Final Report for Interim Removal Activities at Underground Storage Tank 61 Facility ID #9-089074 Building 1161 Fort Stewart, Georgia

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ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAP	Corrective Action Plan
CLP	Contract Laboratory Program
DNR	Department of Natural Resources
DRO	diesel range organic
EPA	U.S. Environmental Protection Agency
ft	foot/feet
GA	Georgia
GRO	gasoline range organic
GUST	Georgia Division of Underground Storage Tanks
IDW	investigation derived waste
IRA	interim removal activity
J	estimated value
LCS	laboratory control sample
MS	matrix spike
MTBE	methyl tertbutyl ether
NA	not applicable
NL	not listed
NRC	no regulatory criteria
ORC®	Oxygen Release Compound [®]
РАН	polynuclear aromatic hydrocarbon
ppm	parts per million
psi	pounds per square-inch
QC	quality control
RPD	relative percent difference
SAIC	Science Applications International Corporation
STEP	Solutions To Environmental Problems, Inc.
STL	soil threshold level
TPH	total petroleum hydrocarbons
U	not detected
µg/kg	micrograms per kilogram
μg/L	micrograms per liter
USACE	U.S. Army Corps of Engineers
UST	underground storage tank
VOC	volatile organic compound

EXECUTIVE SUMMARY

Solutions To Environmental Problems, Inc. (STEP), under contract with the U. S. Army Corps of Engineers, Savannah District, has completed the interim removal activities (IRAs) at Underground Storage Tank (UST) 61 (Facility ID #9-089104, Building 1161), Fort Stewart, Georgia. This work was accomplished in accordance with *Final Work Plan for Interim Removal Activities at Underground Storage Tank 61, Facility ID #9-089104, Building 1161, Fort Stewart, Georgia* (STEP, July 2006), hereinafter referred to as the work plan.

Former UST 61 was near Building 1161. The UST was removed in August 1995; however, subsequent groundwater monitoring of wells at the site has indicated that free-phase product is present on the groundwater at well 22-07 and requires remediation. The scope of work for this project included removal of well 22-07 at the UST 61 site, removal of contaminated soil/free product around the well, and installation of a new pre-packed well to replace the well removed. After excavation was complete, soil samples were obtained, Oxygen Release Compound[®] was applied to the excavation floor and sidewalls, and a new 4-inch diameter pre-packed well was installed to replace well 22-07, which was removed. The excavation was backfilled using aggregate stone to provide a porous media to promote infiltration of groundwater and any free product into the new well. All investigation derived waste was properly disposed in accordance with state and federal regulations.

As stated previously, soil samples were obtained from the bottom and the sidewalls of the excavation. These samples were shipped to Empirical Laboratory in Nashville, Tennessee where they were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tertbutyl ether; polynuclear aromatic hydrocarbons; total petroleum hydrocarbons (TPH) diesel range organics, and TPH gasoline range organics. DataChek, LLC validated the analytical results in accordance with the approved work plan. The validation report stated that, overall, the data were of good quality, and all measurements required to satisfy the project quality control objectives (precision, accuracy, representativeness, comparability, and completeness) were met.

The analytical results for the samples were compared to the estimated laboratory detection limits contained in *Underground Storage Tank (UST) Closure Guidance Document, Petroleum Releases* (GDNR, November 2001) (See Table 2, "Laboratory Estimated Quantitation Limits for Soil and Groundwater Samples"), hereinafter GUST-9, and the soil threshold levels contained in *Rules of Georgia Department of Natural Resources, Environmental Protection Division* Chapter 391-3-15.09(3)(d),

"Release Response and Corrective Action for UST Systems Containing Petroleum, Amended," [See Table A, Column 2 (Average or Higher Groundwater Pollution Susceptibility Area)]. Review of the analytical data and the results of this screening showed that, although the potential free-product layer surrounding the well has been removed, there are concentrations of contaminants in the soil exceeding acceptable levels. Specifically,

- Benzene was estimated in the primary sample from the excavation bottom (Sample 61-01) with an estimated concentration of 62 μ g/kg, which exceeded the Georgia soil threshold level, but benzene was not detected in the duplicate sample from the same location;
- Sample 61-03 (east sidewall) reported concentrations of naphthalene, phenanthrene, and pyrene that exceeded the GUST-9 estimated laboratory detection limits; and
- all of the samples reported concentrations of TPH above the GUST-9 estimated laboratory detection limits.

As required in the approved work plan, STEP will collect one groundwater sample from each of the three wells at UST 61 on a semiannual basis for a period of one year (two sampling events). Within six months of completion of the IRAs at UST 61, STEP will develop the newly installed monitoring well (Well 22-07R) and begin semiannual monitoring of the groundwater at UST 61. Groundwater samples will be collected from the newly installed well (22-07R) and from the two other groundwater monitoring wells (22-08 and 22-09) at the site. These groundwater samples will be analyzed for BTEX. The second sampling event will be conducted approximately six months after the first sampling event is completed. Upon completion of the semiannual monitoring, STEP will prepare an annual progress report.

1. INTRODUCTION

Solutions To Environmental Problems, Inc. (STEP), under contract with the U. S. Army Corps of Engineers (USACE), Savannah District, has completed the interim removal activity (IRA) at Underground Storage Tank (UST) 61 (Facility ID #9-089104, Building 1161), Fort Stewart, Georgia. This work was accomplished in accordance with *Final Work Plan for Interim Removal Activities at Underground Storage Tank 61, Facility ID #9-089104, Building 1161, Fort Stewart, Georgia* (STEP, July 2006), hereinafter referred to as the work plan.

2. SITE BACKGROUND

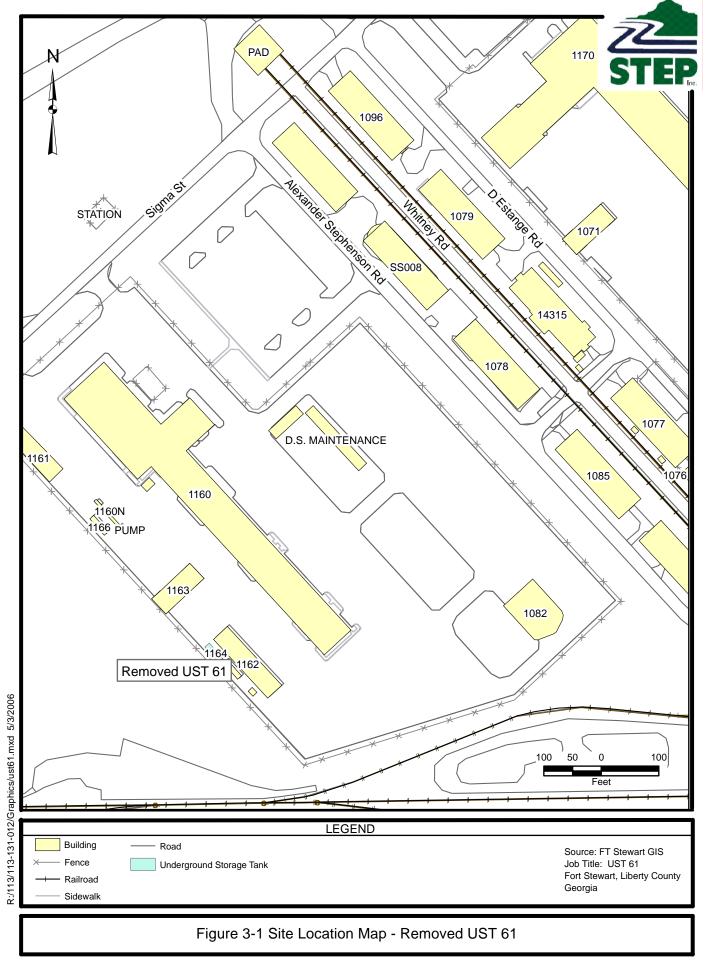
Fort Stewart is located in Liberty County, Georgia, approximately 40 miles southwest of Savannah, Georgia. The nearest city is Hinesville, approximately 1¹/₂ miles to the south. Former UST 61 (Georgia UST Facility ID #9-089104) was near Building 1161 at Fort Stewart, Georgia. The UST was removed in August 1995; however, subsequent groundwater monitoring of wells at the site has indicated that freephase product is present on the groundwater and requires remediation.

The purpose of this scope of work was to remove well 22-07 at the UST 61 site. The work scope also included removal of contaminated soil/free product around the well and installation of a new pre-packed well to replace the well removed. Soil samples were obtained once excavation was complete, and then Oxygen Release Compound[®] (ORC[®]) was applied to the excavation floor and sidewalls. The excavation was backfilled using aggregate stone to provide a porous media to promote infiltration of groundwater and any free product into the new well.

3. SITE DESCRIPTION

3.1 FORMER UST 61

UST 61, a 500 gallon used oil tank, was located near Building 1161 as shown on Figure 3-1. UST 61 was excavated and removed from the site in August 1995. A Corrective Action Plan (CAP) Part A investigation (1996-1997) and a CAP Part B investigation (2000) were conducted to determine the extent of petroleum contamination at the site.



2

Three monitoring wells and six soil borings were installed and samples were collected and analyzed during these investigations. The CAP B report recommended annual sampling of three monitoring wells (22-07, 22-08, and 22-09) for a period of one year to ensure the benzene concentration remained below the in-stream water quality standard of 71.28 µg/L. Fort Stewart has continued monitoring the water level and free product measurements in these wells. Sampling events conducted in 2000 and 2001 found no free product in any of these wells; however, during renewed sampling in 2005, free product was found in well 22-07, and heavy waste oil continues to seep into monitoring well 22-07 in small quantities. The Second Annual Monitoring Only Report dated November 2005 recommended that the monthly change out of absorbent socks and product level measurements be continued to remove the small amount of heavy waste oil that continues to seep into the well (USACE Savannah District, January 2006).

4. INTERIM REMOVAL ACTIVITIES

During the IRA at the former UST 61 site, STEP:

- removed monitoring well 22-07 and surrounding contaminated soil;
- sampled the excavation floor and each sidewall;
- applied ORC[®] the excavation floor and sidewalls;
- installed a new, pre-packed, groundwater monitoring well (22-07R) at the location of the removed well; and
- backfilled the excavation with aggregate rock.

Before excavation began, Fort Stewart personnel obtained utility clearances for the site. Figure 4-1 shows the excavation area.

4.1 IRA AT UST SITE 61

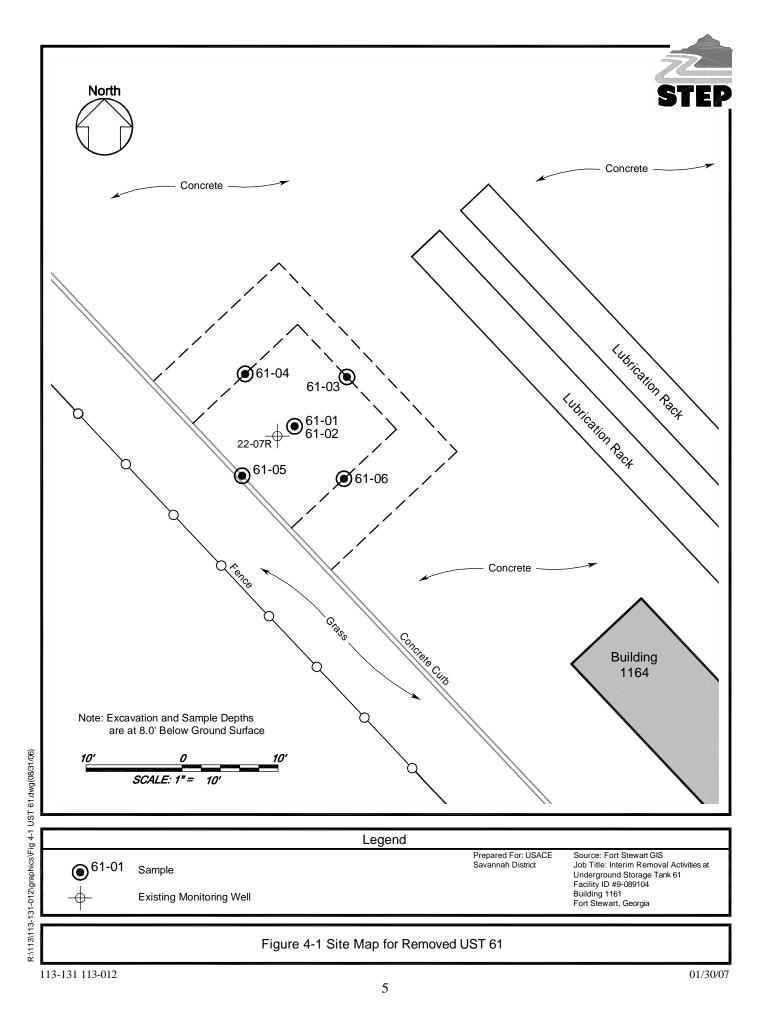
STEP conducted IRA field activities at UST Site 61 from July 18 through August 24, 2006. This IRA centered on well 22-07, which has consistently reported free product. Before excavation and removal activities began, STEP personnel used an interface probe to measure the depth of free product and the water level in the 1-inch diameter well. The depth measurement for the free product was 0.75 feet, and water level was measured to be 5.80 feet below ground surface (bgs). STEP personnel used a peristaltic pump to remove the free product, however, only a few ounces of black oily water were removed before only clear water was observed in the peristaltic pump's tubing. This product was absorbed using paper towels and disposed with personal protective equipment (gloves, etc.).

Well 22-07 was in a developed area covered with concrete. In accordance with the work plan, an 18-ft x 27-ft area centered on the well was measured, marked, and saw-cut. The concrete was sized and then removed with a backhoe and skid steer loader. Concrete debris was placed in nearby roll-off containers and then transported to and disposed at Sand Dollar Recycling in Savannah, Georgia.

After the concrete was removed, a backhoe was used to completely excavate and remove the remaining well components; thereby abandoning the well. Following removal of the well, the surrounding soil was examined. An approximately 5-foot thick layer of a red-brown sandy soil with pieces of debris (plastic sheeting, wood, cloth sand bags, tree limbs, roots, metal cans, reinforcing steel, and plastic piping) was found directly beneath the concrete. The next soil layer was dark gray, blackish, sandy soil with a petroleum odor that extended to a depth of 8 feet bgs. At this depth the soil was moist, and, at 8.3 feet bgs, the soil was a light gray sandy soil that was very moist, indicative of groundwater. Examination of the sidewalls revealed the dark gray zone was still present in all four sidewalls. Excavation ceased at 8.3 feet bgs, and approximately 69 cubic yards of soil were removed. Dimensions of the final excavation were 15 ft x 15 ft x 8.3-ft deep. All excavated soil material was placed in plastic-lined, construction debris roll-off containers with the well materials. This material was considered investigation derived waste (IDW) and was characterized and disposed accordingly. After excavation activities were completed, STEP sampled the four walls and the bottom of the excavation at the locations and depths shown on Figure 4-1.

After the samples had been obtained, STEP used a backhoe to excavate a sump near the center of the pit for installation of a new 4-inch diameter well, well 22-07R (well location is shown on Figure 4-1). The well, constructed with a 10-foot long pre-packed well screen and riser pipe, was positioned inside the excavation using suitable supports, and gravel backfill (#57 stone) was carefully placed around the well to above the well screen. The remaining backfill, also #57 stone, was placed using the backhoe, and the backfill was compacted using the bucket of the backhoe. The top 12 inches of the excavation were filled with 4,000 psi strength concrete, reinforced with #5 reinforcing steel placed at 24 inches on-center eachway. The #5 rebar was also doweled into the surrounding concrete surface to a depth of 6 inches and glued with epoxy. Concrete was placed using a vibratory screed to remove the entrained air and achieve full placement around the reinforcing steel. Finally, the concrete was brush-finished to provide a surface to blend with the surrounding concrete.

Appendix A contains photographic documentation of the IRA activities at UST Site 61.



The newly installed well (22-07R) had a total depth of 11.08 feet below the top of the concrete surface with a bottom cap and 10 feet of screen and 0.58 feet of riser. The top of the well was an expandable locking cap, and the surface was finished with a flush-mount cover and bolted lid. The well was checked on 24 August 2006; depth to water was 5.7 feet bgs with no free product.

4.2 DISPOSAL OF INVESTIGATION DERIVED WASTE

All IDW was properly disposed in accordance with state and federal regulations. The soil IDW was stored in two, plastic-lined, roll-off containers. The containers were covered with tarps, and each container was properly labeled. A sample was taken from both containers and composited. The sample (designated as 61 TCLP) was shipped to the analytical laboratory for analyses to determine whether it was hazardous or not. It was determined the soil in each container was not hazardous; therefore, the containers were manifested by Public Works Business Center personnel, transported to Superior Landfill in Savannah, Georgia, and disposed. Copies of the waste manifests and waste characterization Form 1s are provided in Appendix B.

4.3 SAMPLING EFFORTS

As stated previously, the bottom of the excavation and the excavation sidewalls were sampled. The samples were field screened using a photoionization detector. The results of the field screening are presented in Table 4-1.

Sample	Depth (ft-bgs)	Location	Field Screening Result Total VOCs (ppm)
61-01	8.3	Pit bottom	40
*61-02	8.3	Pit bottom	40
61-03	7.8	East sidewall	95
61-04	7.8	North sidewall	385
61-05	7.8	West sidewall	5
61-06	7.8	South sidewall	5

Table 4-1	Field	Screening	Results
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*Sample 61-02 was a duplicate sample of sample 61-01.

bgs = below ground surface ft = feet ppm = parts per million VOC = volatile organic com As stated previously, the bottom of the excavation and the excavation sidewalls were sampled, and the samples were shipped to Empirical Laboratory in Nashville, Tennessee for analysis. These samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertbutyl ether (MTBE), polynuclear aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH) diesel range organics, and TPH gasoline range organics.

4.4 RESULTS OF CONFIRMATORY SAMPLING

4.4.1 Data Validation

DataChek, LLC validated the analytical results in accordance with the approved work plan. The following discussion summarizes the findings of their validation report.

The sample data were validated following the logic identified in *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA, October 1999) for all areas. For those analytical methods not addressed by the Contract Laboratory Program (CLP) guidelines, the validation was based on the method requirements and technical judgment, following the logic of the CLP validation guidelines.

This data validation report reflects the data validation findings for samples associated with UST 61. The validated data set consisted of 6 soil samples and was validated at Level III. Overall the data was of good quality, and all measurements required to satisfy the project quality control objectives (precision, accuracy, representativeness, comparability, and completeness) were met. Each of these measures and specific data qualifications are discussed below.

Precision: Precision is a measure of the agreement between duplicate sample measurements of the same quantity and is reflected in the relative percent difference (RPD) between spikes and the RPD for the field duplicate analysis. Precision for UST 61 was measured at 89.1 percent. The low precision is associated with the large inherent variability in the results obtained from analyzing duplicate soil samples.

Accuracy: Accuracy is measured by the results from the recovery of known amounts of compounds or elements from laboratory control samples (LCS), matrix spikes (MS), and surrogate recoveries. The overall measure of accuracy for UST 61 was calculated by comparing the number of spike recoveries that

exceeded the laboratory limits by the total number of LCS, MS and surrogate spikes. For all analyte groups, accuracy was measured at 100.0 percent.

Representativeness: The measures of representativeness – sample handling, analytical blank analysis, field blanks – were met for all sites. Some blank contamination was noted and the appropriate compounds were qualified as "U." Designated analytical protocols were followed. Holding times were met for all analyses. Overall, no major problems were identified resulting from analytical failure.

Comparability: All data were analyzed using appropriate approved methods of analysis. All data results were reported correctly and in standard units

Completeness: Completeness is the amount of valid data compared to the planned amount and is expressed as a percent of the usable data points divided by the total number of analytes for each parameter analyzed. Out of a total of 138 data points, no data points were rejected, resulting in a completeness of 100 percent.

Several sample results for the organic compounds were assigned "J" qualifiers by the laboratory, which is standard practice for these methods, because they were quantitated between the method detection limit and the reporting limit. Due to the uncertainty associated with this region of quantification, the validation reviewer retained the "J" qualifiers assigned by the laboratory to indicate an estimated quantity.

The data validation qualifiers (Table 4-2) applied by the reviewer were recorded in a column adjacent and to the right of the laboratory results, as shown on the validated laboratory Form 1s in Appendix C.

Qualifier	Definition
В	Indicates that the analyte is found in the associated method blank as well as the sample at above the QC level.
U	The analyte was analyzed for, but was not detected above the reported sample quantification limit or the reported analyte value was not detected above 5x or 10x the level reported in laboratory or field blanks.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

Table 4-2 Data Qualifier Definitions

QC = quality control

A data validation reason code was also added to each of the reviewer's qualifiers to provide the user with a means to identify which results were qualified and the reason for the qualifiers. A reason code of "6A" is assigned "due to the method or preparation blank," and a reason code of "17" is assigned "due to field duplicate relative percent difference criteria being exceeded."

4.4.2 Validated Analytical Results

The results of the BTEX/MTBE, PAH, and TPH analyses are presented in Tables 4-3, 4-4, and 4-5, respectively.

Analyte	61-01	61-02	61-03	61-04	61-05	61-06	GUST Estimated Laboratory Detection Limits ¹	GA STL ²
Benzene	62J	240U	290U	270U	0.91J	6.2U	5	8
Toluene	230U	240U	290U	70U	5.3U	6.2U	5	6,000
Ethylbenzene	920J	220J	260J	340	5.3U	6.2U	5	10,000
Xylenes (total)	3,300J	730J	260J	1,500	5.3U	6.2U	5	700,000
MTBE	230U	240U	290U	270U	5.3U	6.2U	NL	NL

Table 4-3 Analytical Results for BTEX and MTBE Analyses, UST 61

*Sample 61-02 was a duplicate sample of sample 61-01

¹Estimated laboratory detection limits are from Table 2, "Laboratory Estimated Quantitation Limits for Soil and Groundwater Samples" of GUST-9 (GDNR, November 2001)

²Soil threshold levels from Table A, Column 2 (Average or Higher Groundwater Pollution Susceptibility Area) of Rules of Georgia Department of Natural Resources Environmental Protection Division, Chapter 391-3-15—Underground Storage Tank Management, Section 391-3-15.09, "Release Response and Corrective Action for UST Systems Containing Petroleum, Amended." (GA DNR, October 2001)

Units are micrograms per kilogram ($\mu g/kg$).

BTEX = benzene, toluene, ethylbenzene, and xylenesMTBE = methyl teDNR = Department of Natural ResourcesNL = not listedGA = GeorgiaSTL = soil threshoGUST = Georgia Underground Storage TankU = not detected at

J = estimated due to quality control criteria

MTBE = methyl tertbutyl ether NL = not listed STL = soil threshold levels U = not detected at reporting limit shown

Benzene was the only analyte detected at a concentration above the Georgia soil threshold level. Benzene was estimated in the primary sample from the excavation bottom (Sample 61-01) with an estimated concentration of $62 \mu g/kg$, but benzene was not detected in the duplicate sample from the same location. The remaining analytes are below the Georgia soil threshold levels. The samples from the excavation sidewalls show all the analytes are at concentrations below the Georgia soil threshold levels.

Analyte	61-01	61-02	61-03	61-04	61-05	61-06	GUST Estimated Laboratory Detection Limits ¹	GA STL ²
Acenaphthene	55U	55U	56U	53U	52U	63U	660	NA
Acenaphthylene	55U	55U	56U	53U	52U	63U	660	NA
Anthracene	55U	55U	56U	53U	52U	63U	660	NA
Benxo(a)anthracene	55U	55U	56U	53U	52U	63U	660	NA
Benzo(b)flouranthene	55U	55U	56U	53U	52U	63U	660	NA
Benzo(k)flouranthene	55U	55U	56U	53U	52U	63U	660	NA
Benzo(g,h,i)perylene	55U	55U	56U	53U	52U	63U	660	NA
Benzo(a)pyrene	55U	55U	56U	53U	52U	63U	660	NA
Chrysene	55U	55U	56U	53U	52U	63U	660	NA
Dibenz(a,h)anthracene	55UJ	55UJ	56UJ	53UJ	52UJ	63UJ	660	NA
Fluoranthene	55U	55U	56U	53U	52U	63U	660	NA
Fluorene	55U	55U	56U	53U	52U	63U	660	NA
Indeno(1,2,3-cd)pyrene	55U	55U	56U	53U	52U	63U	660	NA
Naphthalene	260J	520J	1,200	280	52U	63U	660	NA
Phenanthrene	310J	540J	2,600	310	52U	63U	660	NA
Pyrene	55U	120	710	82	52U	63U	660	NA

Table 4-4 Analytical Results for PAH Analyses, UST 61

*Sample 61-02 was a duplicate sample of sample 61-01

¹Estimated laboratory detection limits are from Table 2, "Laboratory Estimated Quantitation Limits for Soil and Groundwater Samples" of GUST-9 (GA DNR, November 2001)

²Soil threshold levels from Table A, Column 2 (Average or Higher Groundwater Pollution Susceptibility Area) of Rules of Georgia Department of Natural Resources Environmental Protection Division, Chapter 391-3-15—Underground Storage Tank Management, Section 391-3-15.09, "Release Response and Corrective Action for UST Systems Containing Petroleum, Amended." (GA DNR, October 2001)

Units are micrograms per kilogram (µg/kg).

DNR = Department of Natural Resources

GA = Georgia

GUST = Georgia Underground Storage Tank

NA = Not applicable. The health-based threshold level exceeds the expected soil concentration under free product conditions. J = estimated due to quality control criteria

PAH = polynuclear aromatic hydrocarbon

STL = soil threshold level

U = not detected at reporting limit shown

As Table 4-4 shows, naphthalene, phenanthrene, and pyrene in Sample 61-03 (east sidewall) had

concentrations that exceeded the estimated laboratory detection limits as shown in Underground Storage

Tank (UST) Closure Guidance Document, Petroleum Releases (GDNR, November 2001), hereinafter

referred to as GUST-9. The remaining analytes in Sample 61-03, along with the remaining samples were

all either not detected or had concentrations less than the GUST-9 estimated laboratory detection limits.

Analyte	61-01	61-02	61-03	61-04	61-05	61-06	GUST Estimated Laboratory Detection Limits ¹	GA STL ²
TPH-DRO	800	1,100	3,500	2,300	8.0	4.9U	10	NRC
TPH-GRO	43J	13J	31	25	5.7	8.0J	10	NRC
Total TPH	843	1,113	3,531	2,325	13.7	12.9UJ	10	NRC

Table 4-5 Analytical Results for TPH Analyses, UST 61

*Sample 61-02 was a duplicate sample of sample 61-01

¹Estimated laboratory detection limits are from Table 2, "Laboratory Estimated Quantitation Limits for Soil and Groundwater Samples" of GUST-9 (GA DNR, November 2001)

²Soil threshold levels from Table A, Column 2 (Average or Higher Groundwater Pollution Susceptibility Area) of Rules of Georgia Department of Natural Resources Environmental Protection Division, Chapter 391-3-15—Underground Storage Tank Management, Section 391-3-15.09, "Release Response and Corrective Action for UST Systems Containing Petroleum, amended." (GA DNR, October 2001)

Units are milligrams per kilogram (mg/kg).

DRO = diesel range organics GA = Georgia GRO = gasoline range organic GUST = Georgia underground storage tank

J = estimated due to quality control criteria

NRC = no regulatory criteria STL = soil threshold level TPH = total petroleum hydrocarbon U = not detected at reporting limit shown

As Table 4-5 shows, all samples reported concentrations of TPH above the GUST-9 estimated laboratory detection limits.

5. CONCLUSIONS

The potential free-product layer surrounding well 22-07 has been removed; however, soil samples collected after the removal effort was complete reported concentrations of contaminants in the soil exceeding acceptable levels. Specifically,

- Benzene was estimated in the primary sample from the excavation bottom (Sample 61-01) with an estimated concentration of 62 µg/kg, which exceeded the Georgia soil threshold level, but benzene was not detected in the duplicate sample from the same location;
- Sample 61-03 (east sidewall) reported concentrations of naphthalene, phenanthrene, and pyrene that exceeded the GUST-9 estimated laboratory detection limits; and
- all of the samples reported concentrations of TPH above the GUST-9 estimated laboratory detection limits.

As required in the approved work plan, STEP will collect one groundwater sample from each of the three wells at UST 61 on a semiannual basis for a period of one year (two sampling events). Within six months

of completion of the IRAs at UST 61, STEP will develop the newly installed monitoring well (Well 22-07R) and begin semiannual monitoring of the groundwater at UST 61. Groundwater samples will be collected from the newly installed well (22-07R) and from the two other groundwater monitoring wells (22-08 and 22-09) at the site. These groundwater samples will be analyzed for BTEX. The second sampling event will be conducted approximately six months after the first sampling event is completed. Upon completion of the semiannual monitoring, STEP will prepare an annual progress report.

6. **REFERENCES**

EPA (U.S. Environmental Protection Agency), October 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.

GDNR (Georgia Department of Natural Resources, Environmental Protection Division), November 2001. Underground Storage Tank (UST) Closure Guidance Document, Petroleum Releases.

GDNR, October 2001. "Release Response and Corrective Action for UST Systems Containing Petroleum. Amended." *Rules of the Georgia Department of Natural Resources* 391-3-15.09.

SAIC (Science Applications International Corporation), March 1997. *Corrective Action Plan-Part A for Tank #61*.

SAIC, July 1998. Corrective Action Plan-Part A Addendum for Tank #61.

SAIC, May 2001. First Annual Monitoring Only Report for UST 61.

STEP (Solutions To Environmental Problems, Inc.), July 2006. *Final Work Plan for Interim Removal Activities at Underground Storage Tank 61 Facility ID #9-089104 Building 1161 Fort Stewart, Georgia.*

USACE (U.S. Army Corps of Engineers) Savannah District, January 2006. Scope of Work, Interim Removal Activities at Underground Storage Tank 61, Facility ID #9-089104, Building 1161 and Underground Storage Tank 82, Facility ID #9-089029, Building 1281, and SWMU 39, Underground Storage Tanks 59 & 60 at Fort Stewart Georgia.

APPENDIX A

Photographs



Cutting concrete for removal



Excavating soil (note sand bag debris)



Side wall (with debris)



ORC® applied to walls and bottom of excavation



Rebar doweled into concrete



Reinforcement steel



Pouring concrete



Placing and finishing concrete



Completed well



Curbing and concrete finished, site restored

APPENDIX B

Waste Characterization and Waste Manifests



CLIENT: STEP, Inc. DATE RECEIVED: 07/26/06

DATE REPORTED: 08/04/06

MPIRICAL LABORAT	ORIES SAMPLE	NUMBER			0607216-08
LIENT SAMPLE DESC	RIPTION/SAMP	LING DATE			61 TCLP
					7/25/06 12:00:00 PI
	REGULATORY	REPORTING	USEPA		
ANALYTES	LIMITS	LIMITS	METHOD	UNITS	CONC
Arsenic-TCLP	5.0	0.030	1311/6010B	mg/L	<0.030
Barium-TCLP	100	0.050	1311/6010B	mg/L	0.223
Cadmium-TCLP	1.0	0.010	1311/6010B	mg/L	< 0.010
Chromium-TCLP	5.0	0.020	1311/6010B	mg/L	<0.020
Lead-TCLP	5.0	0.020	1311/6010B	mg/L	<0.020
Mercury-TCLP	0.20	0.00080	7470A	mg/L	<0.00080
Selenium-TCLP	1.0	0.030	1311/6010B	mg/L	<0.030
Silver-TCLP	5.0	0.010	1311/6010B	mg/L	<0.010
Initial pH - TCLP	NA	NA	1311	Units	7.0
Final pH - TCLP	NA	NA	1311	Units	4.9
Cyanide	250	0.13	9012A	mg/kg (as Rec'd)	<0.13
Ignitability	<140	NA	1010	°F	>158
pH-Laboratory (1)	<2/>12.5	NA	9045B	Units	6.7@ 18°C
Reactive Sulfide	500	19	Chap.7.3.4.2	mg/kg (as Rec'd)	<19

See attached page for definitions of terms and qualifiers.

EMPIRICAL LABORATORIES

D. Rick Davis

Vice President

Empired Energy and a Suite 550 Nashville, TN 37228 Tel (615) 345-1115 Fax (615) 845(19)

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tlantic N	ON-HAZARDOUS WAS			<u> </u>
aste services INERATOR				
Generator Name: Alaptic Weste	< Primps			
Billing Address: 195 B Pice M	· · · · ·	US EPA ID#:		
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	<u>Techran Dr</u>	H. Jugo		· · · · · · · · · · · · · · · · · · ·
County of Origin: Last DET4(A		Phone:		
Description of Waste	Total Quantity	Profile Number	Unit of Measure	Container Type
Containinated Soil		KCE845281	20	POL
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Special Handling Instructions	<u>l</u>			17 Maria
Special Handling Instructions				nterana Antonio y Antoneo
I hereby certify that the above described m applicable state law, have been fully and a for transportation according to applicable r	naterials are non-hazardous accurately described, classif regulations.	wastes as defined by	40 CFR Part 261 or	any
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	behran bri		tewart, (97
County of Origin: Liberty		Phone:	7	
0	<u> </u>	-	ан жи л Ф _{антин}	
Description of Waste	Total Quantity	Profile Number	Unit of Measure	Container Type
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I hereby certify that the above described ma applicable state law, have been fully and act for transportation according to applicable reg <u>RAMPA</u> <u>Rowell</u> Jonn <u>Gehérator Authorized Agent Name</u> Transporter Name: <u>Margan</u> <u>Address:</u> <u>Tames F. Eduards</u> Name of Authorized Agent <u>SPOSAL FACILITY</u> Site Name: <u>Margan</u>	Iterials are non-hazardous curately described, classif gulations. JASTERSTWICES ENERGOUNTY GA 31322 GA 31322 MARGUL	wastes as defined by ied and packaged and Signature DOT#: Truck Number: Signature	40 CFR Part 261 or are in proper condi Contractor 101	any tion Date Shipped
I hereby certify that the above described ma applicable state law, have been fully and act for transportation according to applicable reg <u>RANDY</u> <u>Rowell</u> <u>Jonn</u> Generator Authorized Agent Name Transporter Name: <u>Jone</u> <u>Address:</u> <u>James F. Edwards</u> Name of Authorized Agent SPOSAL FACILITY Site Name: <u>Jone</u>	Iterials are non-hazardous curately described, classif gulations. JASTERSTWICES ENERGOUNTY GA 31322 GA 31322 MARGUL	wastes as defined by ied and packaged and Signature DOT#: Truck Number: Signature	40 CFR Part 261 or are in proper condi Contractor 101	any tion Date Shipped
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FORM 1 VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

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Lab Name: EMPIRICAL	LABS Contract:	STEP	61 TCLP
Lab Code: ELABN	Case No.: NA	SAS No.: NA SDG No	.: STE.V07216
Matrix: (soil/water)	WATER	Lab Sample ID:	0607216-08
Sample wt/vol:	5.000 (g/mL) ML	Lab File ID:	0721608T
Level: (low/med)	LOW	Date Sampled:	07/25/06 12:00
% Moisture: not dec.		Date Analyzed:	07/28/06 13:46
GC Column: DB-VRX	ID: 0.25 (mm)	Dilution Facto	pr: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot V	'olume:(uL)
	CON	ICENTRATION UNITS: (ug	/L or ug/Kg) MG/L

CAS NO.	COMPOUND	EQL	TCLP Regulatory Limit	CONC	Q
108-90-7Ch 67-66-3Ch 106-46-71, 107-06-21,	Butanone arbon tetrachloride alorobenzene 4-Dichlorobenzene 2-Dichloroethane 1-Dichloroethene etrachloroethene	0.01 0.1 0.01 0.01 0.01 0.01 0.01 0.01	0 200 0 0.50 0 100 0 6.0 0 7.5 0 0.50 0 0.70 0 0.70	<0.010 <0.010 <0.010 <0.010 <0.010 <0.010	ם ם ם ם ם ם ם ם ם ם ם ם ם ם ם ם ם ם ם
75-01-4Vi	.nyl chloride	0.02		<0.020	-



FORM 1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA	A SHEET
Lab Name: EMPIRICAL LABS Contract: STEP	61 TCLP
Lab Code: ELABN Case No.; NA SAS No.	.: NA SDG No.: STE.B07216
Matrix: (soil/water) TCLP	Lab Sample ID: 0607216-08
Sample wt/vol: 100.0 (g/mL) ML	Lab File ID: 0721608
% Moisture: decanted: (Y/N)	Date Sampled: 07/25/06 12:00
Extraction: (SepF/Cont/Sonc/Soxh) SEPF	Date Extracted:07/31/06
Concentrated Extract Volume: 1000.0(uL)	Date Analyzed: 08/03/06 00:25
Injection Volume: 0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: NA	

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

CAS NO.	COMPOUND	EQL	TCLP Regulatory Limit	CONC	Q
118-74-1H 87-68-3H 67-72-1H 106-44-5H 95-48-72 98-95-3N 87-86-5P 110-86-1P 95-95-42	-Methylphenol -Methylphenol itrobenzene entachlorophenol		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	<0.050 <0.050 <0.050 <0.050 <0.050 <0.20 <0.20 <0.20 <0.050	บ บ บ บ บ บ บ บ บ



FORM 1 PESTA ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

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Lab Name: EMPIRICAL	LABS C	ontract:	STEP			61 TCLP	
				: NA	SDG NO	.: STE.P0721	1 6
Matrix: (soil/water)	TCLP			Lab S	Sample ID:	0607216-08	
Sample wt/vol:	100.0 (g,	/mL) ML		Lab 1	File ID:	015F1501	
% Moisture:	decanted	: (Y/N)		Date	Sampled:	07/25/06 12	:00
Extraction: (SepF/C	Cont/Sonc/S	Soxh) SEI	PF	Date	Extracted	:07/31/06	
Concentrated Extract	: Volume:	10.0(n	nL)	Date	Analyzed:	08/02/06 17	:02
Injection Volume:	2.0(uL)			Dilut	tion Facto	r: 1.0	
GPC Cleanup: (Y/N)	N	pH: NA	2	Sulfu	Cleanup:	(Y/N) N	
		CON	ICENTRATI	ION UI	NITS: (ug,	/L or ug/Kg)	MG/L

CAS NO.	COMPOUND	EQI	L	TCLP Regulatory Limit	CONC	Q
12789-03-6Cl 72-20-8El 58-89-9Gi 76-44-8He 1024-57-3He 72-43-5Me 8001-35-2Te	ndrin amma-BHC eptachlor eptachlor Epoxide ethoxychlor)010)010)010)010	0.020 0.40 0.0080 0.0080 10	<0.00050 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.010	บ บ บ บ บ



FORM 1 HERB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

HERB C	REANICS ANALISIS DATA SHI	281.	
Lab Name: EMPIRICAL	LABS Contract: STEP		61 TCLP
Lab Code:	Case No.: SAS No.	.: NA SDG No	D.: STE.H07216
Matrix: (soil/water)	TCLP	Lab Sample ID:	0607216-08
Sample wt/vol:	100.0 (g/mL) ML	Lab File ID:	022R0101
% Moisture:	decanted: (Y/N)	Date Sampled:	07/25/06 12:00
Extraction: (SepF/C	ont/Sonc/Soxh) SEPF	Date Extracted	1:07/31/06
Concentrated Extract	Volume: 10.0(mL)	Date Analyzed:	08/03/06 20:28
Injection Volume:	2.0 (uL)	Dilution Facto	er: 1.0
GPC Cleanup: (Y/N)	N pH: NA	Sulfur Cleanup:	(Y/N) N
	CONCENTRAT	TION UNITS: (ug	/L or ug/Kg) MG/L
CAS NO.	COMPOUND	TCL EQL Regula Lim	tory CONC (

94-75-72,4-D 93-72-12,4,5-TP (Silvex)	0.0050 0.00050	 <0.0050 <0.00050	-

APPENDIX C

Confirmatory Sampling, Analytical Form 1s

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		Address Jobio Flovel Culler Ct	e C	Address		Date	Date Shipped 7-	95-52
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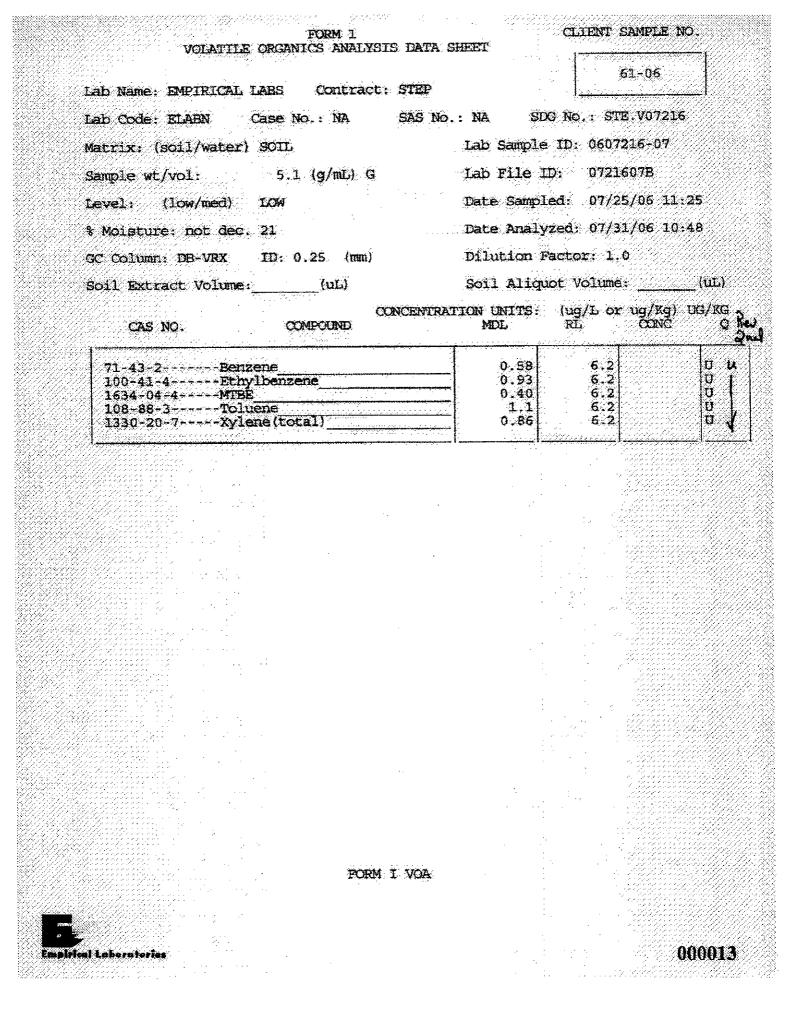
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VOLATILE ORGANICS ANALYSIS DATA	SHEBT		51-01	
Lab Name: EMPIRICAL LABS Contract: STEP		J àna a		1
Lab Code: Elabn Case No.: NA SAS No		DG NO.: ST		
Matriz: (soil/water) SOIL	a dina dia mandri di cara di c Cara di cara di	e ID: 0607	אר אין	
Sample wt/vol: 6.1 (g/mL) G		ID; 0721	ر این از این طور ایر این این این تشدی تکور این این توسط که این می توریک این کمان این این تا توریخ این این این این این این این این این این این این این این این این این	
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Soil Extract Volume: 5000(uL)		uot Volume		2 p. 2 p. 2 p. 2 p. 2 p. 2 p. 1 p. 2 p. 2
CONCERTRA CAS NO. COMPOUND	ATION UNITS: MDL	RL RL	CONC	Rev
71-43-2Benzene 100-41-4Ethylbenzene	22 35	230 230	62 920	3 17
1634-04-4MTBE 168-88-3Toluene 1330-20-7Xylene(total)	15 40 33	230 230 230	239 1-96 3300	U 4 38 4 64 3 17
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Lab Name: EMPIRICAL LABS Contract: STE	P	
Lab Code: ELAEN Case No.: NA SAS	No.: NA SDG No.: STE V07216	
Matrix: (soil/water) SOIL	Lab Sample ID: 0607216-03	
Sample wt/vol: 5.7 (g/mL) G	Lab File ID: 0721603M	
Level: (low/med) MED	Date Sampled: 07/25/06 10:40	
¥ Molsture: not dec. 10	Date Analyzed: 07/31/06 12:40	
GC Column: DB-VRX ID: 0.25 (mm)	Dilution Factor: 1.0	
Soil Extract Volume: 5000(uL)	Soil Aliquot Volume: 100()	
CONCEN	TRATION UNITS: (ug/L or ug/kg) UG	
CAS NO. COMPOUND	MDL RL CONC	
71-43-2Benzene	23 240	
100-41-4Ethylbenzene 1634-04-4MTBE	37 240 220 (16 240 Z4 % J 8	
108-98-3Toluene 1330-20-7Xylene (total)		
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Lab Name: EMPIRICAL LABS	•		· .	l	-03
Lab Code: ELABN Case N	o.: NA	SAS NO.			
Matrix: (soil/water) SOIL			Lab Sample		a a a da da da a a a a a a da a da a d
Sample wt/vol: 5.1	(g/mL) G		Lab File I		م المركز المركز المحموظة المركز ا المركز المركز المركز المحموظة المركز المر
Level: (low/med) MED		·	Date Sampl	andar an	a an
* Moisture: not dec. 15	21 - 12 - 12 -		Date Analy		06 13:17
GC Column: DB-VRX ID: 0			Dilution R	n an	***
Soil Extract Volume: 50		-	. –		100 (UL) 19/Kg) UG/KG
CAS NO. CC	MPCIIND		MDL	RL	CONC Q
71-43-2Benzene			27	290	U 260 J J
100-41-4Ethylbenze 1634-04-4MTBE 198-88-3Toluene			43 18 50	290 290 290	286 G J U L U L
1330-20-7Xylene(Tot	.al)	,	40	290	260 J
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n felder som en		61-04
Lab Name: EMPIRICAL LABS Contract: STEP		
	No.: NA SDG No.: S Lab Sample ID: 060	a south a start
Matrix: (soil/water) SOIL	Lab Sample ID: 030	
Sample wt/vol: 4.9 (g/mL) G Level: (low/med) MED	Date Sampled: 07/	و شور تحمد المراجع المراجع المواجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع الم والمراجع المراجع
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GC Column: DB-VRX ID: 0.25 (mm)	Dilution Factor: 1	و این همه همه او این این هر او این این این این این این موجود این این این مخط این این هموشمه این همه سر همه این این این می می این هم این این ا
Soil Extract Volume: 5000(uL)	Soil Aliquot Volum	ی که محد مدامه مدینه مواهد مواهد مواهد به این مواد می مدینه از معاد محمد این مواد مواهد. موانع محمومه مواده موادم مواد مواد مواد مواد مواد مواد موا
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71-43-2Benzene 100-41-4Ethylbenzene 1634-04-4MTBE 108-88-3Toluene 1330-20-7Xylene(total)	26 270 41 270 18 270 47 270 47 270 38 270	340 U U
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VOLATILE ORGANICS ANALYSIS E	स्वयन्त्रकृतः कार्यसम्पतिम्।	61-	05
Lab Name: EMPIRICAL LABS Contract: SI		1	<u> </u>
Lab Code: ELABN Case No.: NA SP		3 no.: STE.V	م می از این می می می از این می می می می می می این این می این این می می می این این می می می این این می می می ای این می
Matrix: (soil/water) SOIL	and a second	ID: 0607216	a a construir de la construir d La construir de la construir de
Sample wt/vol: 5.2 (g/mL) G	lab File I	موجوعها والمعالم والمعالي والمعالي والمرجو	يتركبه ومرجعه معتوجية بالمعاصر فتركم المعايمة الأسام الماسية
Level: (low/med) LOW		ed: 07/25/0	ا این این محمد محمد این این می این می این می این می این می این می این این می این این می این این می این می این این می این محمد این این این این این می این می این می این می این این می این می این می این می این می این می این م
& Moisture: not dec. 9	Date Analy		6 11:25
GC Column: DB-VRX ID: 0.25 (mm)	Dilution F		Lawren
Soil Extract Volume:(uL)	· · · · · · · · · · · · · · · · · · ·	ot Volume:	العليه المراحلي العلي المراحل المراجلة المحالية المواجع المراجلة المحالة المحالة المحالة المحالة المحالة المحا المراجع الحصي المحالي المحالي المراجل المراجل المحالية المحالة المحالة المحالية المحالية المحالية المحالة المحا
CONC. CAS NO. COMPOUND	ENTRATION UNITS: MDL	RL (XONC Q
71-43-2Benzene	0.50	5.3 5.3	0.91 J J U U
100-41-4Bthylbenzene 1634-04-4MTBE	0.79 0.34 0.91	5.3	Ŭ Į
108-88-3Toluene 1330-20-7Xylene(total)	0.74	5.3	ō 🗸
		<u></u>	
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FORM 1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

61-01

000083

Lab Name: EMPIRICAL LABS Contract: STEP Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: STE . 807216 Matrix: (soil/water) SOIL Sample wt/vol: 15.5 (g/mL) G % Moisture: 12 decanted: (Y/N) N Extraction: (SepF/Cont/Sonc/Soxh) SOXH Concentrated Extract Volume: 500.0(uL) 0.5 (uL) Injection Volume: GPC Cleanup: (Y/N) N pH: NA

Lab Sample ID: 0607216-02 Lab File ID: 0721602 Date Sampled: 07/25/06 10:40 Date Extracted:07/27/06 Date Analyzed: 08/03/06 04:43 Dilution Factor: 1.0

CAS NO. COMPOUND	M	DL (2004) Alexandria	а. О	SNC Q
3-32-9Acenaphthene		22	55	U U
08-96-8Acenaphthylene		22	55	U
20-12-7Anthracene		22	55	U
6-55-3Benzo(a) anthracene	2	22	55	/////// / 0///
205-99-2Benzo (b) fluoranthe		22	55	U I
07-08-9Benzo(k) fluoranthe		22	55 1////	////// ///////////////////////////////
91-24-2Benzo (g,h,i) peryle		22	55 ////	///////// U P/
50-32-8Benzo (a) pyrene		22	55	
18-01-9Chrysene		22	56	U 🕐
53-70-3Dibenz (a, h) anthrac	bene	22	55	UY K
206-44-0Fluoranthene		22	55	U ¥
6-73-7Fluorene		22	55	U. I
93-39-5Indeno (1.2.3-cd) py	/rene	22	55	/////// D ///
1-20-3Naphthalene	• • • • • • • • • • • • • • • • • • •	22	55	260 5
5-01-8Phenanthrene		22	55	310
129-00-0Pyrene		22	55	U U

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FORM 1. SEMIVOLATILE ORGANICS ANALYSIS DATZ	I SHEET	CLIENT SAMPLI	2 NO.
eb Name: EMPIRICAL LABS Contract: STEP		61+02	
ab Code: ELAEN Case No.: NA SAS No.	; NA SDA	INO.: STE.B07	216
Matrix: (soil/water) SOIL	Lab Sample	ID: 0607216-0	3
Sample wt/vol: 15.3 (g/mL) G	Lab File II): 0721603	
% Moisture: 10 decanted: (Y/N) N	Date Sample	sd: 07/25/06	10:40
Extraction: (SepF/Cont/Sonc/Soxh) SOXH	Date Extra	ted:07/27/06	
Concentrated Extract Volume: 500.0(uL)	Date Analy:	zed: 08/03/06	05:18
Injection Volume: 0.5(uL)	Dilution F	actor: 1.0	
GPC Cleanup: (Y/N) N pH: NA	· · · · · · · · · · · · · · · · · · ·		
Concentra Cas No. Compound	TION UNITS: MDL	(ug/L or ug/K RL COM	'ୟ) UG/KG IC ପୁର୍ନ ସୁନ
83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene	22 22 22 22 22 22 22 22	55 55 55 55 55 55	שט שטש שטש שטש שטש
207-08-9Benzo (k) fluoranthene 191-24-2Benzo (g, h, i) perylene 50-32-8Benzo (a) pyrene 218-01-9Chrysene	22 22 22 22 22	55 55 55 55	

218-01-9-----Chrysene 53-70-3-----Dibenz(a,h)anthracene 5555555555 UY 🞜 3 205-44-0-----Fluoranthene 86-73-7-----Fluorene 193-39-5-----Indeno (1, 2, 3-cd) pyrene 91-20-3----Naphthalene 85-01-8-----Phenanthrene ų U Ū Ļ U s T 55 520 17 540 Ø 120 55 129-00-0----Pyrene

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FORM 1 SEMIVOLATILE ORGANICS ANALYSIS DAT	A SHEET		ildi sa	MPLE NO.	
ib Name: EMPIRICAL LABS Contract: STEP			61	-03	
ib Code: Elabn Case No.: NA SAS No	.: NA	SIDG NO	.: STE.	B07216	
atrix: (soil/water) SOIL	Lab Samp	le ID:	060721	6-04	
ample wt/vol: 15.7 (g/mL) G	Lab File	ID:	072160)4	
Moisture: 15 decanted: (Y/N) N	Date Sam	pled:	07/25/	06 10:55	
traction: (SepF/Cont/Sonc/Soxh) SOXH	Date Ext	racted	:07/27/	/06	
pncentrated Extract Volume: 500.0(uL)	Date Ana	lyzed:	08/03/	/06 05:52	(////////////////////////////////////
njection Volume: 0.5(uL)	Dilution	Facto	r: 1.0		
PC Cleanum: (Y/N) N DH: NA	TTYNT TRTT				1/1/12 -
PC Cleanum: (Y/N) N DH: NA	VTION UNITS	i: (uc Ri	/L or 1	uq/Kg) UC CONC	9/KG R. 0 R. 2 1
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene	22		56	යු/Kg) UC CONC 680	<u> </u>
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene	22		56 56		יא ^{ין} ע ג
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 129-12-7Anthracene	22 22 22 22		56 56 56		U 4
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene	22 22 22 22 22		56 56		
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Acenaphthylene 120-12-7Benzo (a) anthracene 56-55-3Benzo (b) fluoranthene	22 22 22 22 22 22 22 22 22 22		56 56 56 56 56		U U U U U U U U
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (k) fluoranthene	22 22 22 22 22 22 22 22 22 22 22 22 22		56 56 56 56 56 56 56 56		
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (k) fluoranthene 191-24-2Benzo (g, h, i) perylene 50-32-8Benzo (a) pyrene	22 22 22 22 22 22 22 22 22 22 22 22 22		56 56 56 56 56 56 56 56 56		
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Acenaphthylene 120-12-7Acenaphthylene 205-99-2Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (b) fluoranthene 191-24-2Benzo (c) fluoranthene 191-24-2Benzo (c) pyrene 218-01-9Chrysene			56 56 56 56 56 56 56 56 56 56 56 56 56 5		
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (b) fluoranthene 191-24-2Benzo (g, h, i) perylene 50-32-8Benzo (a) pyrene 218-01-9Chrysene 53-70-3Dibenz (a, h) anthracene	22 22 22 22 22 22 22 22 22 22 22 22 22		56666666556 56666665555555555555555555		
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (b) fluoranthene 191-24-2Benzo (g, h, i) perylene 50-32-8Benzo (a) pyrene 218-01-9Chrysene 53-70-3Dibenz (a, h) anthracene 206-44-0Fluoranthene	22 22 22 22 22 22 22 22 22 22 22 22 22		555566655555555555555555555555555555555		
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (b) fluoranthene 191-24-2Benzo (c, h, i) perylene 50-32-8Benzo (a) pyrene 218-01-9Chrysene 53-70-3Dibenz (a, h) anthracene 206-44-9Fluoranthene 86-73-7Fluorene			555555555555555555555555555555555555555		
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (c) fluoranthene 191-24-2Benzo (c) fluoranthene 191-24-2Benzo (c) pyrene 218-01-9Chrysene 53-70-3Dibenz (c, h) anthracene 206-44-0Fluoranthene 86-73-7Fluorene 193-39-5Indeno (1, 2, 3-cd) pyrene			555555555555555555555555555555555555555	680	
PC Cleanup: (Y/N) N pH: NA CAS NO. COMPOUND 83-32-9Acenaphthene COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Acenaphthylene 120-12-7Acenaphthylene 120-12-7Acenaphthylene 205-99-2Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (b) fluoranthene 207-08-9Benzo (c) fluoranthene 207-08-9Benzo (c) fluoranthene 191-24-2Benzo (c) fluoranthene 203-32-8Benzo (c) pyrene 50-32-8Benzo (c) pyrene 218-01-9Chrysene 53+70-3Dibenz (c, h) anthracene 206-44-0Fluoranthene 206-44-0Fluoranthene 206-3-7			555555555555555555555555555555555555555	680 1200	
PC Cleanup: (Y/N) N pH: NA CONCENTRA CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (c) fluoranthene 191-24-2Benzo (c) fluoranthene 191-24-2Benzo (c) pyrene 218-01-9Chrysene 53-70-3Dibenz (c, h) anthracene 206-44-0Fluoranthene 86-73-7Fluorene 193-39-5Indeno (1, 2, 3-cd) pyrene			555555555555555555555555555555555555555	680	

3-32-9Acenaphthene	22	56	680	
08-96-8Acenaphthylene	22	56		U IA
20-12-7Anchracene	22	56	an a	U
6-55-3Benzo (a) anthracene	22	56		U
05-99-2Benzo (b) fluoranthene	22	56	المرجع هم الراكب بيد الاحتراب من المرجع المرجع موجع المرجع ال	U
07-08-9Benzo (k) fluoranthene	22	56	م الموالي المراجع المر والمحالي المراجع المراجع والمحالي المراجع	U
91-24-2Benzo(g,h,i)perylene	22	56		U
0-32-8Benzo (a) pyrene	22	56		U
18-01-9Chrysene	22	55		Contact
3-70-3Dibenz (a.h) anthracene	22	56		TTY 43
06-44-0Fluoranthene	22	56	a d'ala d'o d'o d'o d'o d'o d'a d' de la compositione	U V
6-73-7Fluorene	22	56		U C
93-39-5Indeno (1, 2, 3-cd) pyrene	-22	56	la sa da da sa da di sa sa sa sa sa da sa da da da na sa	U 🔸
1-20-3Naphthalene	22	56	1200	
5-01-8Phenanthrene	22	56	2600	1992A
29-00-0Pyrene	22	56	710	11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1

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FORM 1 SHMIVOLATILE ORGANICS ANALYSIS DATA	CLIENT SAMPLE NO. SHEET
Lab Name: EMPIRICAL LABS Contract: STEP	61-04
Lab Code: ELABN Case No.: NA SAS No.	: NA SDG No.: STE.B07216
Matrix: (soil/water) SOIL	Lab Sample ID: 0607216-05
Sample wt/vol: 15.3 (g/mL) G	Lab File ID: 0721605
¥ Moisture: 7 decanted: (Y/N) N	Date Sampled: 07/25/06 11:05
Extraction: (SepF/Cont/Sonc/Soxh) SOXH	Date Extracted:07/27/05
Concentrated Extract Volume: 500.0 (uL)	Date Analyzed: 08/03/06 06:27
Injection Volume: 0.5(uL)	Dilution Factor: 1.0
GPC Cleamup: (Y/N) N pH: NA	

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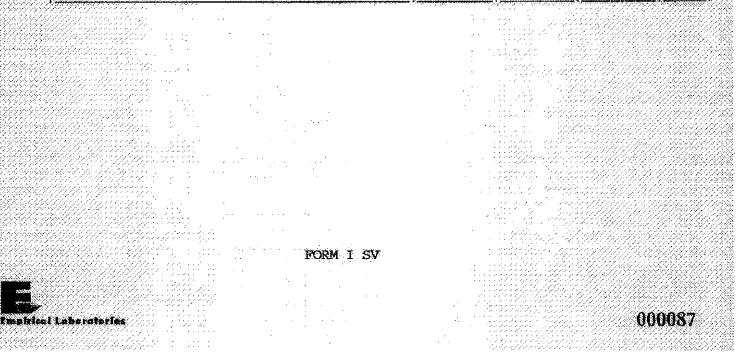
Empirical Laboratories

FORM 1 SEMIVOLATILE ORGANICS ANALYSIS DAT	A SHEET	CLIENT SAM	PLE NO.
5 Name: EMPIRICAL LABS Contract: STEP		61-	04
d Code: ELAEN Case No.: NA SAS N).: NA SDG	No.: STE.B	07216
trix: (soil/water) SOIL	Lab Sample	ID: 0607216	-05
mple wt/vol: 15.3 (g/mL) G	Lab File IL); 0721605	
Moisture: 7 decanted: (Y/N) N	Date Sample	d: 07/25/0	6 11:05
traction: (SepF/Cont/Sonc/Soxh) SOXH	Date Extrac	ted:07/27/0	15
mcentrated Extract Volume: 500.0 (uL)	Date Analyz	ed: 08/03/0	6 06;27
en e	مرین برای به مریک میرو آخسینی و کارکی از دارو و این از معیور کور میرو	an a	
PC Cleamp: (Y/N) N pH: NA CONCENTR	Dilution Fa	(ug/L or ug	/Kg) UG/KG R
C Cleamup: (Y/N) N pH: NA		(ug/L or ug	y/kg) UG/kG Ru XNC Qqu
C Cleamup: (Y/N) N pH: NA CONCENTR CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene	ATION UNITS: MDL 21 21 21 21	(ug/L or ug RL C 53 53 53	
C Cleamp: (Y/N) N pH: NA CONCENTR CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene	ATION UNITS: MDL 21 21 21 21 21 21 21 21	(ug/L or ug RL 53 53 53 53 53 53	
C Cleamp: (Y/N) N pH: NA CONCENTR CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (k) fluoranthene 191-24-2Benzo (g, h, i) perylene	ATION UNITS: MDL 21 21 21 21 21 21 21 21 21 21 21	(ug/L or ug RL 53 53 53 53 53 53 53 53 53	
C Cleamp: (Y/N) N pH: NA CONCENTR CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (k) fluoranthene 191-24-2Benzo (g, h, i) perylene 50-32-8Benzo (a) pyrene	ATION UNITS: MDL 21 21 21 21 21 21 21 21 21 21 21 21	(ug/L or ug RL 53 53 53 53 53 53 53 53 53 53 53	2000 2000 10 10 10 10 10 10 10 10 10 10 10 10
C Cleamp: (Y/N) N pH: NA CONCENTR CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (k) fluoranthene 191-24-2Benzo (g, h, i) perylene 50-32-8Benzo (a) pyrene 218-01-9Chrysene 53-70-3Dibenz (a, h) anthracene	ATION UNITS: MDL 21 21 21 21 21 21 21 21 21 21 21 21 21	(ug/L or ug RL 53 53 53 53 53 53 53 53 53 53 53 53 53 5	
C Cleamp: (Y/N) N pH: NA CONCENTR CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (c, h) i) perylene 191-24-2Benzo (c, h, i) perylene 50-32-8Benzo (c, h) anthracene 218-01-9Dibenz (c, h) anthracene 206-44-0Fluoranthene	ATION UNITS: MDL 21 21 21 21 21 21 21 21 21 21 21 21 21	(ug/L or ug RL 53 53 53 53 53 53 53 53 53 53 53 53 53 5	
C Cleamp: (Y/N) N pH: NA CONCENTR CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (c) fluoranthene 191-24-2Benzo (c), h, i) perylene 50-32-8Benzo (c), h, i) perylene 51-70-3Benzo (c), h) anthracene 218-01-9Fluoranthene 206-44-0Fluoranthene 86-73-7Fluorene	ATION UNITS: MDL 21 21 21 21 21 21 21 21 21 21 21 21 21	(ug/L or ug RL 53 53 53 53 53 53 53 53 53 53 53 53 53 5	
CAS NO. COMPOUND 83-32-9Acenaphthene 208-96-8Acenaphthylene 208-96-8Acenaphthylene 120-12-7Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (b) fluoranthene 207-08-9Benzo (c) fluoranthene 50-32-8Benzo (c) pyrene 50-32-8Benzo (c) pyrene 53-70-3Fluoranthene 53-70-3Fluoranthene 36-73-7Fluoranthene 96-73-7Fluoranthene 91-20-3Naphthalene	ATION UNITS: MDL 21 21 21 21 21 21 21 21 21 21 21 21 21	(ug/L or ug RL 53 53 53 53 53 53 53 53 53 53 53 53 53 5	
PC Cleanup: (Y/N) N pH: NA CAS NO. COMPOUND 83-32-9Acenaphthene CONCENTR 208-96-8Acenaphthylene 120-12-7Acenaphthylene 120-12-7Anthracene 56-55-3Benzo (a) anthracene 205-99-2Benzo (b) fluoranthene 207-08-9Benzo (b) fluoranthene 207-08-9Benzo (g, h, i) perylene 50-32-8Benzo (a) pyrene 50-32-8Benzo (a) pyrene 53-70-3Fluoranthene 206-44-0Fluoranthene 86-73-7Fluoranthene 303-32-5Indeno (1, 2, 3-cd) pyrene 200-200-200-200-200-200-200-200-200-200	ATION UNITS: MDL 21 21 21 21 21 21 21 21 21 21 21 21 21	(ug/L or ug RL 53 53 53 53 53 53 53 53 53 53 53 53 53 5	

FORM I SV

FORM 1 BEMIVOLATILE ORGANICS ANALYSIS DATA	CLIENT SAMPLE NO. A SHEET
Lab Name: EMPIRICAL LABS Contract: STEP	61-05
AB Code: ELABN Case No.: NA SAS No.	.: NA SDG No.: STE.B07216
Matrix: (soil/water) SOIL	Lab Sample ID: 0607216-06
Sample wt/vol: 15.7 (g/mL) G	Lab File ID: 0721606
Moisture: 9 decanted: (Y/N) N	Date Sampled: 07/25/06 11:10
Sxtraction: (SepF/Cont/Sonc/Soxh) SOXH	Date Extracted:07/27/06
Concentrated Extract Volume: 500.0(uL)	Date Analyzed: 08/03/06 07:01
Injection Volume: 0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: NA	
CONCENTRA CAS NO. COMPOUND	TION UNITS: (ug/L or ug/Kg) UG/KG MDL RL CONC Q8

jection Volume: 0.5(uL)	Dilution Factor: 1.0
2 Cleanup: (Y/N) N pH;	r. NA
CAS NO. COMPOUND	CONCENTRATION UNITS: (Ug/L OT Ug/Kg) UG/KG R. MDL RL CONC 9
83-32-9Acenaphthene	21 52 U W
208-96-8Acenaphthylene	21 52 U 21 52 U
120-12-7Anthracene 56-55-3Benzo (a) anthracen	ne 21 52 U
205-99-2Benzo(b) fluoranth	
207-08-9Benzo (k) fluoranth	
191-24-2Benzo (g, h, i) peryl	1ene 21 52 52 US
50-32-8Benzo (a) pyrene	21 52 U
218-01-9Chrysene	21 52 U V
53-70-3Dibenz(a,h)anthra	
206-44-0Fluoranthene	
86-73-7Fluorene	21 52 U pyrene 21 52 U
193-39-5Indeno(1,2,3-cd); 91-20-3Naphthalene	$\begin{array}{c c} 21 \\ 21 \\ 21 \\ 52 \\ \end{array}$
85-01-8Phenanthrene	21 52 U V 21 52 U
129-00-0Pyrene	<u>Ži</u> <u>52</u>



FORM 1 SEMIVOLATILE ORGANICS ANALYSIS DA	CLIENT SAMPLE NO.
ab Name: EMPIRICAL LABS Contract: STEP	61-06
	io.:: NA SDG No.: STB.B07216
atrix: (soil/water) SOIL	Lab Sample ID: 0607216-07
ample wt/vol: 15.1 (g/mL) G	Lab File ID: 0721607
Moisture: 21 decanted: (Y/N) N	Date Sampled: 07/25/06 11:25
straction: (SepF/Cont/Sonc/Soxh) SOXH	Date Extracted:07/27/06
Concentrated Extract Volume: 500.0(uL)	Date Analyzed: 08/03/06 07:36
Injection Volume: 0.5(uL)	Dilution Factor: 1.9
SPC Cleanup: (Y/N) N pH: NA	

CONCENTRAT:	MDL	(ug/L or ug/l RL COM	
3-32-9Acenaphthene	25	enne and an and a second s	Uu
08-96-8Acenaphthylene	25	63	U
20-12-7Anthracene	25	6 63 - 2010	Contraction of United States
6-55-3Benzo (a) anthracene	25	66. 10 1663. (0////	U
05-99-2Benzo (b) fluoranthene	25	.63	U. C.
07-08-9Benzo (k) fluoranthene	25	S	
91-24-2Benzo (g, h, i) perylene	251	63	UL
0-32-8Benzo (a) pyrene	25	63	u u u
18-01-9Chrysene	25	63	U 🕨
3-70-3Dibenz (a, h) anthracene	25	63	UY U.
06-44-0Fluoranthene	25	555 - 5 53 (//////	UN
6-73-7Fluorene	25	63	us is
93-39-5Indenc (1, 2, 3-cd) pyrene	25	63 (1////	
1-20-3Naphthalene	25		J I
5-01-8Phenanthrene	25	63 (1///	U I
29-00-0Pvrene	25	63	J J

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Lab Name: EMPIRICAL LABS C			1 million of the second se]
Lab Code: ELABN Case No.:	NA SAS		x 10.: 314 3 ID: 06072	
Matrix: (soil/water) SOIL	a dalam to an		D: 016F0	
Sample wt/vol: 5.1 (g Level: (low/med) HIGH	gymu) e	and the second	bled: 07/2	ا المرجع محرف المرجع المرج المرجع المرجع
* Moisture: not dec. 12			yzed: 07/28	د و این این موالد میکانی موالد م موالین بالی مور مولی موالد
GC Column: RTX 502.2 ID: 0.53	3 (mm)		Factor: 1.0	ﻮﻧﻮ ﺍﻟﻮﮐﺎ ﺩﮐﺎ ﺷﺎﺭ ﺍﻟﺎﺭ ﺍﻟﺎﺭ ﺍﻟﺎ ﺩﮐﺎ ﻣﺎﺭ ﺍﻟﺎﺭ ﺍﻟﺎﺭ ﺍﻟﺎﺭ ﺍﻟﺎ ﺩﮐﺎ ﻣﺎﺭ ﺍﻟﺎﺭ ﺍﻟﺎ ﻣﺎﺩ ﺍﻟﺎ ﻣﺎﺩ ﺍﻟﺎ ﻣﺎﺩ ﺍﻟﺎ 1 ﻣﺎﺭ
Soil Extract Volume: 5000	· · · ·			100 (ul)
cas no. compo	CONCE	TRATICN UNITS: MDL	(ug/L or RL	ug/Kg) MG/KG کر CONC O کر
8006-51-9Gasoline Rang	ge Organics_	2.3	4.7	43 J 7
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Lab Name: EMPIRICAL LABS CO	ntract: STRP		· · · ·		7	42
Lab Code: ELAEN Case No.:)	NA SAS NO	NA	SDG N	o.: STE	.D07216	
Matrix: (soil/water) SOIL		Lab Sa	mple II	: 060723	16-02	
Sample wt/vol: 25.5 (g/	mL) G	Lab F	ile ID:	018R0.	201	
% Moisture: 12 decanted:	(Y/N) N	Date	Sampled:	.07/25	/06 10:4	40
Extraction: (SepF/Cont/Sonc/S	oxh) SONC	Date 1	Extracte	d:07/27	/06	
Concentrated Extract Volume:	1.9 (mL)	Date .	Analyzec	1: 08/02	/06 23:	24
Injection Volume: 1.0(aL)		Dilut	ion Fact	or: 10.	0	,
GPC Cleamup: (Y/N) N	the second s	Sulfur	Cleamy	2: (¥/M)	N	
	CONCENTRI					MG/RG Q
CAS NO. COMPOU	RND	MDL			CONC	
11-84-7Diesel Range C)rganics		45	45	80	0 D
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Lab Name: EMPIRICAL LABS Contract: S	TEP		<u> </u>
Lab Code: ELABN Case No.: NA S	As No.: NA SDG	No.: STE.GO	17216
Matrix: (soil/water) SOIL	Lab Sample	ID: 0607216-	03
Sample wt/vol: 5.7 (g/mL) G	Lab File ID	e 017F0101	
Level: (low/med) HIGH	Date Sampl	eđ: 07/25/(06 10:40
% Moisture: not dec. 10	Date Analyz	ed: 07/28/06	5 20:41
GC Column: RTX 502.2 ID: 0.53 (mm)	Dilution Fa	ctor: 1.0	
Soil Extract Volume: 5000(ul)	5 C .	t Volume:	والمتحية والمراجع المحارية والمحتور والمحمو تتمو تلحو تحموهم المعرو المراجع المراجع المراجع المراجع ا
Conc Casino. Compound	ENTRATION UNITS: MDL	(ug/L or ug, RL C	/xg) MG/KG 7 MC 07
8006-61-9Gasoline Range Organics	2.4	4.9	13 3
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DRO ORGANICS ANALYSIS DATA SI	61-02	-
Lab Name: EMPIRICAL LABS Contract: STEP		
Lab Code: ELABN Case No.: NA SAS N	an a	
Matrix: (soil/water) SOIL	Lab Sample ID: 0607216-03	
Sample wt/vol: 25.7 (g/mL) G	Lab File ID: 019R0201	
* Moisture: 10 decanted: (Y/N) N	Date Sampled: 07/25/06 10:4	
Extraction: (SepF/Cont/Sonc/Soxh) SONC Concentrated Extract Volume: 1.0(mL)	Date Extracted:07/27/05 Date Analyzed: 08/03/06 00:0	2 2
Injection Volume: 1.0 (uL)	Dilution Factor: 10.0	
GPC Cleamp: (Y/N) N pH: NA	an a	
CONCENTI	VATION UNITS: (ug/L or ug/Kg) M	G/X
CAS NO. COMPOUND	MDL RL CONC	
11-84-7Diesel Range Organics	43 43 1100	D
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Lab Name: EMPIRICAL I	a stafa	ct: STEP		l <u>assis</u>	
Lab Code: ELABN (• 11. ¥. 2		1	می از این از این	ا از این می از این از این این می از این از این این از این از
Matrix: (soil/water)				ID: 060721(ار این از مراجع شد این این می از این
Sample wt/vol:				D: 018F010	وموجوع ومقرق ومرور والمراجع والمراجع
Level: (low/med)				led: 07/25,	می می این از این می می می از این این این می می می این این امور کمی این این این این این این این این این ای
* Moisture: not dec.				zed: 07/28/	16 21:19
GC Column: RTX 502.2			1	actor: 1.0	
Soil Extract Volume:	2000 (01)			ot Volume:	مرامر فرامر مرام كوالوالعا والمراجات
Cas no.	COMPOUND	CONCENTRATIO	MDL	RL	IONC
8006-61-9Gaso	line Range Org	anics	2.9	5.8	31
199 7 - Henrik Berley, Balan and Balance (1997 - Balance Berley, Balance († 1997) 1997 - Balance Berley, Balance († 1997)			<u> </u>		
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Matrix: (soil/water) SOIL Sample wt/vol: 25.5 (g/mL) G % Moisture: 15 decanted: (Y/N) N).: NA SDG Lab Sample	: 020R020 d: 07/25/0 ted:07/27/0 ed: 08/03/0	 07216 -04 1 6 10:55
GPC Cleanup: (Y/N) N pH: NA	Sulfur Clear		I.
CONCENTR CAS NO. COMPOUND	ATION UNITS: MDL		I/KG) MG/KG Pw XNC Q Pw
11-84-7Diesel Range Organics	93	93	3500 D
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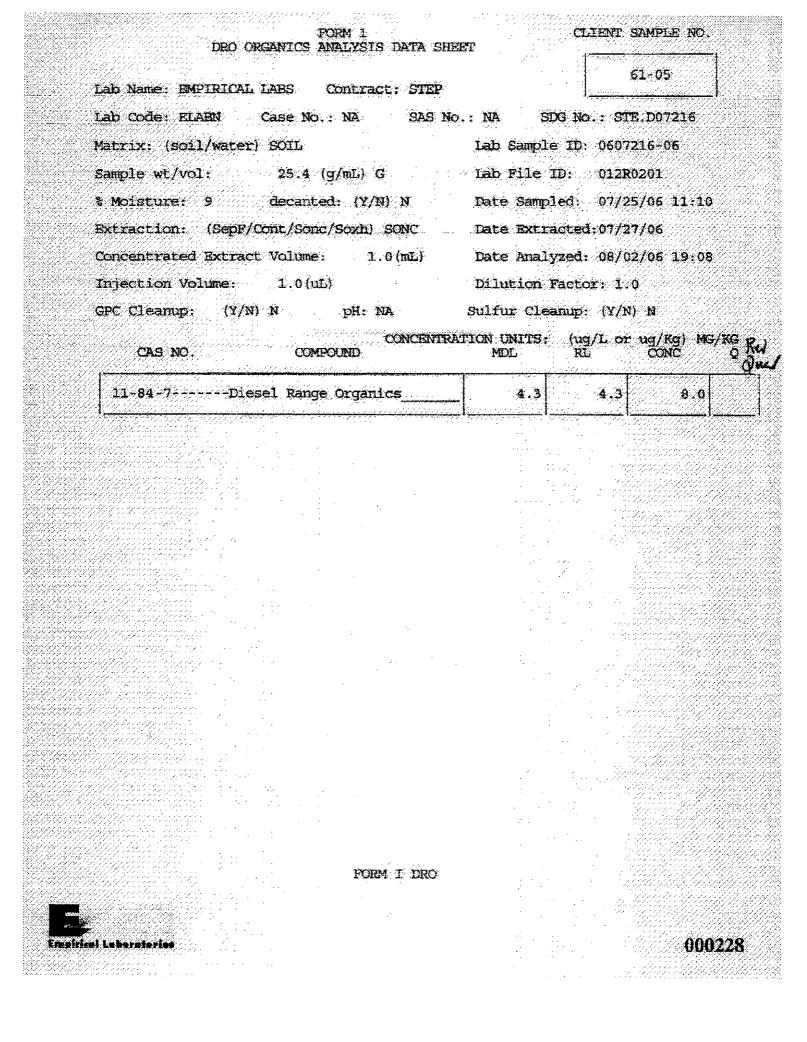
The second states of the contract of the contr	51-04
Lab Name: EMFIRICAL LABS Contract: ST Lab Code: ELABN Case No.: NA SAS	
Matrix: (soil/water) SOIL	Lab Sample ID: 0607216-05
Sample wt/vol: 4.9 (g/mL) G	Lab File ID: 019F0101
Level: (low/med) HIGH	Date Sampled: 07/25/06 11:05
% Moisture: not dec. 7	Date Analyzed: 07/28/06 21:56
GC Column: RTX 502.2 ID: 0.53 (nm)	Dilution Factor: 1.0
Soil Extract Volume: 5000(ul)	Soil Aliquor Volume: 100(ul
CONCER CRS NO. COMPOUND	NTRATION UNITS: (ug/l or ug/Kg) MG/K MDL RL CONC
8006-61-9Gasoline Range Organics_	2.7 5.5 25
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Lab Name: EMPIRICAL LABS Contract: ST	51-04
Lab Code: ELABN Case No. 1 NA SA	S No.: NA SDG No.: STE.D07216
Matrix: (soil/water) SOIL	Lab Sample ID: 0607216+05
Sample wt/vol: 25.1 (g/mL) G	Lab File ID: 021R0201
% Moisture: 7 decanted: (Y/N) N	Date Sampled: 07/25/06 11:05
Extraction: (SepF/Cont/Sonc/Soxh) SONC	Date Extracted:07/27/06
Concentrated Extract Volume: 1.0 (mL)	Date Analyzed: 08/03/06 01:32
Injection Volume: 1.0(uL)	Dilution Factor: 20.0
GPC Cleanup: (Y/N) N pH: NA	Sulfur Cleanup: (Y/N) N
CONCI CAS NO. COMPOUND	NTRATION UNITS: (ug/L or ug/Kg) MG/KG MDL KL CONC Q
11-84-7Diesel Range Organics	

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Lab Name: EMPIRICAL LABS Contract: STEP	61+05
Lab Code: ELAEN Case No.: NA SAS No	.: NA SDG No.: STE.G07216
Matrix: (soil/water) SOIL	Lab Sample ID: 0607216-06
Sample wt/vol: 5.3 (g/mL) G	Lab File ID: 020F0101
Level: (low/med) HIGH	Date Sampled: 07/25/06 11:10
<pre>% Moisture: not dec. 9</pre>	Date Analyzed: 07/28/06 22:34
GC Column: RTX 502.2 ID: 0.53 (nm)	Dilution Factor: 1.0
Soil Extract Volume: 5000(ul)	Soil Aliquot Volume: 100(ul)
CONCENTRA CAS NO. COMPOUND	NTION UNITS: (ug/L or ug/Kg) MG/KG MDL RL CONC O Rw Operations
8006-61-9Gasoline Range Organics	2.6 5.2 5.7
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Lab Name: EMPIRICAL LABS Contract: STEP	51-06
Lab Code: ELABN Case No.: NA SAS N	o.: NA SDG No.: STE.G07216
Matrix: (soil/water) SOIL	Lab Sample ID: 0607216-07
n 1997 - 1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 1997 -	Lab File ID: 021F0101
Level: (low/med) HIGH	Date Sampled: 07/25/06 11:25
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GC Column: RTX 502.2 ID: 0.53 (mm)	Dilution Factor: 1.0
Soil Extract Volume: 5000 (ul)	Soil Aliquot Volume: 100 (ul
CONCENTR CAS NO. COMPOUND	ATION UNITS: (ug/L or ug/Kg) MG/H MDL RL CONC
8006-61-9Gasoline Range Organics	4.4 8.8 8.0 J
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	61-06	
Leb Name: EMPIRICAL LABS Contract: ST		
	NO.: NA SDG NO.: STE.D072	an a
Matrix: (soil/water) SOIL	Lab Sample ID: 0607216-07	
Sample wt/vol: 25.5 (g/mL) G	Lab File ID: 035R0101	
% Moisture: 21 decanted: (Y/N) N	Date Sampled: 07/25/06 1	1:25
Extraction: (SepF/Cont/Sonc/Soxh) SONC	Date Extracted:07/27/06	
Concentrated Extract Volume: 1.0(mL)	Date Analyzed: 08/01/06 1	4:53
Injection Volume: 1.0(uL)	Dilution Factor: 1.0	an in the
GPC Cleamp: (Y/N) N pH: NA	Sulfur Cleanup: (Y/N) N	
	WRATION UNITS: (ug/L or ug/Kg	
CAS NO. COMPOUND	MDL RL CONC	2
11-84-7Diesel Range Organics	4.9 4.9	U .
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