	<input checked="" type="checkbox"/> Other <i>CLOSURE CONTRACTOR</i>

Additional Information: (Attach Photos if available)

SIGNATURE: *Don Baird*

AFFILIATION: *CH2M HILL - C.C.I*
NASKW - RAC CONTRACTOR