Final

Site Investigation Report
Former Fog Oil Storage Area
West of the Skeet Range, Parcel 122(7)

Fort McClellan
Calhoun County, Alabama

Prepared for:

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Task Order CK05
Contract No. DACA21-96-D-0018
IT Project No. 774645

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Revision 0

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Executive Summary

In accordance with Contract Number DACA21-96-D-0018, Task Order CK05, IT Corporation completed a site investigation (SI) at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), at Fort McClellan in Calhoun County, Alabama. The SI was conducted to determine whether chemical constituents are present at the site, and, if present, whether the concentrations present an unacceptable risk to human health or the environment. The SI at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), consisted of the sampling and analysis of 63 surface soil screening samples, 4 subsurface soil samples, 1 surface water sample, and 1 sediment sample. Four direct-push soil borings installed at the site provided site-specific geological characterization information.

The surface soils screening for hydrocarbons at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), indicated that total petroleum hydrocarbons-diesel range organics (TPH-DRO) were present in surface soils. TPH-DRO concentrations ranged from less than 11 mg/kg to 100 mg/kg. However, the TPH-DRO data were collected for screening purposes only; therefore, instrument calibration requirements for the method were waived. Consequently, the quantitative results of this screening level TPH-DRO analysis should be considered estimated.

Chemical analysis of the four subsurface soil samples (including two subsurface soil samples that were relocated to the locations with the highest surface soil screening results), one surface water sample, and one sediment sample was limited to SVOCs only. SVOCs were not detected in any of the subsurface soil, surface water, or sediment samples collected at the site. In the future land-use scenario, portions of Parcel 122(7) will be reused for retail, passive recreation, and for the Eastern Bypass. Under these land-use scenarios, the concentrations of TPH-DRO in surface soils are not expected to pose a significant threat to human health or ecological receptors.

Based on the results of the SI, past operations at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), do not appear to have adversely impacted the environment. The low levels of TPH-DRO detected in surface soils at the site do not pose an unacceptable risk to human health and the environment. Therefore, IT recommends “No Further Action” and unrestricted land reuse with regard to hazardous, toxic, and radioactive waste at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7).

1.0 Introduction

The U.S. Army has selected Fort McClellan (FTMC) located in Calhoun County, Alabama, for closure by the Base Realignment and Closure (BRAC) Commission under Public Laws 100-526 and 101-510. The 1990 Base Closure Act, Public Law 101-510, established the process by which U.S. Department of Defense (DOD) installations would be closed or realigned. The BRAC Environmental Restoration Program requires investigation and cleanup of federal properties prior to transfer to the public domain. The U.S. Army is conducting environmental studies of the impact of suspected contaminants at parcels at FTMC under the management of the U.S. Army Corps of Engineers (USACE)-Mobile District. The USACE contracted with IT Corporation (IT) to perform the site investigation (SI) at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), under Contract Number DACA21-96-D-0018, Task Order CK05.

This SI report presents specific information and results compiled from the SI, including field sampling and analysis, conducted at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7).

1.1 Project Description

The Former Fog Oil Storage Area West of the Skeet Range was identified as an area to be investigated prior to property transfer. The site was classified as a Category 7 site in the environmental baseline survey (EBS) (Environmental Science and Engineering, Inc. [ESE], 1998). Category 7 sites are areas that are not evaluated and/or that require further evaluation.

A site-specific field sampling plan (SFSP) attachment (IT, 1998a) and a site-specific safety and health plan (SSHP) attachment were finalized in December 1998. The SFSP and SSHP were prepared to provide technical guidance for sample collection and analysis at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7). The SFSP was used in conjunction with the SSHP as attachments to the installation-wide work plan (IT, 1998b) and the installation-wide sampling and analysis plan (SAP) (IT, 2000a). The SAP includes the installation-wide safety and health plan (SHP) and quality assurance plan (QAP).

The SI included fieldwork to collect 63 surface soil screening samples, 4 subsurface soil samples, 1 surface water sample, and 1 sediment sample. Data from the field investigation were used to determine whether potential site-specific chemicals are present at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7).

1.2 Purpose and Objectives

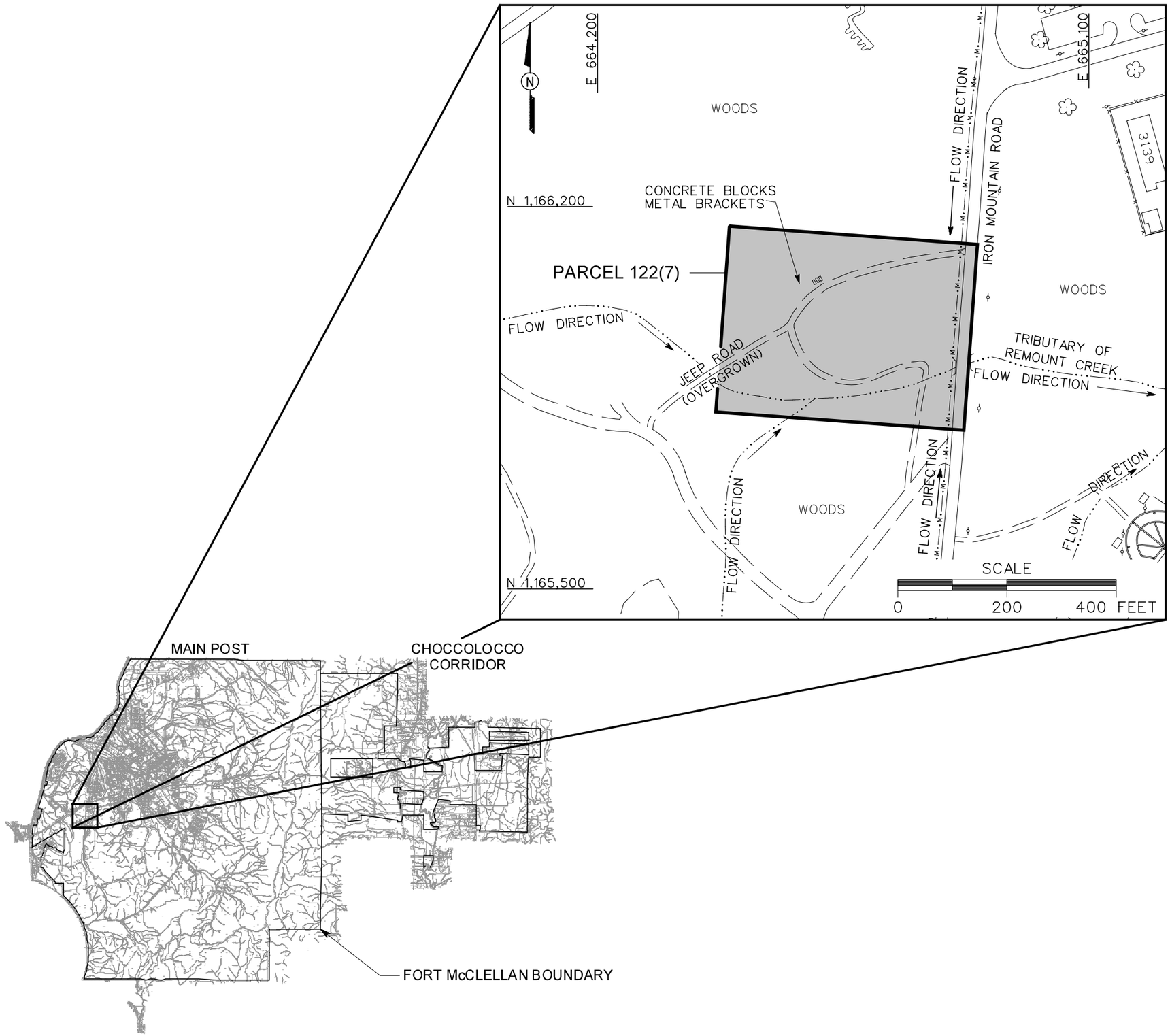
The SI program was designed to collect data from site media and provide a level of defensible data and information in sufficient detail to determine whether chemical constituents are present at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), at concentrations that present an unacceptable risk to human health or the environment. Based on the conclusions presented in this SI report, the BRAC Cleanup Team will decide either to propose "No Further Action" at the site or to conduct additional work at the site.

1.3 Site Description and History

The Former Fog Oil Storage Area West of the Skeet Range is located just west of Iron Mountain Road on the Main Post near the skeet range (Figure 1-1). The dates of use for the site could not be determined. The parcel, which covers approximately 3.5 acres, is bounded by mostly wooded or undeveloped areas (Figure 1-2). The overgrown remains of a dirt road traverse the site from northeast to southwest. This road and the cleared area (Parcel 122[7]) are visible only in the 1949 photograph composite of the Environmental Photographic Interpretation Center report (U.S. Environmental Protection Agency [EPA], 1990). The entire site is now covered with trees and brush. Near the center of the site, concrete blocks, metal stays, and brackets were found by IT personnel during the June 1998 site walk. These items may be the remains of fog oil drum racks.

Fog oil was used by the military to produce an obscurant for concealing troops, beach landings, and supplies during World War II and the Korean War. Fog oil smoke can be produced from mobile personnel carriers (mobile smoke) or from stationary locations (static smoke). The petroleum distillate the military labels "fog oil" is also used as diesel engine lubricating oil. Industrial uses of the oil are in metal-working oils, cutting oils, newspaper ink, agricultural pesticides, livestock spray, and medicinal uses such as laxatives (3D International Environmental Group [3D], 1996).

Fog oil is the middle distillate product of crude petroleum oil. There is not an exact formulation for fog oil, and it can be described as a mineral oil, petroleum distillate, or hydrotreated heavy napthenic base oil (3D, 1996). The military has used standard grade fuels (SGF 1 and SGF 2), diesel fuel, jet fuel petroleum grade 4, and kerosene to produce smoke (3D, 1996). SGF 2 is similar to Society of Automotive Engineers No. 20 motor oil (Brubaker, et al., 1992). SGF 2 has not been used since 1956; SGF 1 has not been supplied to the military since the 1970s (3D, 1996). SGF 2 has been modified to reduce aromatic hydrocarbons. An analysis of SGF 2



LEGEND

- UNIMPROVED ROADS AND PARKING
- PAVED ROADS AND PARKING
- BUILDING
- TREES / TREELINE
- PARCEL BOUNDARY
- CULVERT WITH HEADWALL
- SURFACE DRAINAGE / CREEK
- MANMADE SURFACE DRAINAGE FEATURE
- UTILITY POLE

FIGURE 1-1
SITE LOCATION MAP
FORMER FOG OIL STORAGE AREA
WEST OF SKEET RANGE
PARCEL 122(7)

U. S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
FORT McCLELLAN
CALHOUN COUNTY, ALABAMA
Contract No. DACA21-96-D-0018

IT CORPORATION
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DWG. NO.: ...\774645es.618 | PROJ. NO.: 774645
INITIATOR: J. REMO | PROJ. MGR.: J. YACOUB
DRAFT. CHCK. BY: | ENGR. CHCK. BY: S. MORAN
DATE LAST REV.: | DRAWN BY:
STARTING DATE: 09/22/00 | DRAWN BY: D. BILLINGSLEY
09/29/00 10:13:07
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awsmith

E 664,300

E 665,300

N

PARCEL 122(7)

N 1,166,100

N 1,165,500

CONCRETE BLOCKS
METAL BRACKETS

JEEP ROAD (OVERGROWN)

FLOW DIRECTION

TRIBUTARY OF REMOUNT CREEK

REMOUNT CREEK

IRON MOUNTAIN ROAD

WOODS

POND

SKEET RANGE/TRAP

3139

3149

850

825

800

LEGEND

- UNIMPROVED ROADS AND PARKING
- PAVED ROADS AND PARKING
- BUILDING
- TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
- TREES / TREELINE
- PARCEL BOUNDARY
- CULVERT WITH HEADWALL
- SURFACE DRAINAGE / CREEK
- MANMADE SURFACE DRAINAGE FEATURE
- FENCE
- UTILITY POLE
- DAM

SCALE
0 100 200 FEET

FIGURE 1-2
SITE MAP
FORMER FOG OIL STORAGE AREA
WEST OF SKEET RANGE
PARCEL 122(7)

U. S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
FORT McCLELLAN
CALHOUN COUNTY, ALABAMA
Contract No. DACA21-96-D-0018

IT CORPORATION
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PROJ. NO.: 774645
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PROJ. MGR.: J. YACOUB
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performed in August 1995 indicated the presence of aliphatic, alkane, and alkene hydrocarbons (3D, 1996); aromatic hydrocarbons were not detected in the sample. Early fog oils contained approximately 50 percent aliphatic compounds and 50 percent aromatic compounds.

The Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), falls within the "Possible Explosive Ordnance Impact Area" shown on Plate 10 of the FTMC Archive Search Report, Maps (USACE, 1998).

Parcel 122(7) slopes to the southeast and ranges in elevation from approximately 805 to 835 feet above mean sea level. Surface runoff follows topography and flows south-southeast toward a tributary to Remount Creek, which runs west to east through the southern portion of the site.

2.0 Previous Investigations

An EBS was conducted by ESE to document current environmental conditions of all FTMC property (ESE, 1998). The study was to identify sites that, based on available information, have no history of contamination and comply with DOD guidance for fast-track cleanup at closing installations. The EBS also provides a baseline picture of FTMC properties by identifying and categorizing the properties by seven criteria:

1. Areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas)

2. Areas where only release or disposal of petroleum products has occurred

3. Areas where release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial response

4. Areas where release, disposal, and/or migration of hazardous substances has occurred, and all removal or remedial actions to protect human health and the environment have been taken

5. Areas where release, disposal, and/or migration of hazardous substances has occurred, and removal or remedial actions are underway, but all required remedial actions have not yet been taken

6. Areas where release, disposal, and/or migration of hazardous substances has occurred, but required actions have not yet been implemented

7. Areas that are not evaluated or require additional evaluation.

The EBS was conducted in accordance with Community Environmental Response Facilitation Act (CERFA) (CERFA-Public Law 102-426) protocols and DOD policy regarding contamination assessment. Record searches and reviews were performed on all reasonably available documents from FTMC, the Alabama Department of Environmental Management (ADEM), EPA Region IV, and Calhoun County, as well as a database search of Comprehensive Environmental Response, Compensation, and Liability Act-regulated substances, petroleum products, and Resource Conservation and Recovery Act-regulated facilities. Available historical maps and aerial photographs were reviewed to document historical land uses. Personal and telephone interviews of past and present FTMC employees and military personnel were

conducted. In addition, visual site inspections were conducted to verify conditions of specific property parcels.

The Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), was classified as a Category 7 CERFA site. The site lacked adequate documentation and, therefore, required additional evaluation to determine the environmental condition of the parcel.

3.0 Current Site Investigation Activities

This chapter summarizes SI activities conducted by IT at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), including unexploded ordnance (UXO) avoidance activities, hydrocarbon screening, and environmental sampling and analysis.

3.1 UXO Avoidance

UXO avoidance was performed at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), following methodology outlined in Section 4.1.7 of the SAP (IT, 2000a). IT UXO personnel used a Schonstedt Heliflux Magnetic Locator to perform a surface sweep of the parcel prior to site access. After the parcel was cleared for access, sample locations were cleared using a Foerster Ferex Electromagnetic Detector following procedures outlined in Section 4.1.7.3 of the SAP (IT, 2000a).

3.2 Hydrocarbon Screening

Surface soil screening samples for hydrocarbon analysis were collected from 63 locations at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7). The surface soil screening sample locations and rationale are presented in Table 3-1. The sampling locations were placed at 50-foot intervals in a grid covering the approximately 2-acre parcel, as shown on Figure 3-1. The surface soil screening samples were analyzed for total petroleum hydrocarbons-diesel range organics (TPH-DRO) according to the methodology presented in Screening Methodology in this section.

Sample Collection. Surface soil screening samples were collected from the upper 0.5 foot of soil with direct-push technology using the methodology specified in Section 4.9.1.1 of the SAP (IT, 2000a). Surface soil screening samples were collected by first removing surface debris, such as rocks and vegetation, from the immediate sample area. The soil was collected with the sampling device and screened with a photoionization detector (PID) in accordance with Section 4.7.1.1 of the SAP (IT, 2000a). The sample was transferred to a clean stainless-steel bowl, homogenized, and placed in the appropriate sample containers. Sample collection logs are included in Appendix A.

Screening Methodology. Surface soil analyses for hydrocarbon compounds were performed by Quanterra Environmental Services in Knoxville, Tennessee using a screening-level version of EPA Method 8015B for TPH-DRO. This analytical method was selected because fog oil is a middle distillate product of crude petroleum oil and consists of various mixtures of medium to

Table 3-1

Sampling Locations and Rationale
Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7)
Fort McClellan, Calhoun County, Alabama

Sample Designation	Media Sampled	Sample Location Rationale
Surface Soil Screening, Locations PPMP-122-SS01 through SS63	Surface Soil	Surface soil screening samples for heavy hydrocarbons analysis were collected at 63 locations within the parcel. The screening locations were evenly spaced on 50-foot centers in a grid covering approximately 2 acres.
PPMP-122-GP01	Subsurface Soil	A subsurface soil sample was collected at the highest elevation within the parcel. This sampling location is in the northwest corner of the parcel and is upgradient of any potential contaminants on the site.
PPMP-122-GP02	Subsurface Soil	A subsurface soil sample was collected at a surface soil screening location (PPMP-122-SS11) that had elevated TPH-DRO concentrations.
PPMP-122-GP03	Subsurface Soil	A subsurface soil sample was collected at a surface soil screening location (PPMP-122-SS30) that had elevated TPH-DRO concentrations.
PPMP-122-GP04	Subsurface Soil	A subsurface soil sample was collected from a low elevation within the parcel, where runoff could collect before infiltrating to the subsurface soil or migrating to off site surface water bodies.
PPMP-122-SW/SD01	Surface Water Sediment	Surface water and sediment samples were collected from an intermittent tributary to Remount Creek that runs through the southern portion of the parcel.

E 664,300

E 665,300

N 1,166,100

N 1,165,500

PARCEL 122(7)

PPMP-122-GP01

PPMP-122-GP02

PPMP-122-GP03

PPMP-122-GP04

PPMP-122-SW/SD01

SS01 SS02 SS03 SS04 SS05 SS06 SS07 SS08 SS09 SS10 SS11 SS12 SS13 SS14 SS15 SS16 SS17 SS18 SS19 SS20 SS21 SS22 SS23 SS24 SS25 SS26 SS27 SS28 SS29 SS30 SS31 SS32 SS33 SS34 SS35 SS36 SS37 SS38 SS39 SS40 SS41 SS42 SS43 SS44 SS45 SS46 SS47 SS48 SS49 SS50 SS51 SS52 SS53 SS54 SS55 SS56 SS57 SS58 SS59 SS60 SS61 SS62 SS63

CONCRETE BLOCKS
METAL BRACKETS

FLOW DIRECTION

JEEP ROAD (OVERGROWN)

TRIBUTARY OF REMOUNT CREEK

IRON MOUNTAIN ROAD

REMOUNT CREEK

WOODS

POND

SKEET RANGE/TRAP

850 825 800 3139 3149

SCALE
0 100 200 FEET

LEGEND

- UNIMPROVED ROADS AND PARKING
- PAVED ROADS AND PARKING
- BUILDING
- TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
- TREES / TREELINE
- PARCEL BOUNDARY
- CULVERT WITH HEADWALL
- SURFACE DRAINAGE / CREEK
- MANMADE SURFACE DRAINAGE FEATURE
- DAM
- FENCE
- UTILITY POLE
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- TPH-DRO FIELD SCREENING SURFACE SOIL SAMPLE LOCATION
- SUBSURFACE SOIL SAMPLE LOCATION

NOTE:

1. TOTAL PETROLEUM HYDROCARBONS-DIESEL RANGE ORGANIC (TPH-DRO) FIELD SCREENING SURFACE SOIL SAMPLES WITH DESIGNATION SSXX HAVE A PREFIX OF PPMP-122-.

FIGURE 3-1
SAMPLE LOCATION MAP
FORMER FOG OIL STORAGE AREA
WEST OF SKEET RANGE
PARCEL 122(7)

U. S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
FORT McCLELLAN
CALHOUN COUNTY, ALABAMA
Contract No. DACA21-96-D-0018

IT CORPORATION
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DATE LAST REV.:
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heavy molecular weight hydrocarbon compounds found in fuels and motor oil from which fog oil is derived (IT, 1998a). Instrument calibration requirements for the screening-level analysis were waived to facilitate the analysis. As such, the quantitative results of this screening level TPH-DRO analysis should be considered estimated. This approach was selected over the on-site gas chromatography analysis described in the SFSP (IT,1998a) because it was more cost effective for the small number of samples collected.

Based on the TPH-DRO surface soil screening results, two of the four proposed subsurface soil borings (PPMP-122-GP02 and PPMP-122-GP03) were relocated to areas where the surface soil screening data indicated elevated concentrations of TPH-DRO. Section 5.1 presents the surface soil screening results. Appendix A contains the sample collection logs, and Appendix B contains the analytical reports for the surface soil screening samples.

3.3 Environmental Sampling

The environmental sampling performed during the SI at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), included the collection of subsurface soil samples and surface water and sediment samples for chemical analysis. The sample locations were determined by observing site physical characteristics during a site walkover, by reviewing historical documents pertaining to activities conducted at the site, and based on the surface soil hydrocarbon screening results. The sample locations, media, and rationale are summarized in Table 3-1. Sampling locations are shown on Figure 3-1. Samples were submitted for laboratory analysis of site-related parameters listed in Section 3.5.

3.3.1 Subsurface Soil Sampling

Subsurface soil samples were collected from four soil borings at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), as shown on Figure 3-1. Subsurface soil sampling locations and rationale are presented in Table 3-1. Subsurface soil sample designations, depths, and quality assurance/quality control (QA/QC) samples are listed in Table 3-2. Soil boring sampling locations were determined in the field by the on-site geologist based on the sampling rationale, the results of surface soil screening, the presence of surface structures, and site topography. IT contracted TEG, Inc., a direct-push technology subcontractor, to assist in subsurface soil sample collection.

Table 3-2

Subsurface Soil Sample Designations and QA/QC Samples
Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7)
Fort McClellan, Calhoun County, Alabama

Sample Location	Sample Designation	Sample Depth (ft. bgs)	QA/QC Samples			Analytical Suite
			Field Duplicates	Field Splits	MS/MSD	
PPMP-122-GP01	PPMP-122-GP01-DS-KY0001-REG	6-8				TCL SVOCs
PPMP-122-GP02	PPMP-122-GP02-DS-KY0002-REG	2-5				TCL SVOCs
PPMP-122-GP03	PPMP-122-GP03-DS-KY0003-REG	6-8				TCL SVOCs
PPMP-122-GP04	PPMP-122-GP04-DS-KY0004-REG	3-6	PPMP-122-GP04-DS-KY0005-FD	PPMP-122-GP04-DS-KY0006-FS	PPMP-122-GP04-DS-KY0004-MS PPMP-122-GP04-DS-KY0004-MSD	TCL SVOCs

FD - Field duplicate.
FS - Field split.
ft. bgs - feet below ground surface.
MS/MSD - Matrix spike/matrix spike duplicate.
QA/QC - Quality assurance/quality control.
SVOC - Semivolatile organic compound.
TCL - Target compound list.

Sample Collection. Subsurface soil samples were collected from soil borings at depths greater than 1 foot below ground surface (bgs) in the unsaturated zone. The soil borings were advanced and samples collected using the direct-push sampling procedures specified in Section 4.9.1.1 of the SAP (IT, 2000a). Sample collection logs are included in Appendix A. The samples were analyzed for semivolatile organic compounds (SVOC) using EPA Method 8270C.

Subsurface soil samples were collected continuously until direct-push sampler refusal was encountered. Samples were field screened using a PID in accordance with Section 4.7.1.1 of the SAP (IT, 2000a) to measure for volatile organic vapors. The sample displaying the highest reading was selected and sent to the laboratory for analysis; however, at those locations where PID readings were not greater than background, the deepest sample interval above the saturated zone was submitted for analysis. The sample was transferred from the sampler to a clean stainless-steel bowl, homogenized, and placed in the appropriate sample containers. Samples submitted for laboratory analysis are summarized in Table 3-2. The on-site geologist constructed a detailed boring log for each soil boring. The boring log for each borehole is included in Appendix C.

3.3.2 Surface Water Sampling

One surface water sample was collected from the tributary to Remount Creek in the southern portion of Parcel 122(7), as shown on Figure 3-1. The surface water sampling location and rationale are listed in Table 3-1. The surface water sample designation and QA/QC samples are listed in Table 3-3.

Sample Collection. The surface water sample was collected in accordance with the procedures specified in Section 4.9.1.3 of the SAP (IT, 2000a). The sample was collected by dipping a stainless-steel pitcher in the water and pouring the water into the appropriate sample container. The sample was collected after the field parameters had been measured using a calibrated water quality meter. The field parameter readings are presented in Table 3-4. The sample collection log is included in Appendix A. The sample was analyzed for SVOCs using EPA Method 8270C.

3.3.3 Sediment Sampling

One sediment sample was collected at the same location as the surface water sample, as shown on Figure 3-1. The sediment sampling location and rationale are listed in Table 3-1. The sediment sample designation is listed in Table 3-3.

Table 3-3

Surface Water and Sediment Sample Designations and QA/QC Samples
Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7)
Fort McClellan, Calhoun County, Alabama

Sample Location	Sample Designation	Sample Depth (ft. bgs)	QA/QC Samples			Analytical Suite
			Field Duplicates	Field Splits	MS/MSD	
PPMP-122-SW/SD01	PPMP-122-SW/SD01-SW-KY2001-REG PPMP-122-SW/SD01-SD-KY1001-REG	NA 0-0.5	PPMP-122-SW/SD01-SW-KY2002-FD	PPMP-122-SW/SD01-SW- KY2003-FS		TCL SVOCs, TOC, Grain size (sediment only)

FD - Field duplicate.
FS - Field split.
ft. bgs - feet below ground surface.
MS/MSD - Matrix spike/matrix spike duplicate.
NA - Not applicable.
QA/QC - Quality assurance/quality control.
SVOC - Semivolatile organic compound.
TCL - Target compound list.
TOC - Total organic carbon.

Table 3-4

Surface Water Field Parameters
Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7)
Fort McClellan, Calhoun County, Alabama

Sample Location	Date	Specific Conductivity (mS/cm)[a]	Dissolved Oxygen (mg/L)	ORP (mV)	Temperature (°C)	Turbidity (NTU)	pH (SU)
PPMP-122-SW/SD01	8-Feb-99	0.243	5.8	229.1	11.76	5.7	5.29

[a] Specific conductivity values standardized to millisiemens per centimeter.

°C - Degrees Celsius.
mg/L - Milligrams per liter.
mS/cm - millisiemens per centimeter.
mV - Millivolts.
NTU - Nephelometric turbidity unit.
ORP - Oxidation-reduction potential.
SU - Standard unit.

Sample Collection. The sediment sample was collected in accordance with the procedures outlined in Section 4.9.1.2 of the SAP (IT, 2000a). The sample was collected from the upper 0.5 foot of sediment with a stainless-steel hand auger. The sediment was transferred to a stainless-steel bowl, homogenized, and placed in the appropriate sample containers. The sample collection log is included in Appendix A. The sample was analyzed for the parameters listed in Table 3-3 using methods outlined in Section 3.5.

3.4 Surveying of Sample Locations

Sample locations were surveyed using global positioning system survey techniques described in Section 4.3 of the SAP (IT, 2000a) and conventional civil survey techniques described in Section 4.19 of the SAP (IT, 2000a). Horizontal coordinates were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum of 1983. Elevations were referenced to the North American Vertical Datum of 1988. Horizontal coordinates and elevations are included in Appendix D.

3.5 Analytical Program

The subsurface soil, surface water, and sediment samples collected during the SI were analyzed for target compound list SVOCs (EPA Method 8270C). In addition, the sediment sample was analyzed for total organic carbon (EPA Method 9060) and grain size (American Society for Testing and Materials Method D421/D422). The specific suite of analyses performed was based on the potential site-specific chemicals historically at the site and EPA, ADEM, FTMC, and USACE requirements.

The samples were analyzed using EPA SW-846 methods, including Update III methods where applicable, as presented in Table 6-1 in Appendix B of the SAP (IT, 2000a). Data were reported and evaluated in accordance with Corps of Engineers South Atlantic Savannah Level B criteria (USACE, 1994) and the stipulated requirements for the generation of definitive data (Section 3.1.2 of Appendix B of the SAP [IT, 2000a]). Chemical data were reported via hard-copy data packages by the laboratory using Contract Laboratory Program-like forms. These packages were validated in accordance with EPA National Functional Guidelines by Level III criteria. A summary of validated data is included in Appendix E. The Data Validation Summary Report is included as Appendix F.

3.6 Sample Preservation, Packaging, and Shipping

Sample preservation, packaging, and shipping followed requirements specified in Section 4.13.2 of the SAP (IT, 2000a). Sample containers, sample volumes, preservatives, and holding times for the analyses required in this SI are listed in Chapter 5.0, Table 5-1, of Appendix B of the SAP

(IT, 2000a). Sample documentation and chain-of-custody records were recorded as specified in Section 4.13 of the SAP (IT, 2000a).

Completed analysis request and chain of custody records (Appendix A) were secured and included with each shipment of sample coolers to Quanterra Environmental Services in Knoxville, Tennessee. Split samples were shipped to USACE South Atlantic Division Laboratory in Marietta, Georgia.

3.7 Investigation-Derived Waste Management and Disposal

Investigation-derived waste (IDW) was managed and disposed as outlined in Appendix D of the SAP (IT, 2000a). The IDW generated during the SI at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), was segregated as follows:

- Soil boring cuttings
- Decontamination fluids
- Personal protective equipment.

Solid IDW was stored inside the fenced area surrounding Buildings 335 and 336 in lined roll-off bins prior to characterization and final disposal. Solid IDW was characterized using toxicity characteristic leaching procedure analysis. Based on the results, soil boring cuttings and personal protective equipment generated during the SI at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), were disposed as nonregulated waste at the Industrial Waste Landfill on the Main Post of FTMC.

Liquid IDW was contained in the existing 20,000-gallon sump associated with the Building T-338 vehicle washrack. Liquid IDW was characterized by volatile organic compound, SVOC, and metals analyses. Based on the analyses, liquid IDW was discharged as nonregulated waste to the FTMC wastewater treatment plant on the Main Post.

3.8 Variances/Nonconformances

One variance to the SFSP was recorded during completion of the SI at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7). The variance did not alter the intent of the investigation or the sampling rationale presented in Table 4-2 of the SFSP (IT, 1998a). The variance to the SFSP is summarized in Table 3-5 and included in Appendix G.

There were not any nonconformances to the SFSP recorded during completion of the SI at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7).

Table 3-5

Variance to the Site-Specific Field Sampling Plan
Former Fog Oil Storage Area, Parcel 122(7)
Fort McClellan, Calhoun County, Alabama

Variance to the SFSP	Justification for Variance	Impact to Site Investigation
PPMP-122-GP02 and PPMP-122-GP03 were relocated from their proposed locations. PPMP-122-GP02 was moved approximately 50 feet southwest, and PPMP-122-GP03 was moved approximately 150 feet east.	The two subsurface soil samples were relocated to areas within the parcel that contained elevated concentrations of total petroleum hydrocarbons-diesel range organics in the soil.	Relocating the two subsurface soil samples allowed more accurate determination of the subsurface soil contamination.

3.9 Data Quality

The subsurface soil, surface water, and sediment analytical data are presented in tabular form in Appendix E. The field samples were collected, documented, handled, analyzed, and reported in a manner consistent with the SI work plan; the FTMC SAP and QAP; and standard, accepted methods and procedures. Sample collection logs pertaining to the collection of these samples were reviewed and organized for this report and are included in Appendix A. As discussed in Section 3.8, one variance to the SFSP was recorded during completion of the SI. However, the variance did not impact the usability of the data.

Data Validation. A complete (100 percent) Level III data validation effort was performed on the reported subsurface soil, surface water, and sediment analytical data. The TPH-DRO soil screening sample data were not validated. Appendix F consists of a data validation summary report that was prepared to discuss the results of the validation. Selected results were rejected or otherwise qualified based on the implementation of accepted data validation procedures and practices. These qualified parameters are highlighted in the report. The validation-assigned qualifiers were added to the FTMC IT Environmental Management System™ database for tracking and reporting. The data presented in this report, except where qualified, meet the principle data quality objective for this SI.

4.0 Site Characterization

Subsurface investigations performed at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), provided soil data used to characterize the geology of the site. Because no wells were installed at Parcel 122(7), a hydrogeological characterization was not performed.

4.1 Regional and Site Geology

4.1.1 Regional Geology

Calhoun County includes parts of two physiographic provinces, the Piedmont Upland Province and the Valley and Ridge Province. The Piedmont Upland Province occupies the extreme eastern and southeastern portions of the county and is characterized by metamorphosed sedimentary rocks. The generally accepted range in age of these metamorphics is Cambrian to Devonian.

The majority of Calhoun County, including the Main Post of FTMC, lies within the Appalachian fold-and-thrust structural belt (Valley and Ridge Province) where southeastward-dipping thrust faults with associated minor folding are the predominant structural features. The fold-and-thrust belt consists of Paleozoic sedimentary rocks that have been asymmetrically folded and thrust-faulted, with major structures and faults striking in a northeast-southwest direction.

Northwestward transport of the Paleozoic rock sequence along the thrust faults has resulted in the imbricate stacking of large slabs of rock referred to as thrust sheets. Within an individual thrust sheet, smaller faults may splay off the larger thrust fault, resulting in imbricate stacking of rock units within an individual thrust sheet (Osborne and Szabo, 1984). Geologic contacts in this region generally strike parallel to the faults, and repetition of lithologic units is common in vertical sequences. Geologic formations within the Valley and Ridge Province portion of Calhoun County have been mapped by Warman and Causey (1962), Osborne and Szabo (1984), and Moser and DeJarnette (1992), and vary in age from Lower Cambrian to Pennsylvanian.

The basal unit of the sedimentary sequence in Calhoun County is the Cambrian Chilhowee Group. The Chilhowee Group consists of the Cochran, Nichols, Wilson Ridge, and Weisner Formations (Osborne and Szabo, 1984) but in Calhoun County is either undifferentiated or divided into the Cochran and Nichols Formations and an upper undifferentiated Wilson Ridge and Weisner Formation. The Cochran is composed of poorly sorted arkosic sandstone and conglomerate with interbeds of greenish-gray siltstone and mudstone. Massive to laminated, greenish-gray and black mudstone makes up the Nichols Formation, with thin interbeds of

siltstone and very fine-grained sandstone (Szabo et al., 1988). These two formations are mapped only in the eastern part of the county.

The Wilson Ridge and Weisner Formations are undifferentiated in Calhoun County and consist of both coarse-grained and fine-grained clastics. The coarse-grained facies appears to dominate the unit and consists primarily of coarse-grained, vitreous quartzite, and friable, fine- to coarse-grained, orthoquartzitic sandstone, both of which locally contain conglomerate. The fine-grained facies consists of sandy and micaceous shale and silty, micaceous mudstone which are locally interbedded with the coarse clastic rocks. The abundance of orthoquartzitic sandstone and quartzite suggests that most of the Chilhowee Group bedrock in the vicinity of FTMC belongs to the Weisner Formation (Osborne and Szabo, 1984).

The Cambrian Shady Dolomite overlies the Weisner Formation northeast, east, and southwest of the Main Post and consists of interlayered bluish-gray or pale yellowish-gray sandy dolomitic limestone and siliceous dolomite with coarsely crystalline porous chert (Osborne et al., 1989). A variegated shale and clayey silt have been included within the lower part of the Shady Dolomite (Cloud, 1966). Material similar to this lower shale unit was noted in core holes drilled by the Alabama Geologic Survey on FTMC (Osborne and Szabo, 1984). The character of the Shady Dolomite in the FTMC vicinity and the true assignment of the shale at this stratigraphic interval are still uncertain (Osborne, 1999).

The Rome Formation overlies the Shady Dolomite and locally occurs to the northwest and southwest of the Main Post as mapped by Warman and Causey (1962) and Osborne and Szabo (1984). The Rome Formation consists of variegated, thinly interbedded grayish-red-purple mudstone, shale, siltstone, and greenish-red and light gray sandstone, with locally occurring limestone and dolomite. The Conasauga Formation overlies the Rome Formation and occurs along anticlinal axes in the northeastern portion of Pelham Range (Warman and Causey, 1962), (Osborne and Szabo, 1984) and the northern portion of the Main Post (Osborne et al., 1997). The Conasauga Formation is composed of dark-gray, finely to coarsely crystalline medium- to thick-bedded dolomite with minor shale and chert (Osborne et al., 1989).

Overlying the Conasauga Formation is the Knox Group, which is composed of the Copper Ridge and Chepultepec dolomites of Cambro-Ordovician age. The Knox Group is undifferentiated in Calhoun County and consists of light medium gray, fine to medium crystalline, variably bedded to laminated, siliceous dolomite and dolomitic limestone that weather to a chert residuum

(Osborne and Szabo, 1984). The Knox Group underlies a large portion of the Pelham Range area.

The Ordovician Newala and Little Oak Limestones overlie the Knox Group. The Newala Limestone consists of light to dark gray, micritic, thick-bedded limestone with minor dolomite. The Little Oak Limestone is comprised of dark gray, medium- to thick-bedded, fossiliferous, argillaceous to silty limestone with chert nodules. These limestone units are mapped together as undifferentiated at FTMC and other parts of Calhoun County. The Athens Shale overlies the Ordovician limestone units. The Athens Shale consists of dark-gray to black shale and graptolitic shale with localized interbedded dark gray limestone (Osborne et al., 1989). These units occur within an eroded "window" in the uppermost structural thrust sheet at FTMC and underlie much of the developed area of the Main Post.

Other Ordovician-aged bedrock units mapped in Calhoun County include the Greensport Formation, Colvin Mountain Sandstone, and Sequatchie Formation. These units consist of various siltstones, sandstones, shales, dolomites, and limestones, and are mapped as one, undifferentiated unit in some areas of Calhoun County. The only Silurian-age sedimentary formation mapped in Calhoun County is the Red Mountain Formation. This unit consists of interbedded red sandstone, siltstone, and shale with greenish-gray to red silty and sandy limestone.

The Devonian Frog Mountain Sandstone consists of sandstone and quartzitic sandstone with shale interbeds, dolomudstone, and glauconitic limestone (Szabo et al., 1988). This unit locally occurs in the western portion of Pelham Range.

The Mississippian Fort Payne Chert and the Maury Formation overlie the Frog Mountain Sandstone and are composed of dark- to light-gray limestone with abundant chert nodules and greenish-gray to grayish-red phosphatic shale, with increasing amounts of calcareous chert toward the upper portion of the formation (Osborne and Szabo, 1984). These units occur in the northwestern portion of Pelham Range. Overlying the Fort Payne Chert is the Floyd Shale, also of Mississippian age, which consists of thin-bedded, fissile brown to black shale with thin intercalated limestone layers and interbedded sandstone. Osborne and Szabo (1984) reassigned the Floyd Shale, which was mapped by Warman and Causey (1962) on the Main Post of FTMC, to the Ordovician Athens Shale on the basis of fossil data.

The Jacksonville Thrust Fault is the most significant structural geologic feature in the vicinity of FTMC, both for its role in determining the stratigraphic relationships in the area and for its contribution to regional water supplies. The trace of the fault extends northeastward for approximately 39 miles between Bynum, Alabama and Piedmont, Alabama. The fault is interpreted as a major splay of the Pell City Fault (Osborne and Szabo, 1984). The Ordovician sequence that makes up the Eden thrust sheet is exposed at FTMC through an eroded "window," or "fenster," in the overlying thrust sheet. Rocks within the window display complex folding with the folds being overturned and tight to isoclinal. The carbonates and shales locally exhibit well-developed cleavage (Osborne and Szabo, 1984). The FTMC window is framed on the northwest by the Rome Formation, north by the Conasauga Formation, northeast, east, and southwest by the Shady Dolomite, and southeast and southwest by the Chilhowee Group (Osborne et al., 1997).

4.1.2 Site Geology

The soil mapped at Parcel 122(7) is the Anniston and Allen gravelly clay loam. The Anniston and Allen gravelly clay loam is typically reddish brown and is derived from shale or limestone bedrock. This soil has slow infiltration and poor moisture capacity, which makes it very susceptible to erosion (U.S. Department of Agriculture, 1961).

Bedrock beneath Parcel 122(7) is mapped as the undifferentiated Ordovician Little Oak and Newala Limestones (Osborne et al., 1997). The Newala Limestone consists of light to dark gray, micritic, thick-bedded limestone with minor dolomite. The Little Oak Limestone consists of dark gray, medium- to thick-bedded, fossiliferous, argillaceous to silty limestone with chert nodules (Osborne et al., 1989).

Based on direct-push soil boring data collected during the SI, soils at the site consist of a reddish-brown, silty clay from the ground surface to approximately 3 to 4.5 feet bgs. This soil was underlain by a reddish-brown gravelly clay to the bottom of each boring at 6 to 8 feet bgs. The soil descriptions from the direct-push borings confirm that Anniston and Allen gravelly clay loam primarily underlies the site. Bedrock was not encountered during direct-push activities at Parcel 122(7). Appendix C contains the boring logs.

4.2 Site Hydrology

Precipitation in the form of rainfall averages about 54 inches annually in Anniston, Alabama, with infiltration rates annually exceeding evapotranspiration rates (National Oceanic and Atmospheric Administration, 1998). The major surface water features on the Main Post of

FTMC include Remount Creek, Cane Creek, and Cave Creek. These waterways flow in a general northwest to westerly direction towards the Coosa River on the western boundary of Calhoun County.

Parcel 122(7) slopes to the southeast toward a tributary to Remount Creek and ranges in elevation from approximately 805 to 835 feet above mean sea level. Surface runoff follows topography and flows south-southeast toward the tributary to Remount Creek located in the southern portion of the parcel (Figure 3-1).

5.0 Summary of Analytical Results

The results of TPH-DRO surface soil screening and SVOC analysis of samples collected at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), indicate that TPH-DRO were present in surface soils. However, SVOCs were not detected in subsurface soil, surface water, and sediment samples collected at the site. TPH-DRO surface soil screening results are presented in Appendix B, and all other analytical results are presented in Appendix E.

5.1 Surface Soil Screening Results

Sixty-three surface soil-screening samples were collected for TPH-DRO analysis at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7). Surface soil screening samples were collected from the upper 0.5 foot of soil at the locations shown on Figure 3-1. The screening results are presented in Table 5-1 and shown on Figure 5-1.

TPH-DRO concentrations in the surface soil screening samples ranged from less than 11 milligrams per kilogram (mg/kg) to 100 mg/kg (Table 5-1). The highest concentrations of TPH-DRO were at PPMP-122-SS11 and PPMP-122-SS38 (Figure 5-1). Based on the TPH-DRO screening results, subsurface soil sample PPMP-122-GP02 was relocated to surface soil screening location PPMP-122-SS11, and subsurface soil sample PPMP-122-GP03 was relocated to surface soil screening location PPMP-122-SS30. The results of the SVOC analysis of the subsurface soil samples collected are presented in Section 5.2

5.2 Subsurface Soil Analytical Results

Four subsurface soil samples were collected for SVOC analysis at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7). Subsurface soil samples were collected at depths greater than 1 foot bgs at the locations shown on Figure 3-1.

Semivolatile Organic Compounds. SVOCs were not detected in the subsurface soil samples collected at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7).

5.3 Surface Water Analytical Results

One surface water sample was collected at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7). The surface water sample location is shown on Figure 3-1.

Semivolatile Organic Compounds. SVOCs were not detected in the surface water sample collected at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7).

Table 5-1

TPH-DRO Surface Soil Screening Results
Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7)
Fort McClellan, Calhoun County, Alabama

Sample Location	Sample Number	Sample Date	Sample Depth (Feet bgs)	Result (mg/kg)	Data Qualifier	Reporting Limit (mg/kg)
PPMP-122-SS01	KY0007	2/2/1999	0.0-0.5	15	J, NV	12
PPMP-122-SS02	KY0008	2/2/1999	0.0-0.5	14	J, NV	12
PPMP-122-SS03	KY0009	2/2/1999	0.0-0.5	36	J, NV	12
PPMP-122-SS04	KY0010	2/2/1999	0.0-0.5	26	J, NV	12
PPMP-122-SS05	KY0011	2/2/1999	0.0-0.5	33	J, NV	12
PPMP-122-SS06	KY0012	2/2/1999	0.0-0.5	28	J, NV	13
PPMP-122-SS07	KY0013	2/2/1999	0.0-0.5	45	J, NV	12
PPMP-122-SS08	KY0014	2/2/1999	0.0-0.5	27	J, NV	13
PPMP-122-SS09	KY0015	2/2/1999	0.0-0.5	15	J, NV	12
PPMP-122-SS10	KY0016	2/2/1999	0.0-0.5	27	J, NV	12
PPMP-122-SS11	KY0017	2/2/1999	0.0-0.5	76	J, NV	12
PPMP-122-SS12	KY0018	2/3/1999	0.0-0.5	14	J, NV	12
PPMP-122-SS13	KY0019	2/3/1999	0.0-0.5	19	J, NV	12
PPMP-122-SS14	KY0020	2/3/1999	0.0-0.5	ND	J, NV	12
PPMP-122-SS15	KY0021	2/3/1999	0.0-0.5	21	J, NV	12
PPMP-122-SS16	KY0022	2/3/1999	0.0-0.5	29	J, NV	12
PPMP-122-SS17	KY0023	2/4/1999	0.0-0.5	25	J, NV	13
PPMP-122-SS18	KY0024	2/4/1999	0.0-0.5	22	J, NV	12
PPMP-122-SS19	KY0025	2/2/1999	0.0-0.5	27	J, NV	11
PPMP-122-SS20	KY0026	2/2/1999	0.0-0.5	33	J, NV	13
PPMP-122-SS21	KY0027	2/3/1999	0.0-0.5	21	J, NV	12
PPMP-122-SS22	KY0028	2/3/1999	0.0-0.5	23	J, NV	12
PPMP-122-SS23	KY0029	2/3/1999	0.0-0.5	18	J, NV	12
PPMP-122-SS24	KY0030	2/3/1999	0.0-0.5	17	J, NV	12
PPMP-122-SS25	KY0031	2/3/1999	0.0-0.5	15	J, NV	12
PPMP-122-SS26	KY0032	2/4/1999	0.0-0.5	21	J, NV	12
PPMP-122-SS27	KY0033	2/4/1999	0.0-0.5	17	J, NV	12
PPMP-122-SS28	KY0034	2/2/1999	0.0-0.5	ND	J, NV	11
PPMP-122-SS29	KY0035	2/2/1999	0.0-0.5	52	J, NV	13
PPMP-122-SS30	KY0036	2/3/1999	0.0-0.5	56	J, NV	13
PPMP-122-SS31	KY0037	2/3/1999	0.0-0.5	13	J, NV	12
PPMP-122-SS32	KY0038	2/3/1999	0.0-0.5	ND	J, NV	12
PPMP-122-SS33	KY0039	2/3/1999	0.0-0.5	ND	J, NV	12
PPMP-122-SS34	KY0040	2/3/1999	0.0-0.5	21	J, NV	12
PPMP-122-SS35	KY0041	2/4/1999	0.0-0.5	17	J, NV	12
PPMP-122-SS36	KY0042	2/4/1999	0.0-0.5	15	J, NV	12
PPMP-122-SS37	KY0043	2/2/1999	0.0-0.5	21	J, NV	12
PPMP-122-SS38	KY0044	2/2/1999	0.0-0.5	100	J, NV	14
PPMP-122-SS39	KY0045	2/3/1999	0.0-0.5	38	J, NV	13
PPMP-122-SS40	KY0046	2/3/1999	0.0-0.5	57	J, NV	13
PPMP-122-SS41	KY0047	2/3/1999	0.0-0.5	17	J, NV	12
PPMP-122-SS42	KY0048	2/3/1999	0.0-0.5	24	J, NV	13
PPMP-122-SS43	KY0049	2/3/1999	0.0-0.5	ND	J, NV	12
PPMP-122-SS44	KY0050	2/4/1999	0.0-0.5	12	J, NV	12
PPMP-122-SS45	KY0051	2/4/1999	0.0-0.5	23	J, NV	13

Table 5-1

TPH-DRO Surface Soil Screening Results
Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7)
Fort McClellan, Calhoun County, Alabama

Sample Location	Sample Number	Sample Date	Sample Depth (Feet bgs)	Result (mg/kg)	Data Qualifier	Reporting Limit (mg/kg)
PPMP-122-SS46	KY0052	2/2/1999	0.0-0.5	47	J, NV	23
PPMP-122-SS47	KY0053	2/2/1999	0.0-0.5	73	J, NV	14
PPMP-122-SS48	KY0054	2/3/1999	0.0-0.5	59	J, NV	13
PPMP-122-SS49	KY0055	2/3/1999	0.0-0.5	48	J, NV	13
PPMP-122-SS50	KY0056	2/3/1999	0.0-0.5	20	J, NV	13
PPMP-122-SS51	KY0057	2/3/1999	0.0-0.5	41	J, NV	13
PPMP-122-SS52	KY0058	2/3/1999	0.0-0.5	ND	J, NV	13
PPMP-122-SS53	KY0059	2/4/1999	0.0-0.5	ND	J, NV	13
PPMP-122-SS54	KY0060	2/4/1999	0.0-0.5	28	J, NV	13
PPMP-122-SS55	KY0061	2/2/1999	0.0-0.5	41	J, NV	11
PPMP-122-SS56	KY0062	2/3/1999	0.0-0.5	26	J, NV	13
PPMP-122-SS57	KY0063	2/3/1999	0.0-0.5	28	J, NV	13
PPMP-122-SS58	KY0064	2/3/1999	0.0-0.5	28	J, NV	14
PPMP-122-SS59	KY0065	2/3/1999	0.0-0.5	ND	J, NV	13
PPMP-122-SS60	KY0066	2/3/1999	0.0-0.5	31	J, NV	14
PPMP-122-SS61	KY0067	2/3/1999	0.0-0.5	ND	J, NV	13
PPMP-122-SS62	KY0068	2/4/1999	0.0-0.5	19	J, NV	13
PPMP-122-SS63	KY0069	2/4/1999	0.0-0.5	34	J, NV	14

Analyses performed by Quanterra Environmental Services using a screening-level version of EPA Method 8015B for TPH-DRO.

bgs - below ground surface
mg/kg - milligrams per kilogram
ND - not detected
J - estimated concentration
NV - not validated
TPH-DRO - Total petroleum hydrocarbons-diesel range organics.

E 664,500

E 664,800

N 1,166,100

N 1,165,800

825

800

IRON MOUNTAIN ROAD

SS09 (15)
SS08 (27)
SS07 (45)
SS06 (28)
SS05 (33)
SS04 (26)
SS03 (36)
SS02 (14)
SS01 (15)
SS18 (22)
SS17 (25)
SS16 (29)
SS15 (21)
SS14 (ND)
SS13 (19)
SS12 (14)
SS11 (76)
SS10 (27)
SS27 (17)
SS26 (21)
SS25 (15)
SS24 (17)
SS23 (18)
SS22 (23)
SS21 (21)
SS20 (33)
SS19 (27)
SS36 (15)
SS35 (17)
SS34 (21)
SS33 (ND)
SS32 (ND)
SS31 (13)
SS30 (56)
SS29 (52)
SS28 (ND)
SS45 (23)
SS44 (12)
SS43 (ND)
SS42 (24)
SS41 (17)
SS40 (57)
SS39 (38)
SS56 (26)
SS37 (21)
SS54 (28)
SS53 (ND)
SS52 (ND)
SS51 (41)
SS50 (20)
SS49 (48)
SS48 (59)
SS38 (100)
SS46 (47)
SS63 (34)
SS62 (19)
SS61 (ND)
SS60 (31)
SS59 (ND)
SS58 (28)
SS57 (28)
SS47 (73)
SS55 (41)

CONCRETE BLOCKS
METAL BRACKETS

JEEP ROAD (OVERGROWN)

FLOW DIRECTION

FLOW DIRECTION

FLOW DIRECTION

LEGEND

- UNIMPROVED ROADS AND PARKING
- PAVED ROADS AND PARKING
- BUILDING
- TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
- TREES / TREELINE
- PARCEL BOUNDARY
- CULVERT WITH HEADWALL
- SURFACE DRAINAGE / CREEK
- MANMADE SURFACE DRAINAGE FEATURE
- UTILITY POLE
- TPH-DRO FIELD SCREENING SURFACE SOIL SAMPLE LOCATION
- (100) SURFACE SOIL SCREENING RESULT (mg/kg)

SCALE
0 50 100 FEET

NOTE:

1. TOTAL PETROLEUM HYDROCARBONS-DIESEL RANGE ORGANIC (TPH-DRO) FIELD SCREENING SURFACE SOIL SAMPLES WITH DESIGNATION SSXX HAVE A PREFIX OF PPMP-122-.

FIGURE 5-1
SURFACE SOIL SCREENING RESULTS FOR TPH-DRO FORMER FOG OIL STORAGE AREA WEST OF SKEET RANGE PARCEL 122(7)

U. S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
FORT McCLELLAN
CALHOUN COUNTY, ALABAMA
Contract No. DACA21-96-D-0018

IT CORPORATION
A Member of The IT Group

DWG. NO.: ...\774645es.627
PROJ. NO.: 774645
INITIATOR: J. REMO
PROJ. MGR.: J. YACOUB
DRAFT. CHCK. BY:
ENGR. CHCK. BY: S. MORAN
DATE LAST REV.:
DRAWN BY:
STARTING DATE: 09/28/00
DRAWN BY: D. BILLINGSLEY
10/12/00
04:31:54
awsmith
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5.4 Sediment Analytical Results

One sediment sample was collected at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7). The sample was collected from the upper 0.5 foot of sediment at the sample location shown on Figure 3-1.

Semivolatile Organic Compounds. SVOCs were not detected in the sediment sample collected at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7).

Total Organic Carbon. The total organic carbon concentration in the sediment sample was 11,800 mg/kg, as summarized in Appendix E.

Grain Size. The results of grain size analysis for the sediment sample are included in Appendix E.

6.0 Summary and Conclusions and Recommendations

IT, under contract to USACE, completed an SI at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), at FTMC in Calhoun County, Alabama. The SI was conducted to determine whether chemical constituents are present at site, and, if present, whether the concentrations present an unacceptable risk to human health or the environment. The SI at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), consisted of the sampling and analysis of 63 surface soil screening samples, 4 subsurface soil samples, 1 surface water sample, and 1 sediment sample. Four direct-push soil borings installed at the site provided site-specific geological characterization information.

The surface soils screening for hydrocarbons at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), indicated that TPH-DRO were present in surface soils. TPH-DRO concentrations ranged from less than 11 mg/kg to 100 mg/kg. However, the TPH-DRO data were collected for screening purposes only; therefore, instrument calibration requirements for the method were waived. Consequently, the quantitative results of this screening level TPH-DRO analysis should be considered estimated.

Chemical analysis of the four subsurface soil samples (including two subsurface soil samples that were relocated to locations with elevated surface soil screening results), one surface water sample, and one sediment sample was limited to SVOCs only. SVOCs were not detected in any of the subsurface soil, surface water, or sediment samples collected at the site. In the future land-use scenario, portions of Parcel 122(7) will be reused for retail, passive recreation, and for the Eastern Bypass (FTMC, 1997). Under these land-use scenarios, the concentrations of TPH-DRO in surface soils are not expected to pose a significant threat to human health or ecological receptors.

Based on the results of the SI, past operations at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), do not appear to have adversely impacted the environment. The low levels of TPH-DRO detected in surface soils at the site do not pose an unacceptable risk to human health and the environment. Therefore, IT recommends “No Further Action” and unrestricted land reuse with regard to hazardous, toxic, and radioactive waste at the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7).

7.0 References

Brubaker, K. L., D. H. Rosenblatt, and C. I. Snyder, 1992, ***Environmental Effects of Fog Oil and CS Usage at the Combat Maneuver Training Center, Hohenfels, Germany***, March.

Cloud, P. E., Jr., 1966, ***Bauxite Deposits in the Anniston, Fort Payne and Ashville Areas, Northeast Alabama***, U. S. Geological Survey Bulletin 1199-O, 35 p.

Environmental Science and Engineering, Inc. (ESE), 1998, ***Final Environmental Baseline Survey, Fort McClellan, Alabama***, prepared for U.S. Army Environmental Center, Aberdeen Proving Ground, Maryland, January.

Fort McClellan (FTMC), 1997, ***Fort McClellan Comprehensive Reuse Plan,*** Fort McClellan Reuse and Redevelopment Authority of Alabama, prepared under contract to the Calhoun County Commission, November.

IT Corporation (IT), 2000a, ***Final Installation-Wide Sampling and Analysis Plan, Fort McClellan, Calhoun County, Alabama***, March.

IT Corporation (IT), 2000b, ***Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama***, July.

IT Corporation (IT), 1998a, ***Final Site-Specific Field Sampling Plan Attachment for Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7), Fort McClellan, Calhoun County, Alabama***, December.

IT Corporation (IT), 1998b, ***Final Installation-Wide Work Plan, Fort McClellan, Calhoun County, Alabama***, August.

Moser, P. H. and S.S. DeJarnette, 1992, ***Groundwater Availability in Calhoun County, Alabama***, Geological Survey of Alabama Special Map 228.

Osborne, W. E., 1999, Personal Communication with John Hofer, IT Corporation.

Osborne, W. E., and Szabo, M. W., 1984, ***Stratigraphy and Structure of the Jacksonville Fault, Calhoun County, Alabama***, Alabama Geological Survey Circular 117.

Osborne, W. E., Irving, G. D., and Ward, W. E., 1997, ***Geologic Map of the Anniston 7.5' Quadrangle, Calhoun County, Alabama***, Alabama Geologic Survey Preliminary Map, 1 sheet.

Osborne, W. E., Szabo, M. W., Copeland, C. W. Jr., and Neathery, T. L., 1989, ***Geologic Map of Alabama***, Alabama Geologic Survey Special Map 221, scale 1:500,000, 1 sheet.

Szabo, M. W., Osborne, W. E., Copeland, C. W., Jr., and Neathery, T. L., compilers, 1988, ***Geologic Map of Alabama***, Alabama Geological Survey Special Map 220, scale 1:250,000, 5 sheets.

3D International Environmental Group (3D), 1996, ***Ecological Risk Assessment: Effect of Fog Oil Obscurant on Selected Amphibians, Reptiles, and Birds at Fort Leonard Wood, Missouri***, July.

U.S. Army Corps of Engineers (USACE), 1998, ***Archives Search Report, Maps, Fort McClellan, Anniston, Alabama***, June.

U.S. Army Corps of Engineers (USACE), 1994, ***Requirements for the Preparation of Sampling and Analysis Plans***, Engineer Manual EM 200-1-3, September 1.

U.S. Department of Agriculture, 1961, ***Soil Survey, Calhoun County, Alabama***, Soil Conservation Service, Series 1958, No. 9, September.

U.S. Department of Commerce, National Oceanic and Atmospheric Administration, 1998, Unedited Local Climatological Data, Anniston, Alabama, January-December 1998.

U.S. Environmental Protection Agency (EPA), 1990, ***Installation Assessment, Army Closure Program, Fort McClellan, Anniston, Alabama***, (TS-PIC-89334), Environmental Photographic Interpretation Center (EPIC), Environmental Monitoring Systems Laboratory.

Warman, J. C, and Causey, L. V., 1962, ***Geology and Groundwater Resources of Calhoun County, Alabama***, Alabama Geological Survey County Report 7, 77 p.

ATTACHMENT 1

LIST OF ABBREVIATIONS AND ACRONYMS

List of Abbreviations and Acronyms

2,4-D	2,4-dichlorophenoxyacetic acid
2,4,5-T	2,4,5-trichlorophenoxyacetic acid
2,4,5-TP	silvex
3D	3D International Environmental Group
AAs	atomic absorption
AC	hydrogen cyanide
AcB2	Anniston and Allen gravelly loams, 2 to 6 percent slopes, eroded
AcC2	Anniston and Allen gravelly loams, 6 to 10 percent slopes, eroded
AcD2	Anniston and Allen gravelly loams, 10 to 15 percent slopes, eroded
AcE2	Anniston and Allen gravelly loams, 15 to 25 percent slopes, eroded
ACGIH	American Conference of Governmental Industrial Hygienists
ADEM	Alabama Department of Environmental Management
AEL	airborne exposure limit
AHA	ammunition holding area
AL	Alabama
amb.	amber
ANAD	Anniston Army Depot
APT	armor-piercing tracer
ASP	ammunition supply point
ASR	Archives Search Report
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
"B"	Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero)
BCT	BRAC Cleanup Team
BEHP	bis(2-ethylhexyl)phthalate
BFB	bromofluorobenzene
BG	Bacillus globigii
bgs	below ground surface
BHC	betahexachlorocyclohexane
Bkg	background
bls	below land surface
BOD	biological oxygen demand
BRAC	Base Realignment and Closure
Braun	Braun Intertec Corporation
BTEX	benzene, toluene, ethyl benzene, and xylenes
BTOC	below top of casing
BW	biological warfare
BZ	breathing zone; 3-quinuclidinyl benzilate
C	ceiling limit value
Ca	carcinogen
CCAL	continuing calibration
CCB	continuing calibration blank
CD	compact disc
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CESAS	Corps of Engineers South Atlantic Savannah
CG	carbonyl chloride (phosgene)
CFC	chlorofluorocarbon
ch	inorganic clays of high plasticity
CHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
CK	cyanogen chloride
cl	inorganic clays of low to medium plasticity
Cl	chlorinated
CLP	Contract Laboratory Program
CN	chloroacetophenone
CNB	chloroacetophenone, benzene, and carbon tetrachloride
CNS	chloroacetophenone, chloropicrin, and chloroform
Co-60	cobalt-60
COC	chain of custody
COE	Corps of Engineers
Con	skin or eye contact
CRL	certified reporting limit
CRZ	contamination reduction zone
Cs-137	cesium-137
CS	ortho-chlorobenzylidene-malononitrile
CSEM	conceptual site exposure model
ctr.	container
CWA	chemical warfare agent
CWM	chemical warfare material; clear, wide mouth
CX	dichloroformoxime
D	duplicate; dilution
DANC	decontaminating agent, non-corrosive
°C	degrees Celsius
°F	degrees Fahrenheit
DCE	dichloroethene
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethene
DDT	dichlorodiphenyltrichloroethane
DEH	Directorate of Engineering and Housing
DEP	depositional soil
DI	deionized
DIMP	di-isopropylmethylphosphonate
DMMP	dimethylmethylphosphonate
DOD	U.S. Department of Defense
DP	direct-push
DPDO	Defense Property Disposal Office
DPT	direct-push technology
DQO	data quality objective
DRMO	Defense Reutilization and Marketing Office
DRO	diesel range organics
DS	deep (subsurface) soil
DS2	Decontamination Solution Number 2
E&E	Ecology and Environment, Inc.
EBS	environmental baseline survey
Elev.	elevation
EM	electromagnetic
EM31	Geonics Limited EM31 Terrain Conductivity Meter
EM61	Geonics Limited EM61 High-Resolution Metal Detector
EOD	explosive ordnance disposal
EODT	explosive ordnance disposal team
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
EPIC	Environmental Photographic Interpretation Center
ER	equipment rinsate
ESE	Environmental Science and Engineering, Inc.
ESV	ecological screening value
Exp.	explosives
E/W	east to west
EZ	exclusion zone
FB	field blank
FD	field duplicate
FedEx	Federal Express, Inc.
FFE	field flame expedient
Fil	filtered
Flt	filtered
FMP 1300	Former Motor Pool 1300
Foster Wheeler	Foster Wheeler Environmental Corporation
Frag.	fragment
FS	field split
ft	feet
ft/ft	feet per feet
FTA	Fire Training Area
FTMC	Fort McClellan
g	gram
G-856	Geometrics, Inc. G-856 magnetometer
G-858G	Geometrics, Inc. G-858G magnetic gradiometer
gal	gallon
gal/min	gallons per minute
GB	sarin
gc	clay gravels; gravel-sand-clay mixtures
GC	gas chromatograph
GC/MS	gas chromatograph/mass spectrometer
GFAA	graphite furnace atomic absorption
gm	silty gravels; gravel-sand-silt mixtures
gp	poorly graded gravels; gravel-sand mixtures
gpm	gallons per minute
GPR	ground-penetrating radar
GPS	global positioning system
GS	ground scar
GSA	General Services Administration
GSBP	Ground Scar Boiler Plant
GSSI	Geophysical Survey Systems, Inc.
GST	ground stain

List of Abbreviations and Acronyms (Continued)

GW	groundwater
gw	well-graded gravels; gravel-sand mixtures
HA	hand auger
HCl	hydrochloric acid
HD	distilled mustard
HDPE	high-density polyethylene
Herb.	herbicides
HNO_3	nitric acid
hr	hour
H&S	health and safety
HSA	hollow-stem auger
HTRW	hazardous, toxic, and radioactive waste
'I'	out of control, data rejected due to low recovery
ICAL	initial calibration
ICB	initial calibration blank
ICP	inductively-coupled plasma
ICS	interference check sample
ID	inside diameter
IDL	instrument detection limit
IDLH	immediately dangerous to life or health
IDW	investigation-derived waste
IMPA	isopropylmethyl phosphonic acid
in.	inch
Ing	ingestion
Inh	inhalation
IP	ionization potential
IPS	International Pipe Standard
IRDMIS	Installation Restoration Data Management Information System
ISCP	Installation Spill Contingency Plan
IT	IT Corporation
ITEMS	IT Environmental Management System ™
'J'	estimated concentration
JeB2	Jefferson gravelly fine sandy loam, 2 to 6 percent slopes, eroded
JeC2	Jefferson gravelly fine sandy loam, 6 to 10 percent slopes, eroded
JfB	Jefferson stony fine sandy loam, 0 to 10 percent slopes have strong slopes
K	conductivity
L	lewisite; liter
LC_{50}	lethal concentration for 50 percent of population tested
LD_{50}	lethal dose for 50 percent of population tested
l	liter
LCS	laboratory control sample
LEL	lower explosive limit
LT	less than the certified reporting limit
max	maximum
MDL	method detection limit
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mg/m^3	milligrams per cubic meter
mh	inorganic silts, micaceous or diatomaceous fine, sandy or silt soils
MHz	megahertz
µg/g	micrograms per gram
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µmhos/cm	micromhos per centimeter
min	minimum
MINICAMS	miniature continuous air sampling system
ml	inorganic silts and very fine sands
mL	milliliter
mm	millimeter
MM	mounded material
MOGAS	motor vehicle gasoline
MPA	methyl phosphonic acid
MR	molasses residue
MS	matrix spike
mS/cm	millisiemens per centimeter
MSD	matrix spike duplicate
msl	mean sea level
MtD3	Montevallo shaly, silty clay loam, 10 to 40 percent slopes , severely eroded
mV	millivolts
MW	monitoring well
N/A	not applicable; not available
NAD	North American Datum
NAD83	North American Datum of 1983
NAVD88	North American Vertical Datum of 1988
ND	not detected
NE	no evidence; northeast
NFA	No Further Action
ng/L	nanograms per liter
NGVD	National Geodetic Vertical Datum
NIC	notice of intended change
NIOSH	National Institute for Occupational Safety and Health
No.	number
NOAA	National Oceanic and Atmospheric Administration
NR	not requested
ns	nanosecond
N-S	north to south
nT	nanotesla
NTU	nephelometric turbidity unit
O&G	oil and grease
OD	outside diameter
OE	ordnance and explosives
oh	organic clays of medium to high plasticity
ol	organic silts and organic silty clays of low plasticity
OP	organophosphorus
ORP	oxidation-reduction potential
OSHA	Occupational Safety and Health Administration
OWS	oil/water separator
oz	ounce
PAH	polynuclear aromatic hydrocarbon
Parsons	Parsons Engineering Science, Inc.
Pb	lead
PCB	polychlorinated biphenyl
PCE	perchloroethene
PCP	pentachlorophenol
PDS	Personnel Decontamination Station
PEL	permissible exposure limit
Pest.	pesticide
PG	professional geologist
PID	photoionization detector
PkA	Philo and Stendal soils local alluvium, 0 to 2 percent slopes
POL	petroleum, oils, and lubricants
PP	peristaltic pump
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
PPMP	Print Plant Motor Pool
ppt	parts per thousand
PSSC	potential site-specific chemical
pt	peat or other highly organic silts
PVC	polyvinyl chloride
QA	quality assurance
QA/QC	quality assurance/quality control
QAP	installation-wide quality assurance plan
QC	quality control
QST	QST Environmental Inc.
qty	quantity
Qual	qualifier
'R'	rejected; resample
RCRA	Resource Conservation and Recovery Act
RDX	cyclonite
ReB3	Rarden silty clay loams
REG	field sample
REL	recommended exposure limit
RFA	request for analysis
RI	remedial investigation
RL	reporting limit
RPD	relative percent difference
RRF	relative response factor
RSD	relative standard deviation
RTK	real-time kinematic
SAD	South Atlantic Division
SAE	Society of Automotive Engineers
SAIC	Science Applications International Corporation
SAP	installation-wide sampling and analysis plan

List of Abbreviations and Acronyms (Continued)

sc	clayey sands; sand-clay mixtures
Sch.	schedule
SD	sediment
SDG	sample delivery group
SDZ	safe distance zone; surface danger zone
SEMS	Southern Environmental Management & Specialties, Inc.
SFSP	site-specific field sampling plan
SGF	standard grade fuels
SHP	installation-wide safety and health plan
SI	site investigation
SL	standing liquid
sm	silty sands; sand-silt mixtures
SM	Serratia marcescens
SOP	standard operating procedure
sp	poorly graded sands; gravelly sands
SP	sump pump
Sr-90	strontium-90
Ss	stony rough land, sandstone series
SS	surface soil
SSC	site-specific chemical
SSHO	site safety and health officer
SSHP	site-specific safety and health plan
SSSL	site-specific screening level
STB	supertropical bleach
STEL	short-term exposure limit
STOLS	Surface Towed Ordnance Locator System®
Std. units	standard units
SU	standard unit
SVOC	semivolatile organic compound
SW	surface water
SW-846	U.S. EPA *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*
SZ	support zone
TAL	target analyte list
TAT	turn around time
TB	trip blank
TCA	trichloroethane
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TCDF	tetrachlorodibenzofurans
TCE	trichloroethene
TCL	target compound list
TCLP	toxicity characteristic leaching procedure
TDGCL	thiodiglycol
TDGCLA	thiodiglycol chloroacetic acid
TERC	Total Environmental Restoration Contract
TIC	tentatively identified compound
TLV	threshold limit value
TN	Tennessee
TOC	top of casing; total organic carbon
TPH	total petroleum hydrocarbons
TRADOC	U.S. Army Training and Doctrine Command
TRPH	total recoverable petroleum hydrocarbons
TWA	time weighted average
UCL	upper confidence limit
UCR	upper certified range
'U'	not detected above reporting limit
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USAEC	U.S. Army Environmental Center
USAEHA	U.S. Army Environmental Hygiene Agency
USACMLS	U.S. Army Chemical School
USAMPS	U.S. Army Military Police School
USATEU	U.S. Army Technical Escort Unit
USATHAMA	U.S. Army Toxic and Hazardous Material Agency
USCS	Unified Soil Classification System
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
UXO	unexploded ordnance
VOA	volatile organic analyte
VOC	volatile organic compound
VOH	volatile organic hydrocarbon
VQlfr	validation qualifier
VQual	validation qualifier
VX	nerve agent (O-ethyl-S-[diisopropylaminoethyl]-methylphosphonothiolate)
Weston	Roy F. Weston, Inc.
WP	installation-wide work plan
WS	watershed
WSA	Watershed Screening Assessment
WWI	World War I
WWII	World War II
XRF	x-ray fluorescence
yd^3	cubic yards

SAIC – Data Qualifiers, Codes and Footnotes, 1995 Remedial Investigation

N/A – Not analyzed

ND – Not detected

Boolean Codes

LT – Less than the certified reporting limit

Flagging Codes

9 – Non-demonstrated/validated method performed for USAEC

B – Analyte found in the method blank or QC blank

C – Analysis was confirmed

D – Duplicate analysis

I – Interfaces in sample make quantitation and/or identification to be suspicious

J – Value is estimated

K – Reported results are affected by interfaces or high background

N – Tentatively identified compound (match greater than 70%)

Q – Sample interference obscured peak of interest

R – Non-target compound analyzed for but not detected (GC/MS methods)

S – Non-target compound analyzed for and detected (GC/MS methods)

T – Non-target compound analyzed for but not detected (non GC/MS methods)

U – Analysis in unconfirmed

Z – Non-target compound analyzed for and detected (non-GC/MS methods)

Qualifiers

J – The low-spike recovery is low

N – The high-spike recovery is low

R – Data is rejected

APPENDIX A

SAMPLE COLLECTION LOGS AND ANALYSIS REQUEST/CHAIN-OF-CUSTODY RECORDS

SAMPLE COLLECTION LOGS

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS01**

Sample Number: **KY0007**

Sample Name: **PPMP-122-SS01-SS-KY0007-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 10:26

Start Depth: 0'

End Depth: 6"

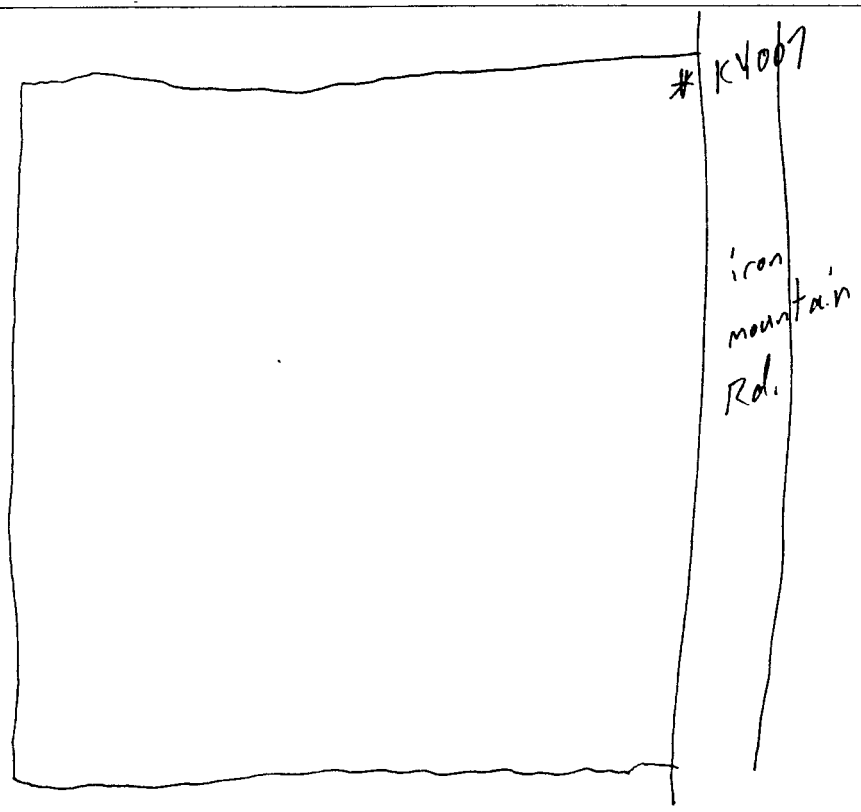
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: _____ *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS02**
Sample Number: **KY0008**
Sample Name: **PPMP-122-SS02-SS-KY0008-REG**
Sampling Method: **DP**

Collection Date: 2/2/99
Collection Time: 10:33

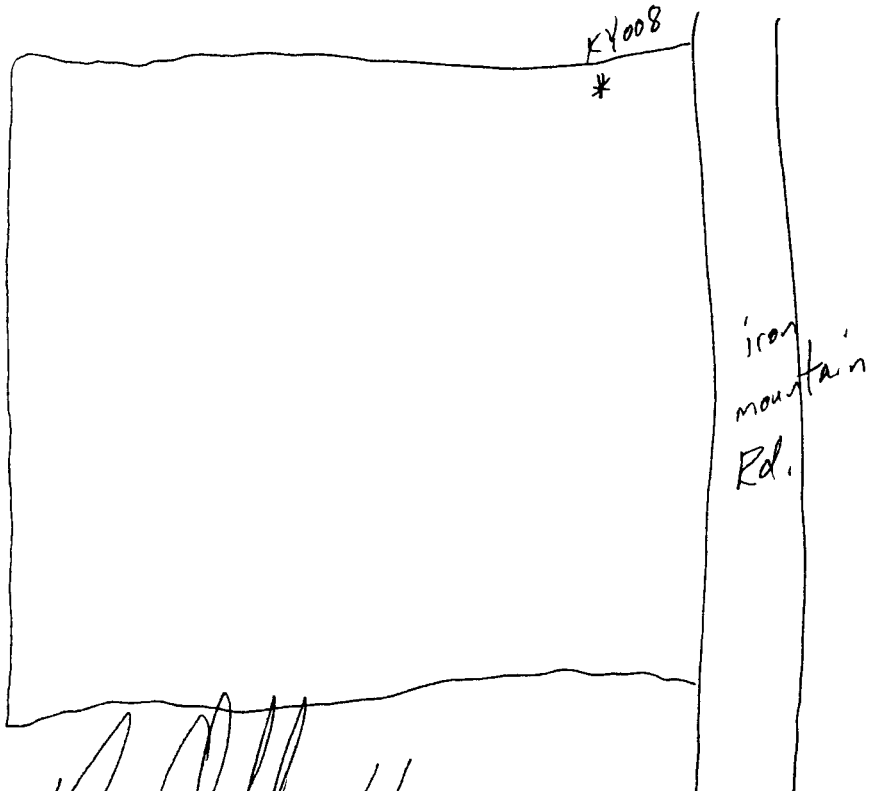
Start Depth: 0'
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathis

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS03**

Sample Number: **KY0009**

Sample Name: **PPMP-122-SS03-SS-KY0009-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 10:42

Start Depth: 0'

End Depth: 6"

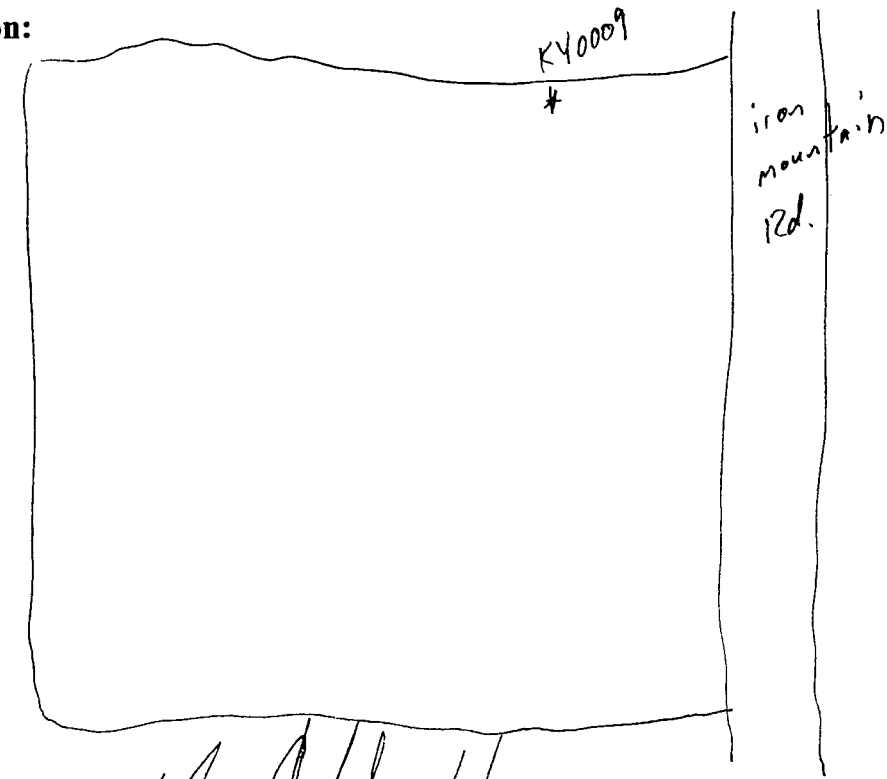
Sample Team: Kevin Arnold
Tim Mathis

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS04**

Sample Number: **KY0010**

Sample Name: **PPMP-122-SS04-SS-KY0010-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 10:47

Start Depth: 0'

End Depth: 6"

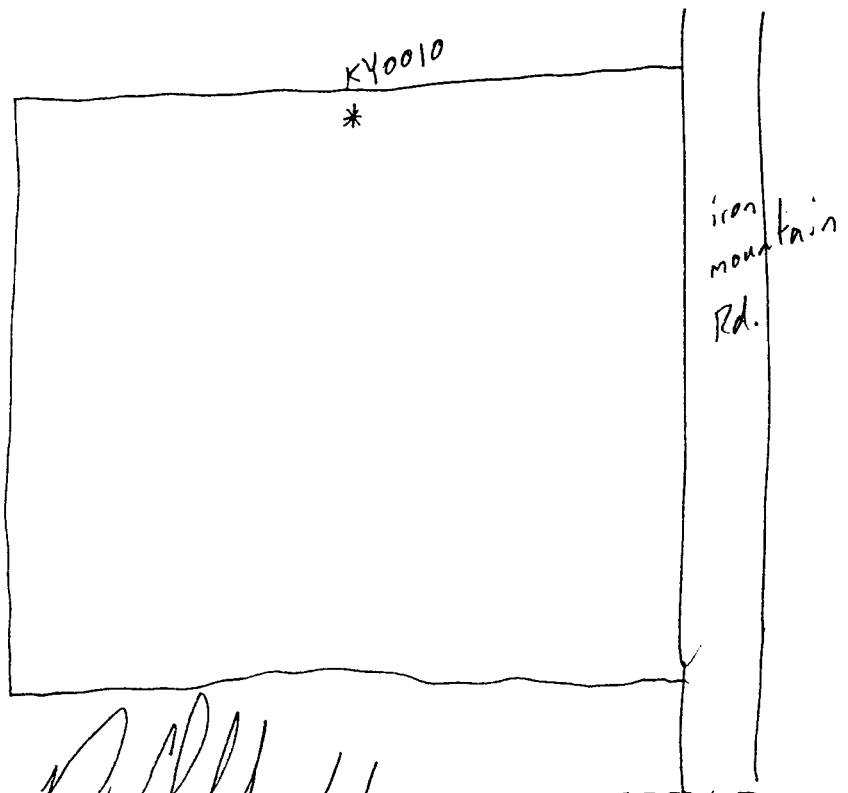
Sample Team: Kevin Arnold
Tim Mathis

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS05**

Sample Number: **KY0011**

Sample Name: **PPMP-122-SS05-SS-KY0011-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 10:52

Start Depth: 0'

End Depth: 6"

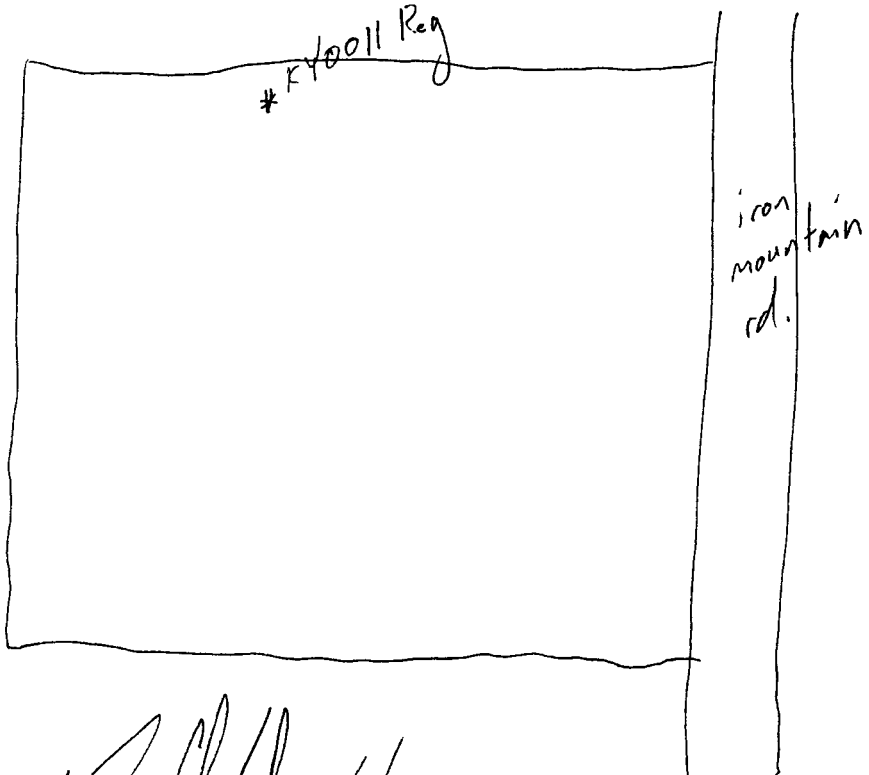
Sample Team: Kevin Arnold
Tim Mathis

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: 2/2/99

Reviewed BY / Date: _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS06**

Sample Number: **KY0012**

Sample Name: **PPMP-122-SS06-SS-KY0012-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 10:57

Start Depth: 0'

End Depth: 6"

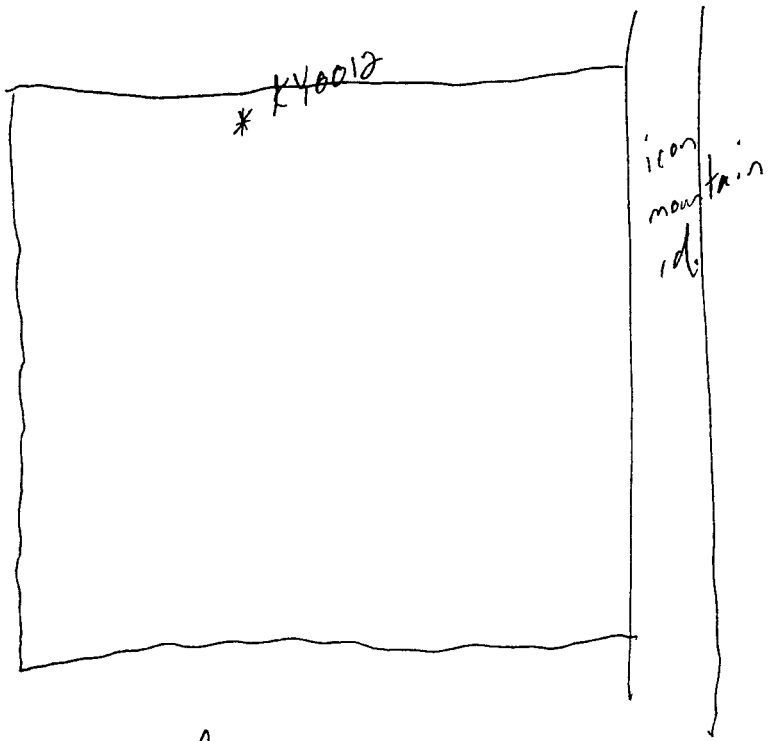
Sample Team: Kevin Arnold
Tim Mathis

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS07**
Sample Number: **KY0013**
Sample Name: **PPMP-122-SS07-SS-KY0013-REG**
Sampling Method: **DP**

Collection Date: 2/2/99
Collection Time: 11:05

Start Depth: 0'
End Depth: 6"

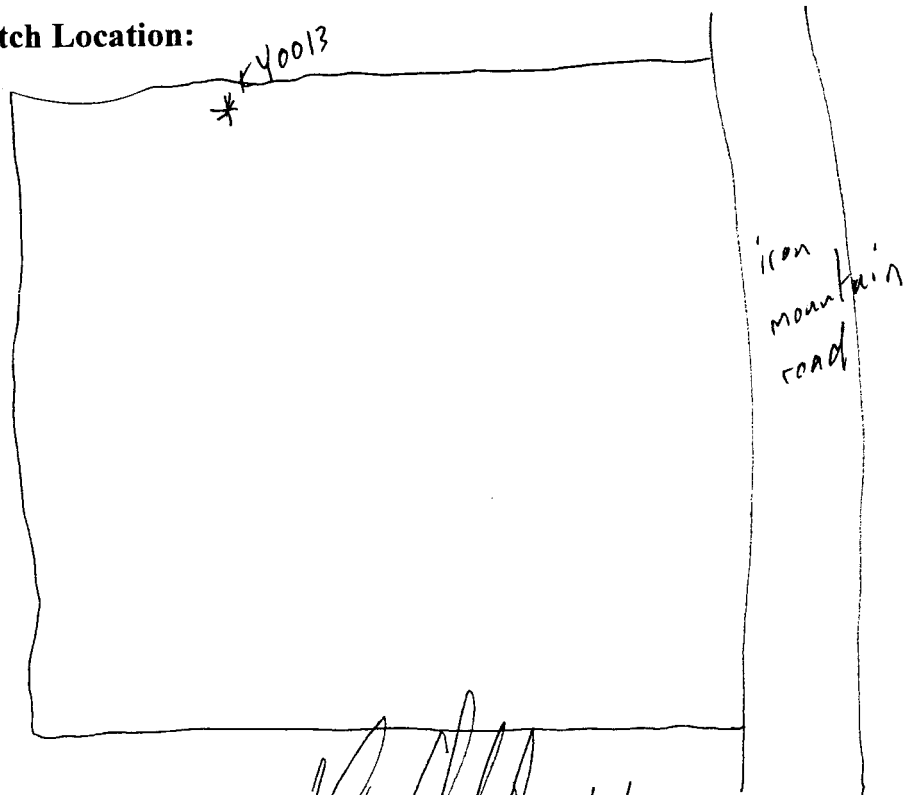
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: Kevin Arnold
Tim Mathis

Comments:

Sketch Location:



Logged BY / Date: 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS08**

Sample Number: **KY0014**

Sample Name: **PPMP-122-SS08-SS-KY0014-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 11:13

Start Depth: 0'

End Depth: 6"

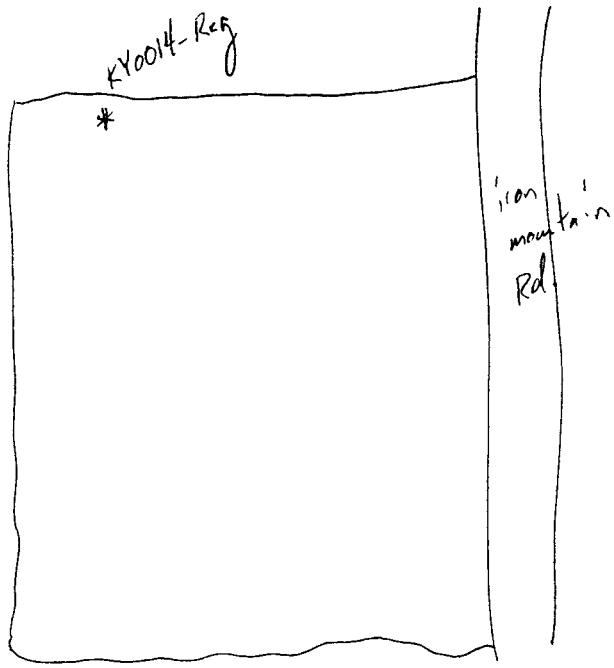
Sample Team: Kevin Arnold
Tim Mathis

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS09**

Sample Number: **KY0015**

Sample Name: **PPMP-122-SS09-SS-KY0015-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 11:20

Start Depth: 0'

End Depth: 6"

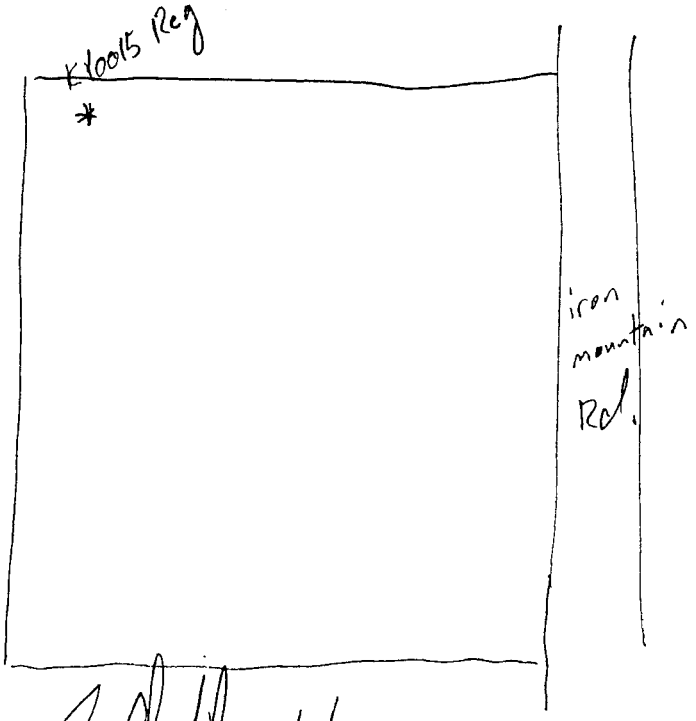
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS10**
Sample Number: **KY0016**
Sample Name: **PPMP-122-SS10-SS-KY0016-REG**
Sampling Method: **DP**

Collection Date: 2/2/99
Collection Time: 13:53

Start Depth: 0'
End Depth: 6"

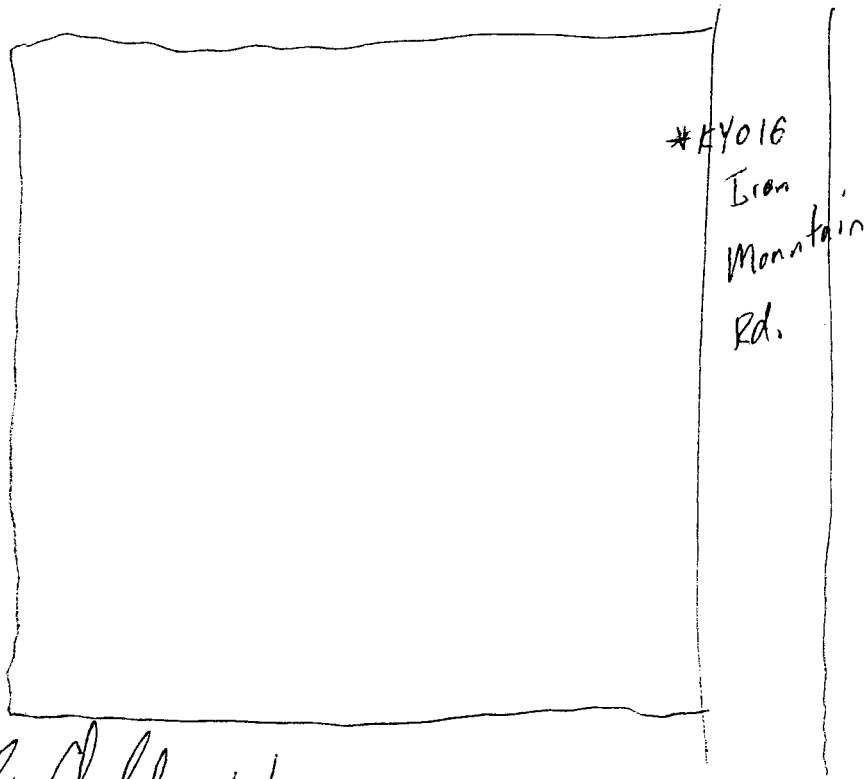
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS11**
Sample Number: **KY0017**
Sample Name: **PPMP-122-SS11-SS-KY0017-REG**
Sampling Method: **DP**

Collection Date: 2-2-99
Collection Time: 1520

Start Depth: 0"
End Depth: 6"

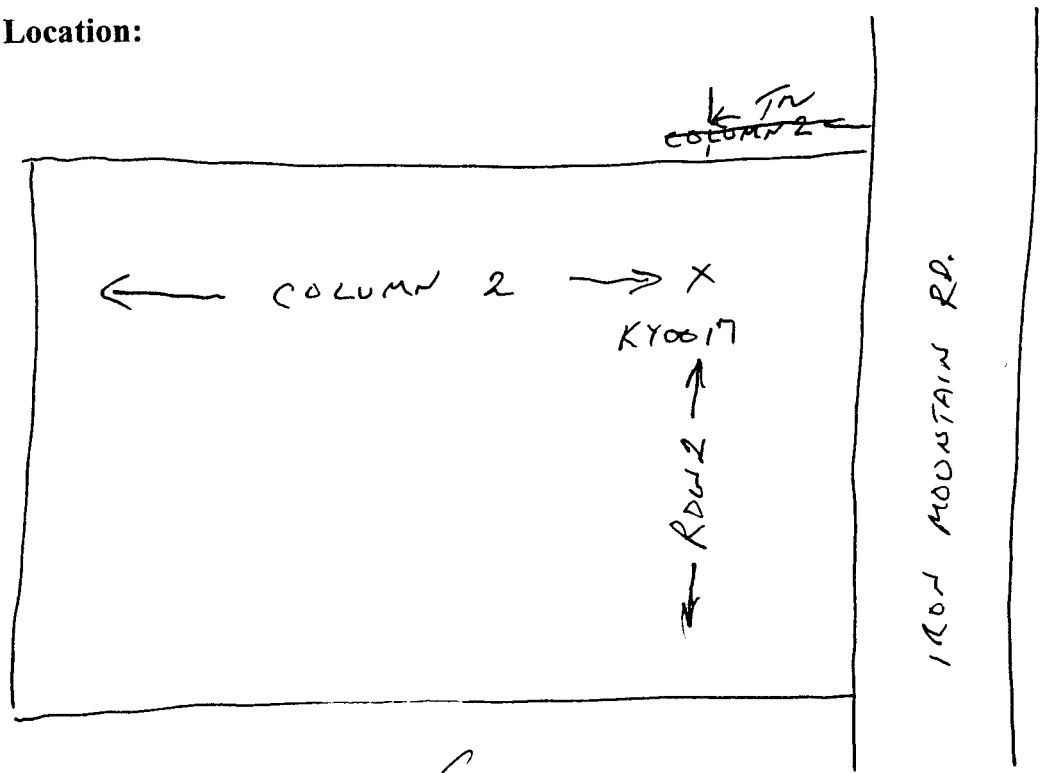
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: TIM MATHES
KEVIN ARNOLD

Comments: _____

Sketch Location:



Logged BY / Date: 2-2-99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS12**

Sample Number: **KY0018**

Sample Name: **PPMP-122-SS12-SS-KY0018-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: ~~KY00~~ 0850

Start Depth: 0'

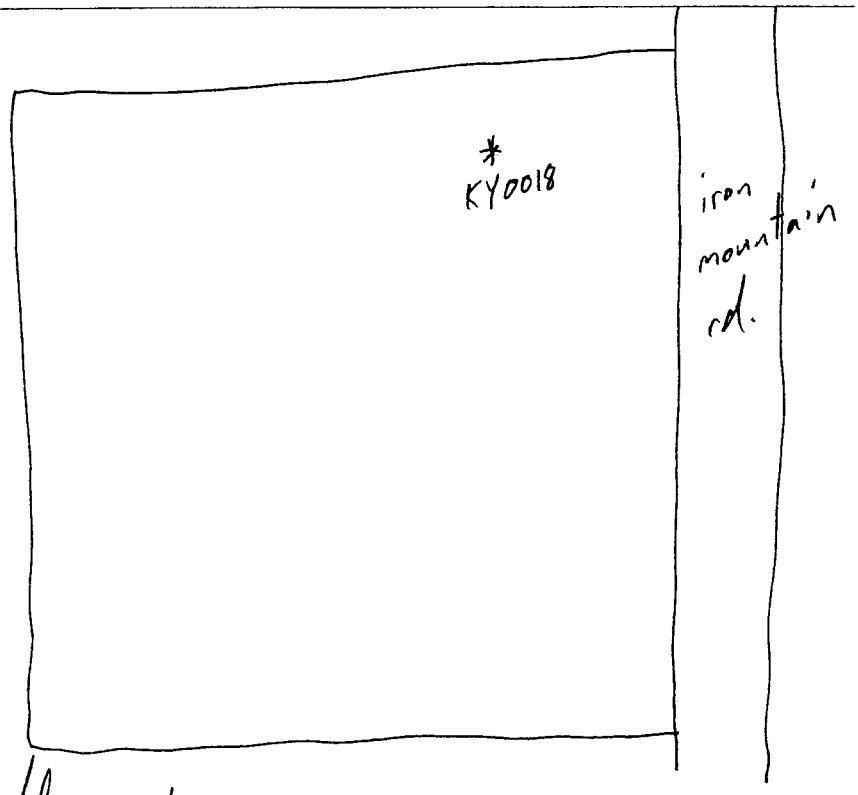
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/3/99

Reviewed BY / Date: _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS13**

Sample Number: **KY0019**

Sample Name: **PPMP-122-SS13-SS-KY0019-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 10:26

Start Depth: 0'

End Depth: 6"

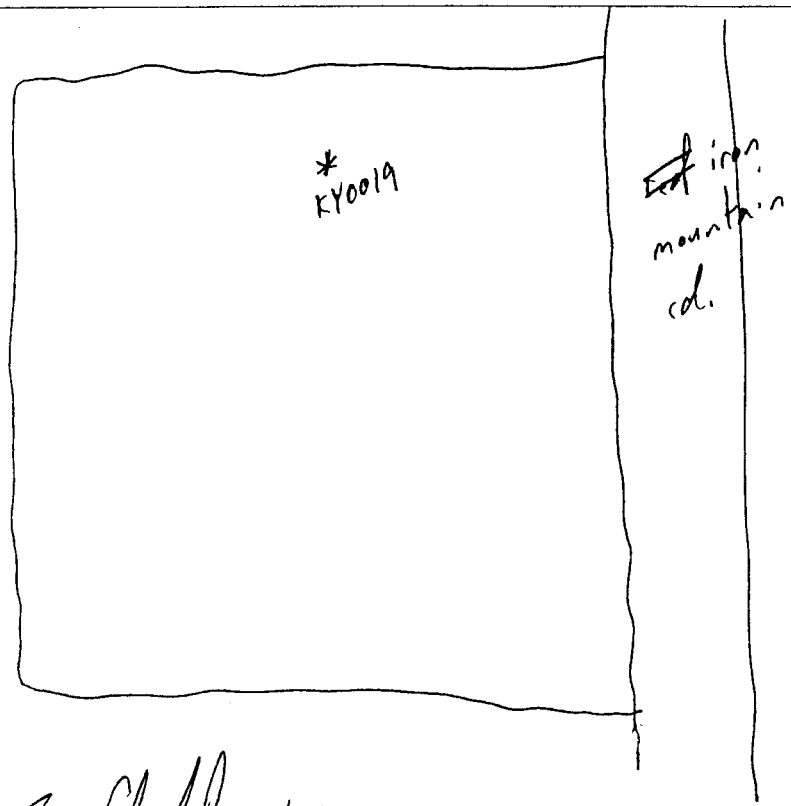
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS14**
Sample Number: **KY0020**
Sample Name: **PPMP-122-SS14-SS-KY0020-REG**
Sampling Method: **DP**

Collection Date: 2/3/99
Collection Time: 13:42

Start Depth: 0'
End Depth: 6"

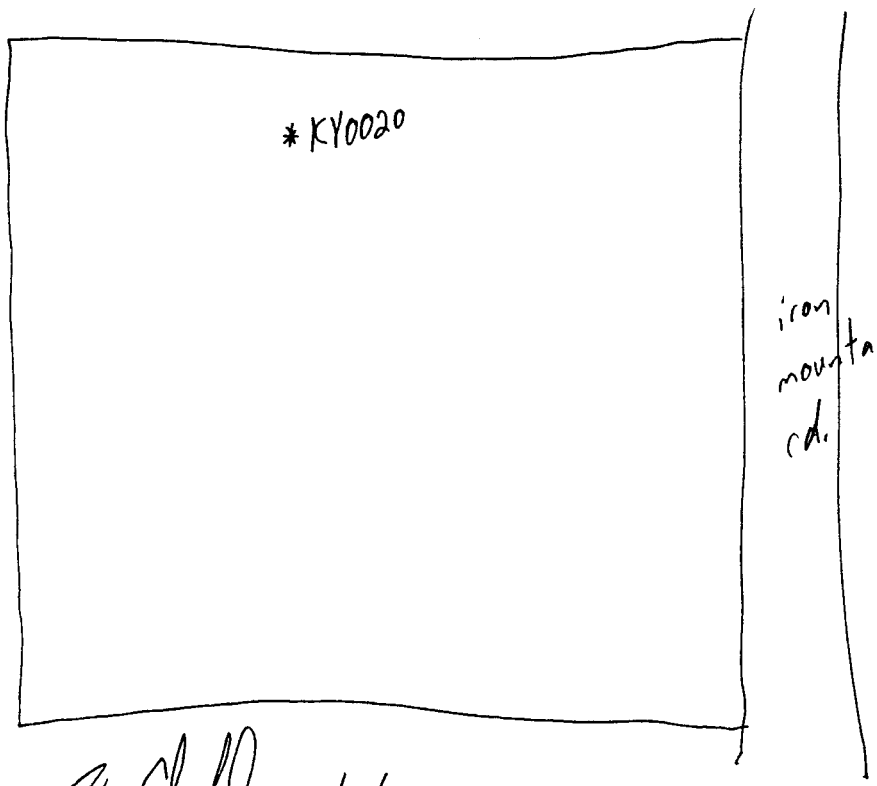
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS15**

Sample Number: **KY0021**

Sample Name: **PPMP-122-SS15-SS-KY0021-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 1439

Start Depth: 0'

End Depth: 6"

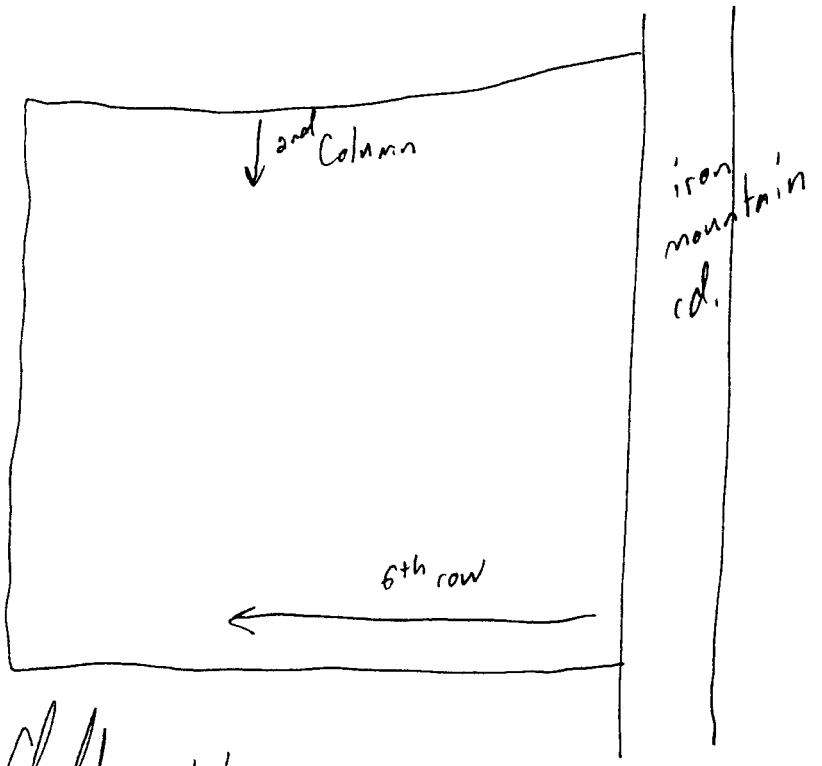
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS16**

Sample Number: **KY0022**

Sample Name: **PPMP-122-SS16-SS-KY0022-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 16:35

Start Depth: 0'

End Depth: 6"

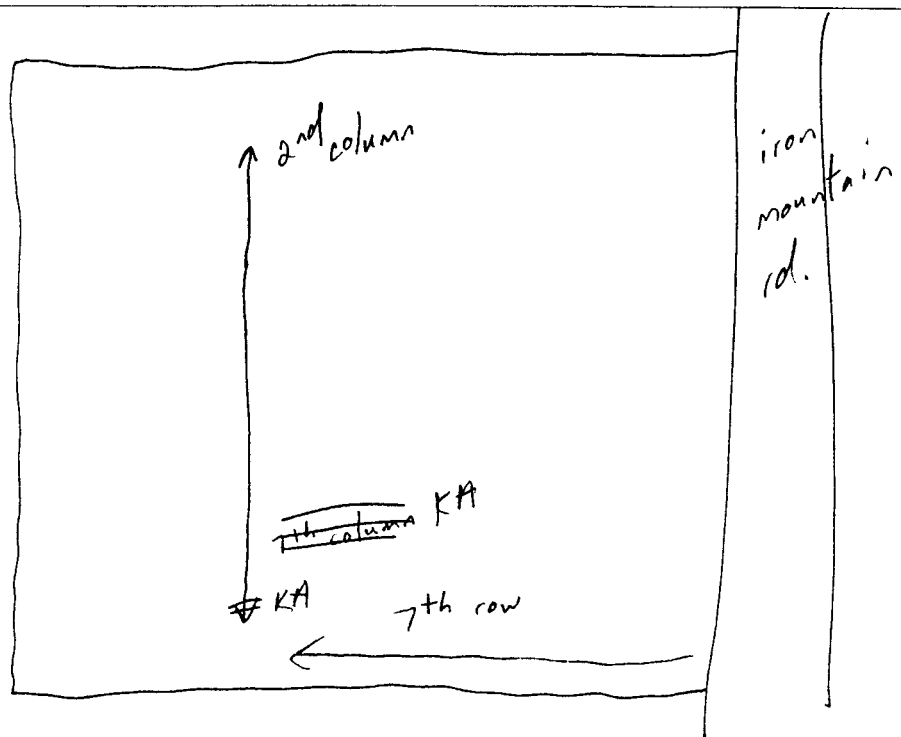
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: Kevin Arnold
Tim Mathes

Comments:

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-020499-QST

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS17**
Sample Number: **KY0023**
Sample Name: **PPMP-122-SS17-SS-KY0023-REG**
Sampling Method: **DP**

Collection Date: 2/4/99
Collection Time: 0914

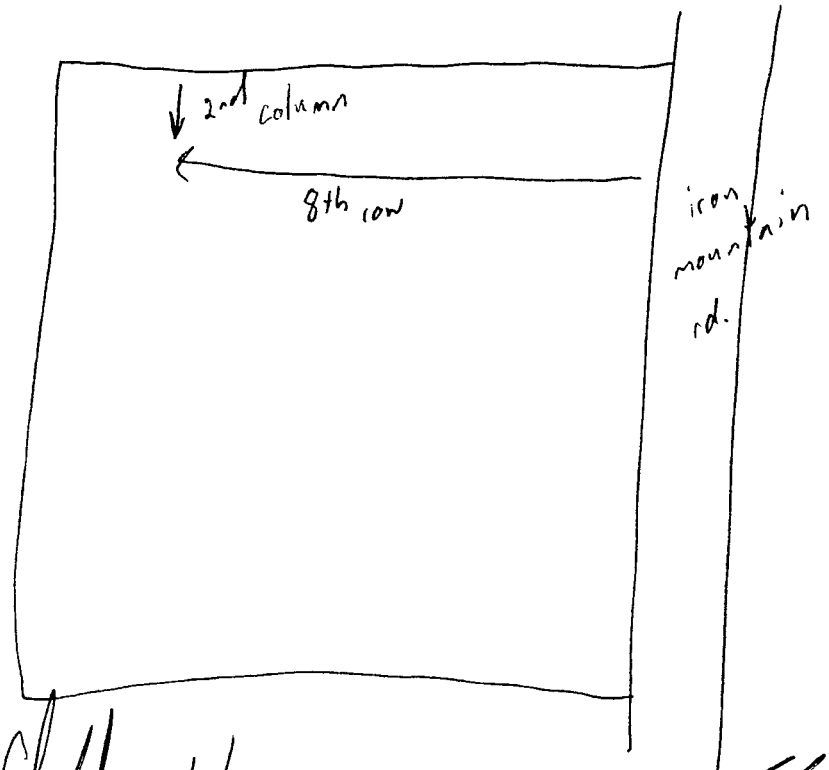
Start Depth: 0'
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/4/99 *Reviewed BY / Date:*

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-020499-QST

Site: Former Fog Oil Storage Area West of the Ske
Location Code: PPMP-122-SS18
Sample Number: KY0024
Sample Name: PPMP-122-SS18-SS-KY0024-REG
Sampling Method: DP

Collection Date: 2/4/99
Collection Time: 0952

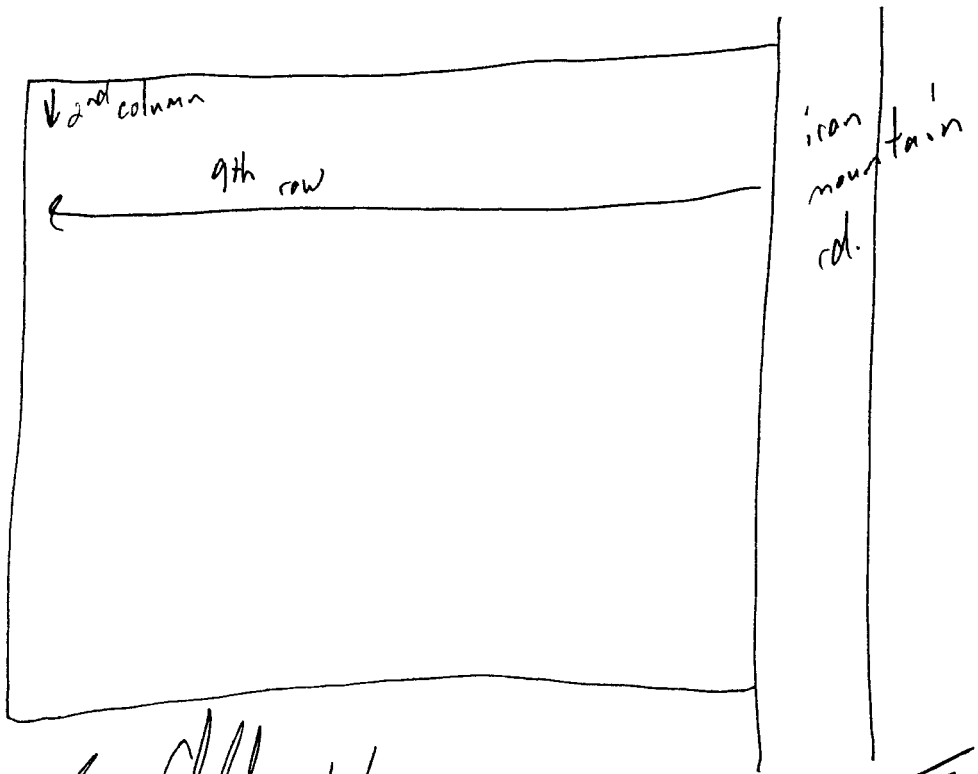
Start Depth: 0'
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: Kevin Arnold 2/4/99

Reviewed BY / Date: 2/5

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS19**

Sample Number: **KY0025**

Sample Name: **PPMP-122-SS19-SS-KY0025-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 14:05

Start Depth: 0'

End Depth: 6"

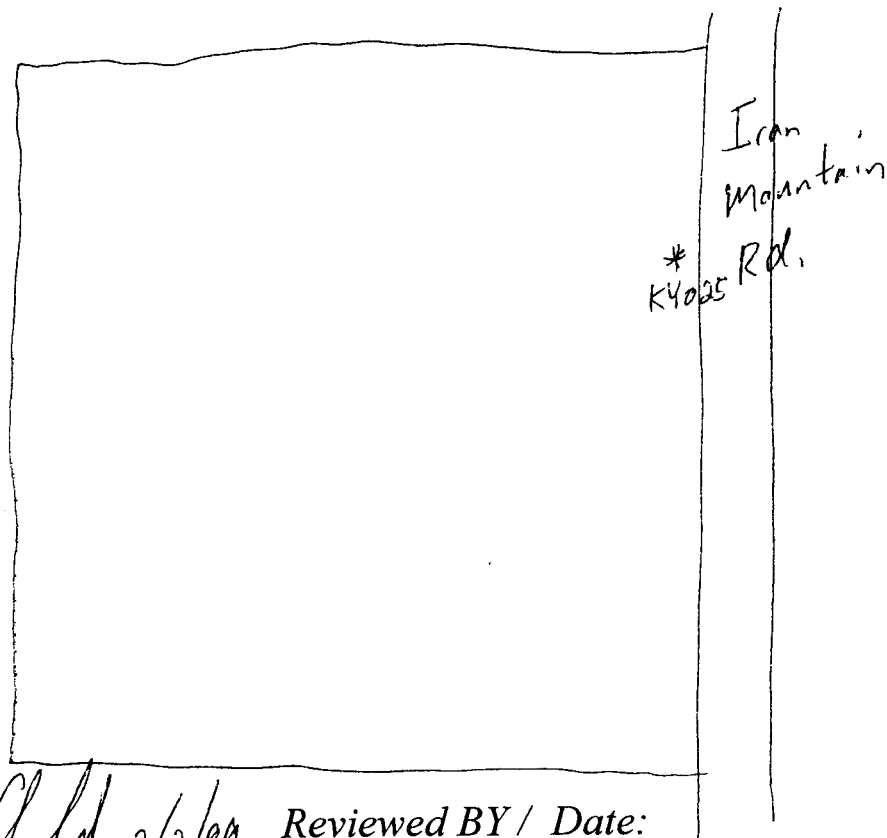
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: Kevin Arnold
Tim Mathes

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS20**
Sample Number: **KY0026**
Sample Name: **PPMP-122-SS20-SS-KY0026-REG**
Sampling Method: **DP**

Collection Date: 2-2-99
Collection Time: 1527

Start Depth: 0"
End Depth: 6"

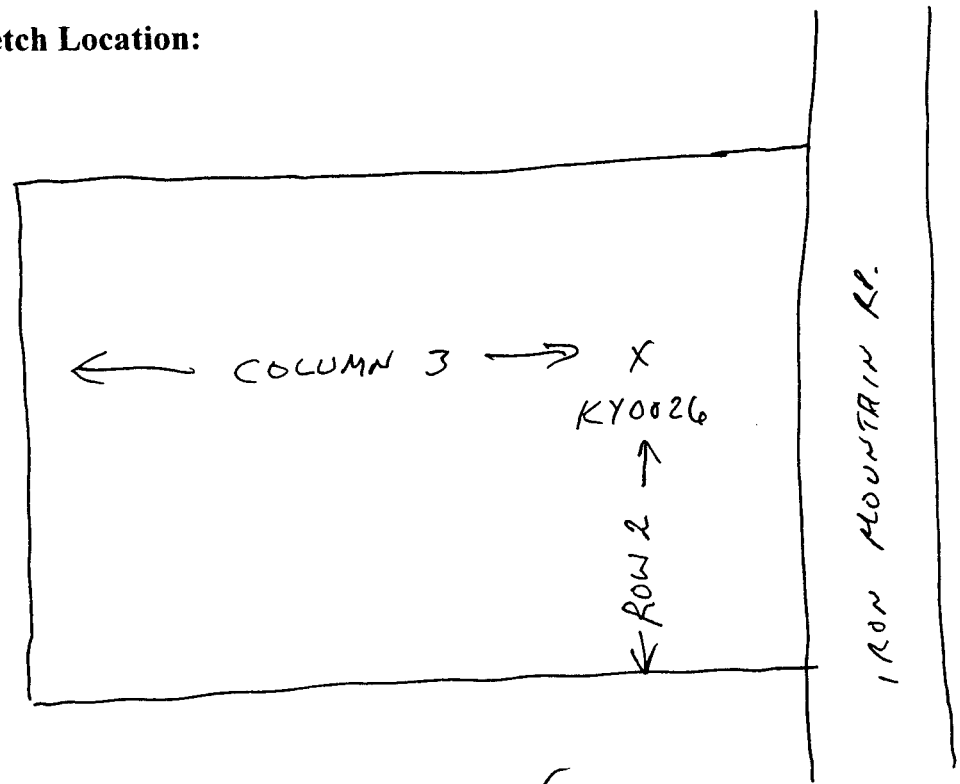
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: TIM MATHES
KEVIN ARNOLD

Comments: _____

Sketch Location:



Logged BY / Date: TMM 2-2-99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS21**

Sample Number: **KY0027**

Sample Name: **PPMP-122-SS21-SS-KY0027-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 0859

Start Depth: 0'

End Depth: 6"

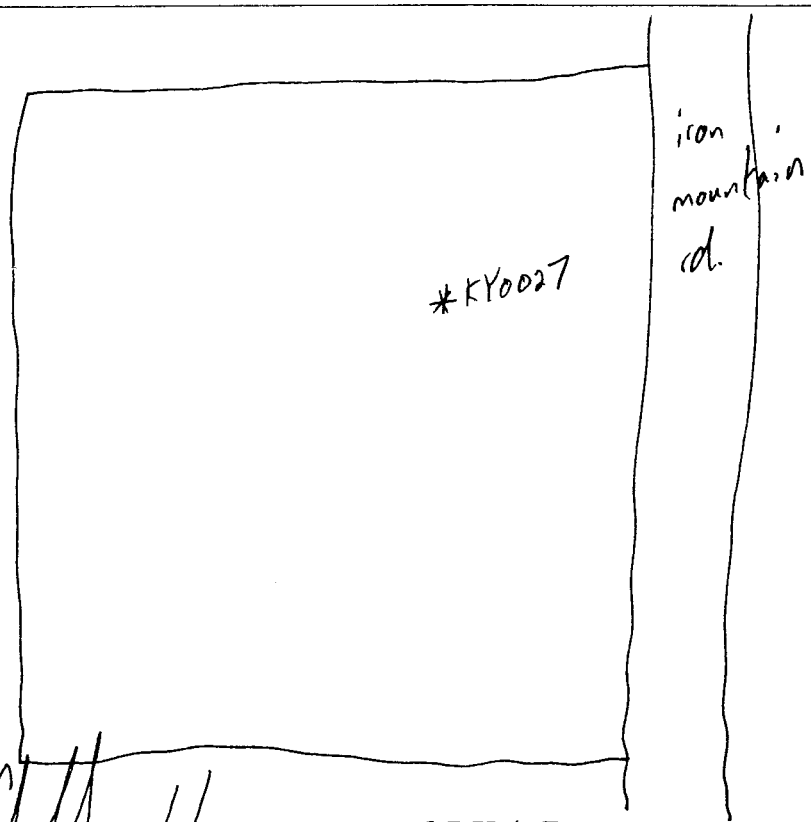
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS22**

Sample Number: **KY0028**

Sample Name: **PPMP-122-SS22-SS-KY0028-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 10:38

Start Depth: 0'

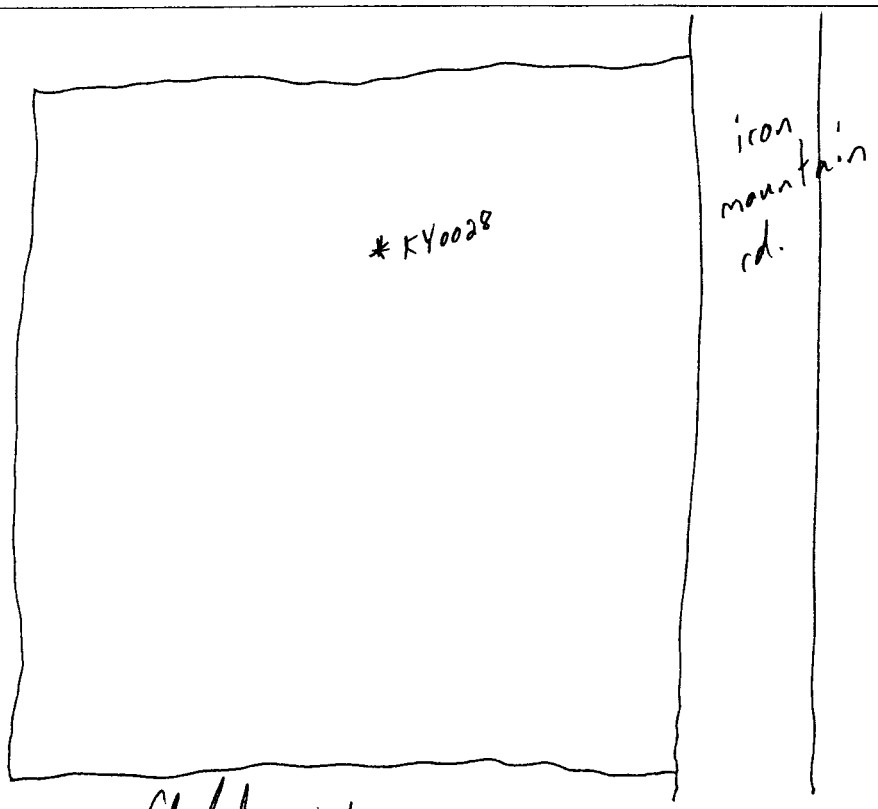
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS23**

Sample Number: **KY0029**

Sample Name: **PPMP-122-SS23-SS-KY0029-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 13:48

Start Depth: 0'

End Depth: 6"

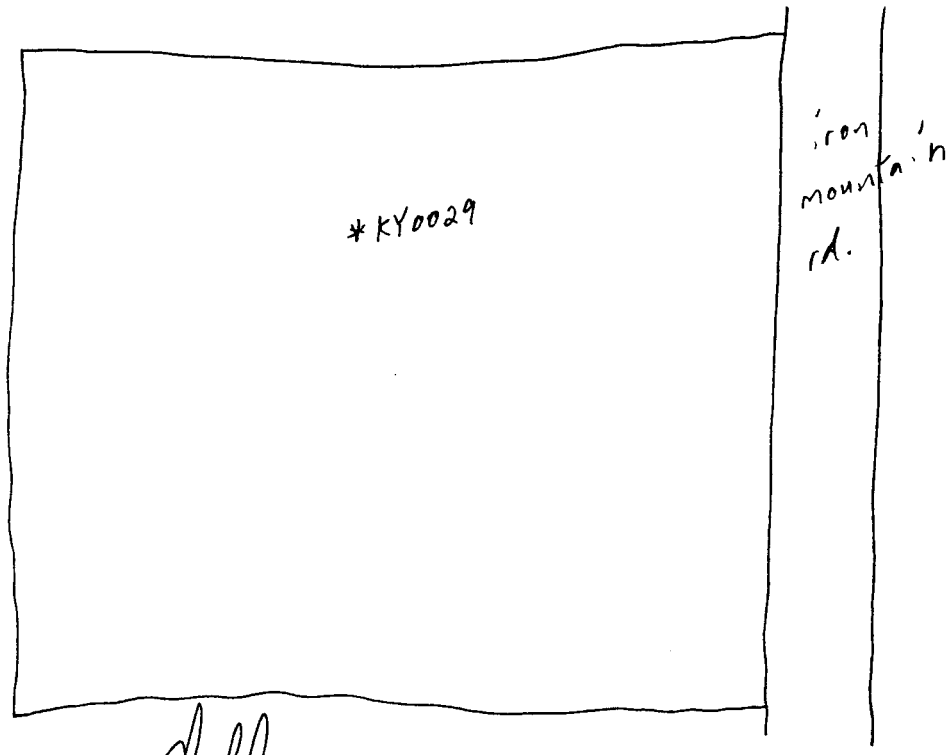
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS24**

Sample Number: **KY0030**

Sample Name: **PPMP-122-SS24-SS-KY0030-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 14:42

Start Depth: 0'

End Depth: 6"

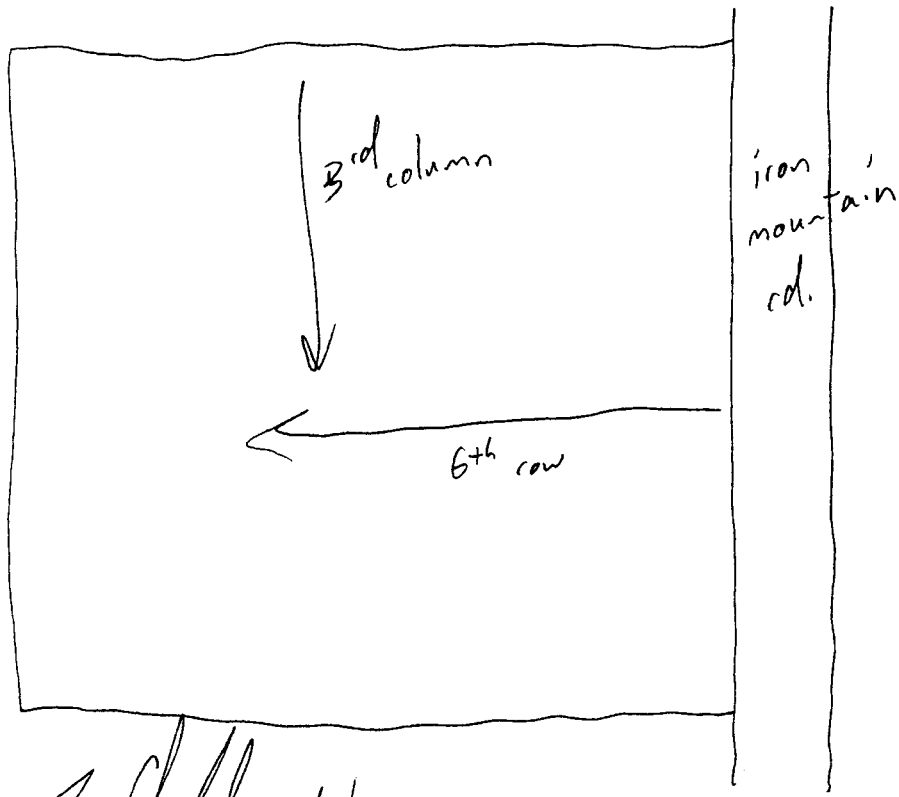
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: Kevin Arnold
Tim Mathes

Comments: _____

Sketch Location:



Logged BY / Date: [signature] 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS25**
Sample Number: **KY0031**
Sample Name: **PPMP-122-SS25-SS-KY0031-REG**
Sampling Method: **DP**

Collection Date: 2/3/99
Collection Time: 16:43

Start Depth: 0'
End Depth: 6"

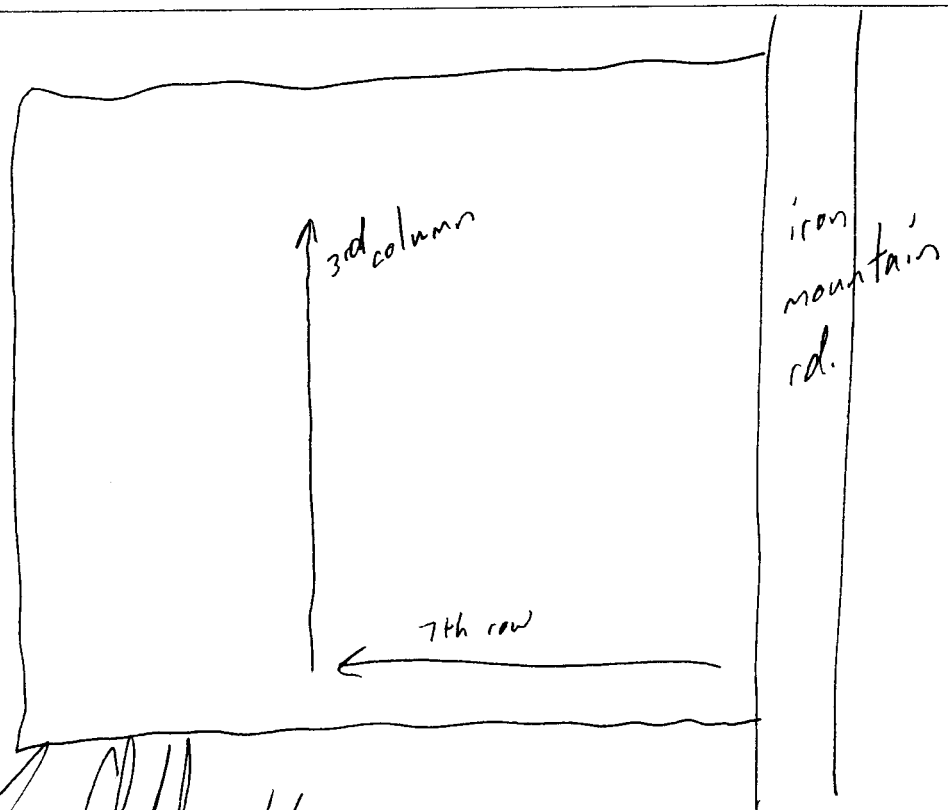
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-020599-QST

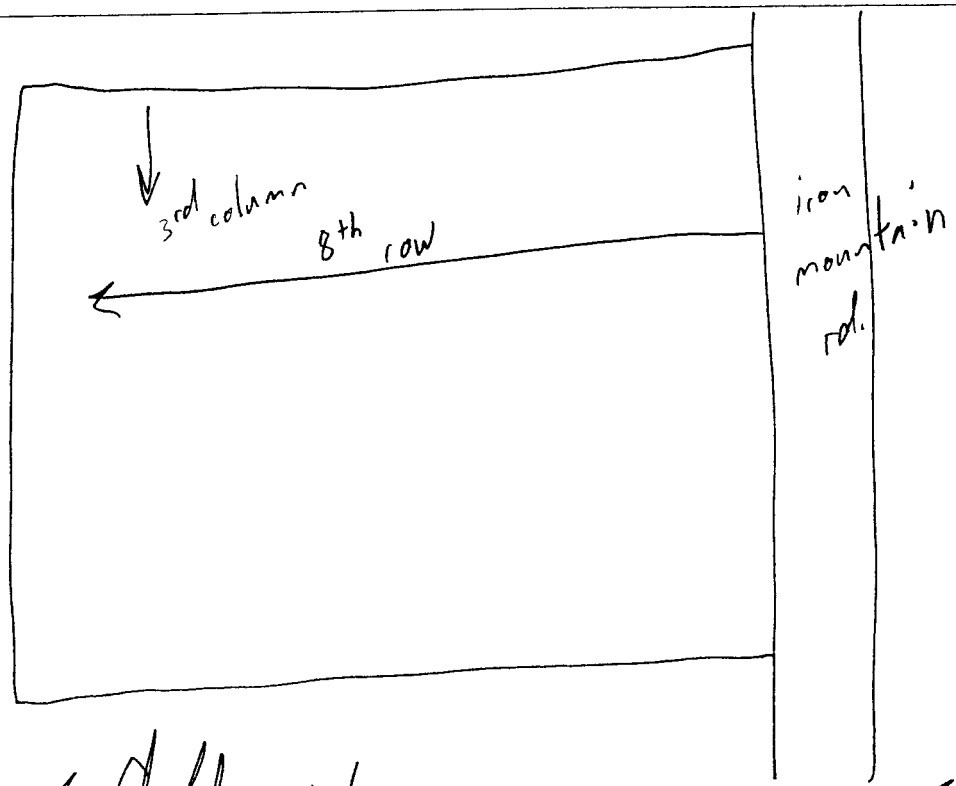
Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS26**
Sample Number: **KY0032**
Sample Name: **PPMP-122-SS26-SS-KY0032-REG**
Sampling Method: **DP**

Collection Date: 2/4/99
Collection Time: 0919
Start Depth: 0'
End Depth: 6"
Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/4/99
Reviewed BY / Date: 2/5/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-020499-QST

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS27**

Sample Number: **KY0033**

Sample Name: **PPMP-122-SS27-SS-KY0033-REG**

Sampling Method: **DP**

Collection Date: 2/4/99

Collection Time: 1006

Start Depth: 0'

End Depth: 6"

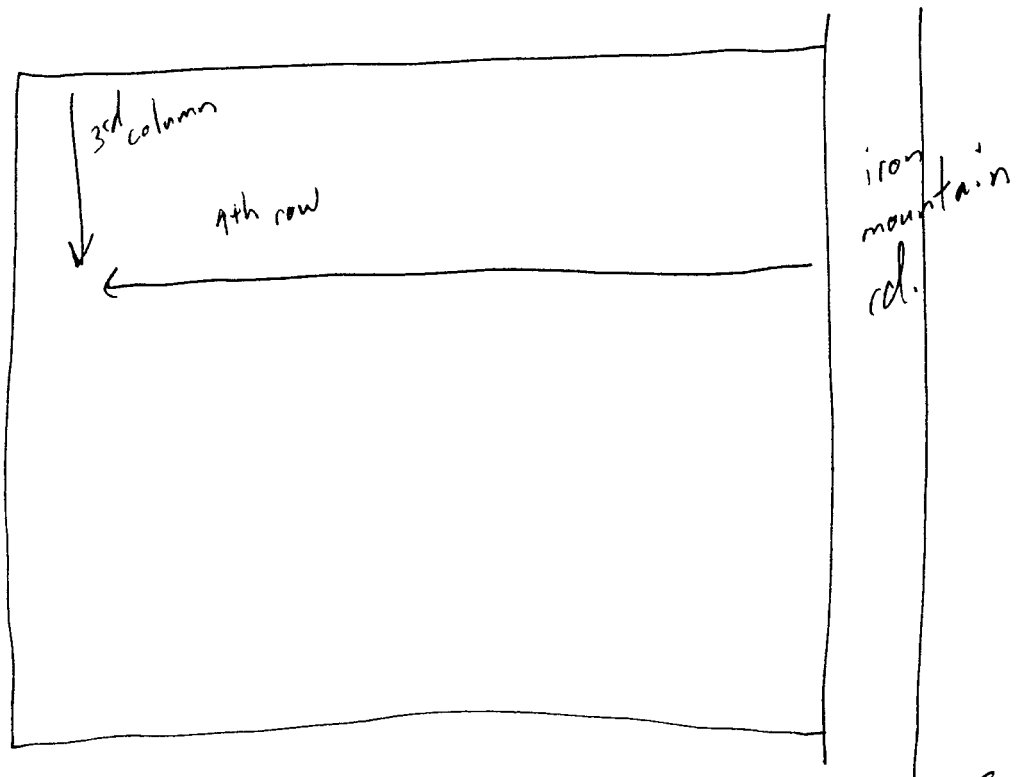
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: _____

Reviewed BY / Date: 2/5/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS28**

Sample Number: **KY0034**

Sample Name: **PPMP-122-SS28-SS-KY0034-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 14:14

Start Depth: 0'

End Depth: 6"

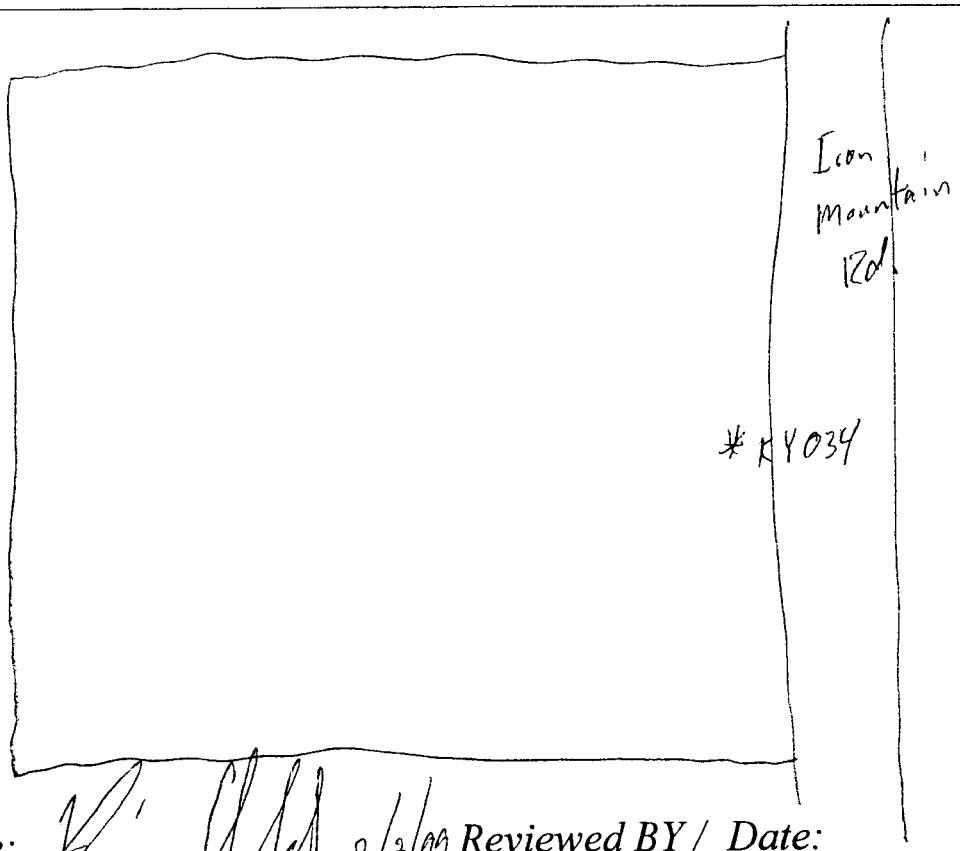
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS29**
Sample Number: **KY0035**
Sample Name: **PPMP-122-SS29-SS-KY0035-REG**
Sampling Method: **DP**

Collection Date: 2-2-99
Collection Time: 1532

Start Depth: 0"
End Depth: 6"

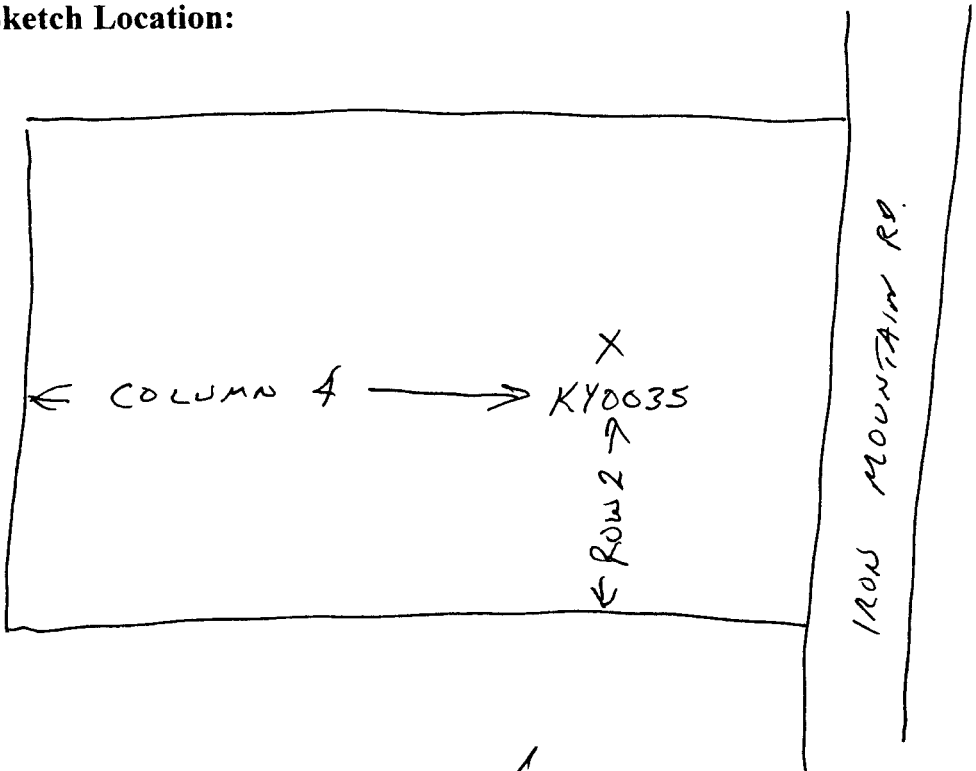
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: TIM MATHES
KEVIN ARNOLD

Comments: _____

Sketch Location:



Logged BY / Date: J. Mc 2-2-99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS30**

Sample Number: **KY0036**

Sample Name: **PPMP-122-SS30-SS-KY0036-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 0908

Start Depth: 0'

End Depth: 6"

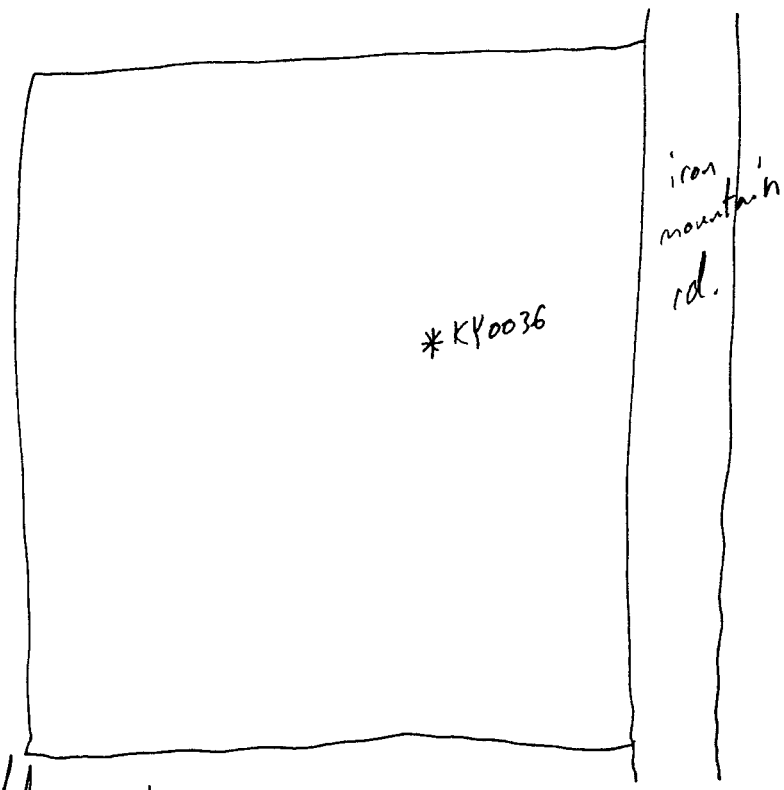
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS31**

Sample Number: **KY0037**

Sample Name: **PPMP-122-SS31-SS-KY0037-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 1047

Start Depth: 0'

End Depth: 6"

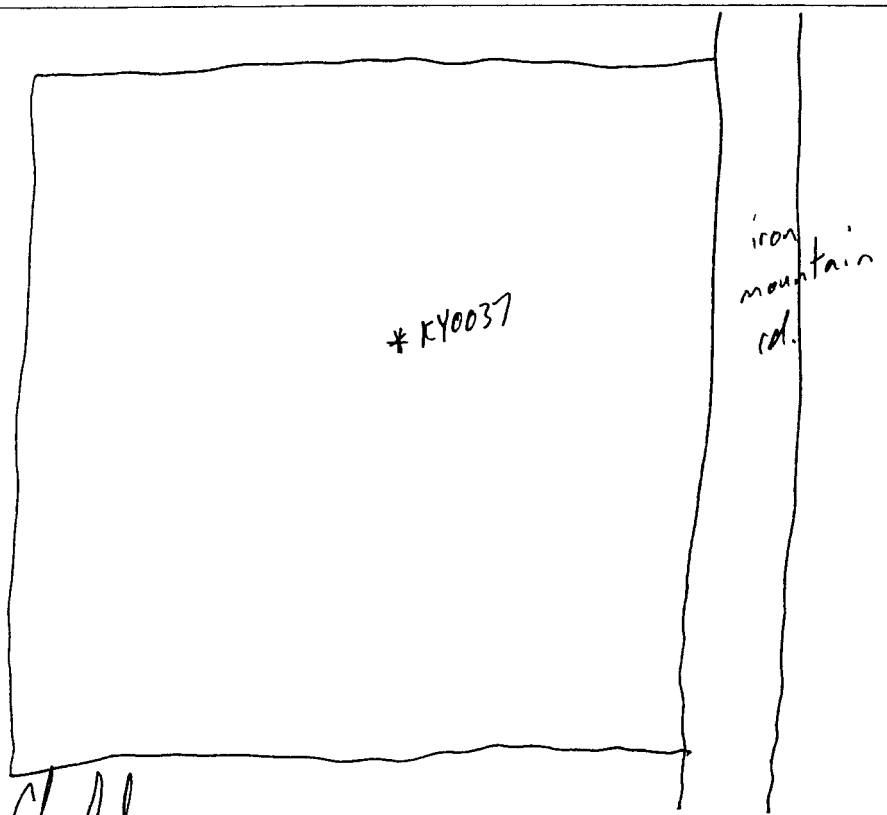
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold

Reviewed BY / Date: _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS32**

Sample Number: **KY0038**

Sample Name: **PPMP-122-SS32-SS-KY0038-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 13:52

Start Depth: 0'

End Depth: 6"

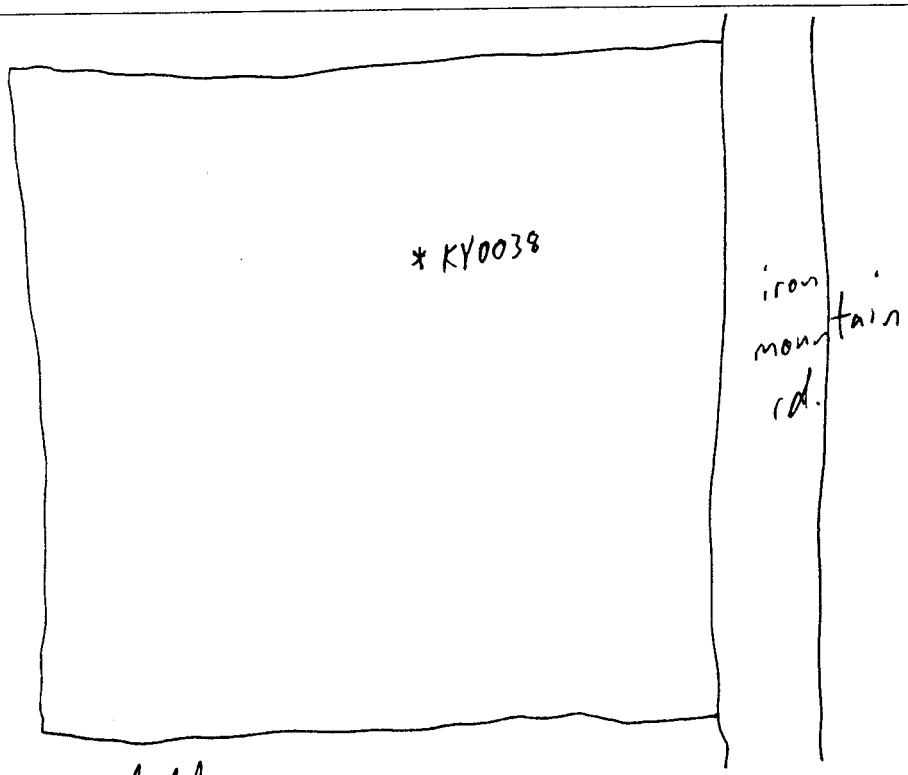
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS33**
Sample Number: **KY0039**
Sample Name: **PPMP-122-SS33-SS-KY0039-REG**
Sampling Method: **DP**

Collection Date: 2/3/99
Collection Time: 1446

Start Depth: 0'
End Depth: 6"

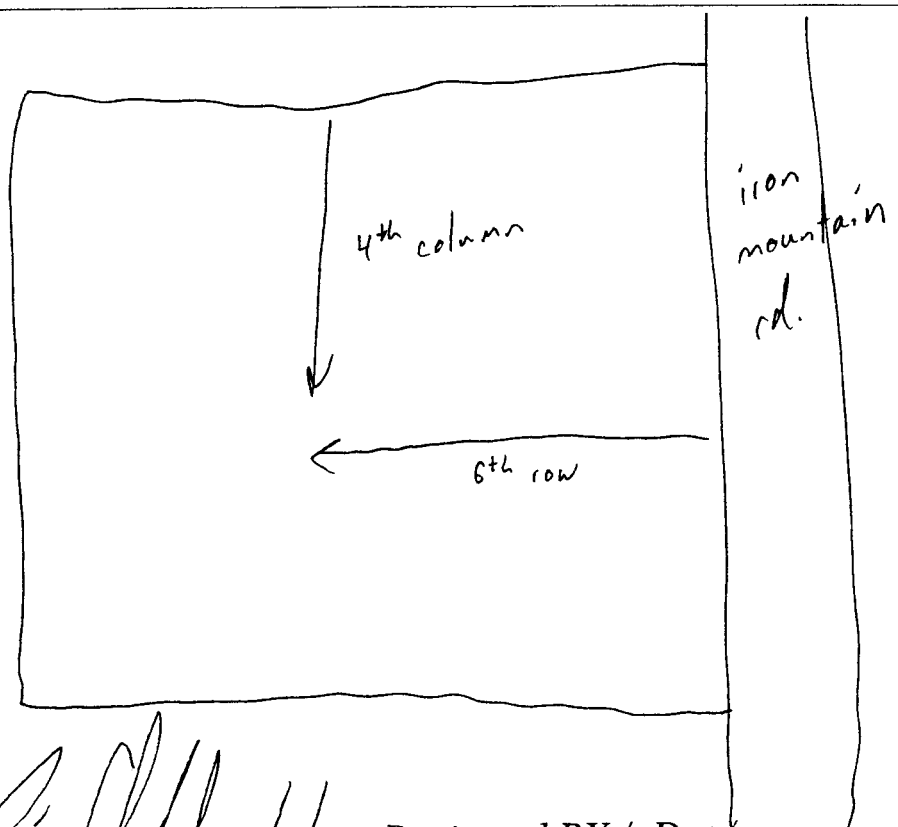
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS34**

Sample Number: **KY0040**

Sample Name: **PPMP-122-SS34-SS-KY0040-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 16:53

Start Depth: 0'

End Depth: 6"

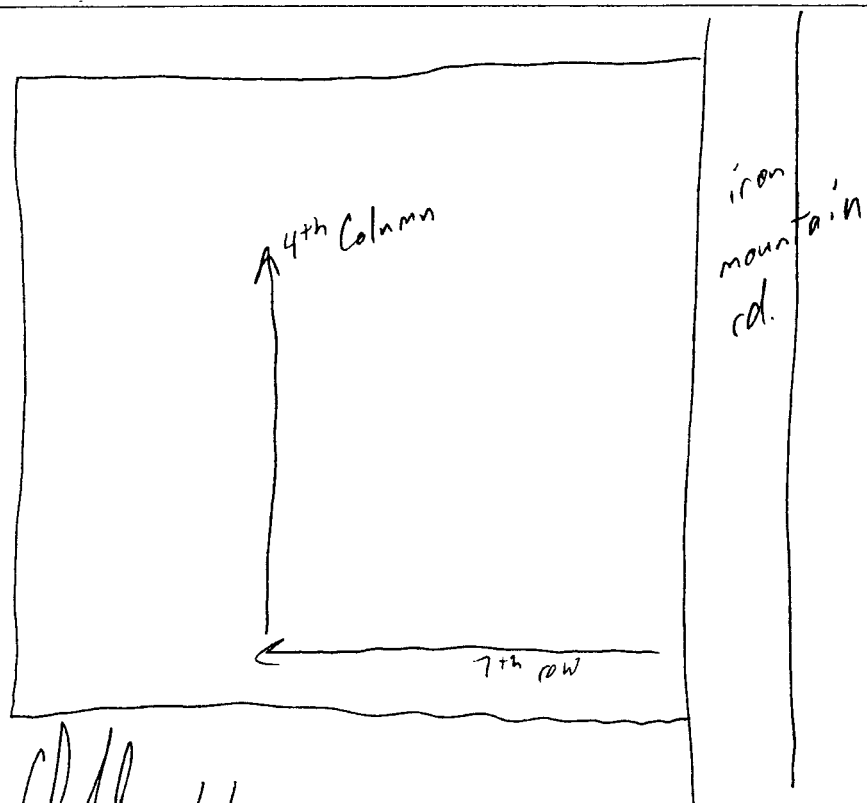
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/3/99

Reviewed BY / Date: _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-070499-QST

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS35**

Sample Number: **KY0041**

Sample Name: **PPMP-122-SS35-SS-KY0041-REG**

Sampling Method: **DP**

Collection Date: 2/4/99

Collection Time: 0924

Start Depth: 0'

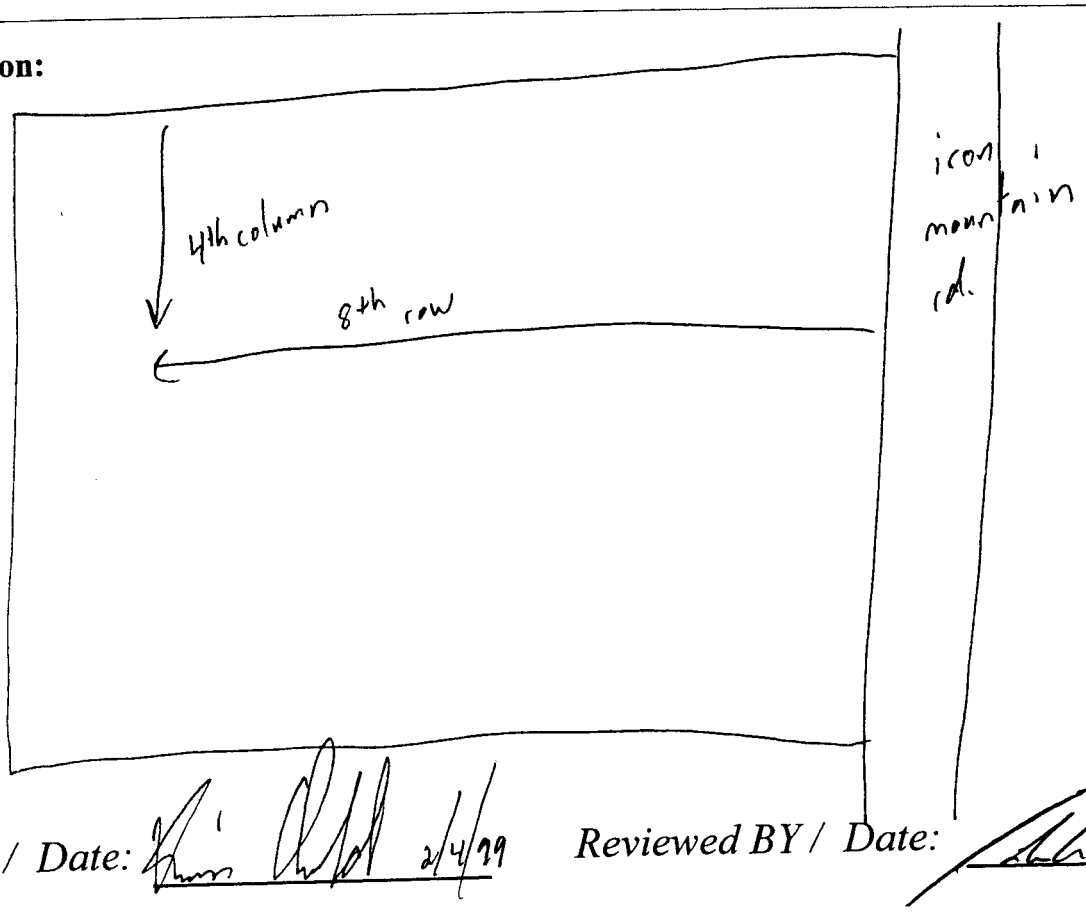
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/4/99

Reviewed BY / Date: 2/5/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-020499-QST

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS36**

Sample Number: **KY0042**

Sample Name: **PPMP-122-SS36-SS-KY0042-REG**

Sampling Method: **DP**

Collection Date: 2/4/99

Collection Time: 1017

Start Depth: 0'

End Depth: 6"

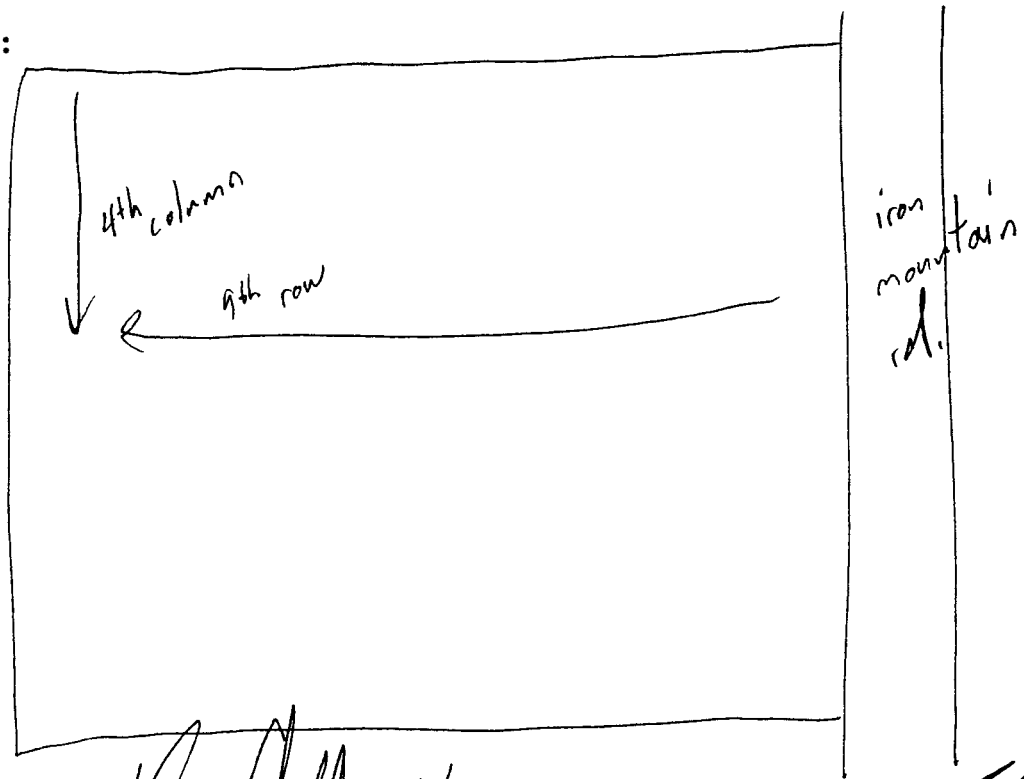
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/4/99

Reviewed BY / Date: 2/5/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS37**

Sample Number: **KY0043**

Sample Name: **PPMP-122-SS37-SS-KY0043-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 14:25

Start Depth: 0'

End Depth: 6"

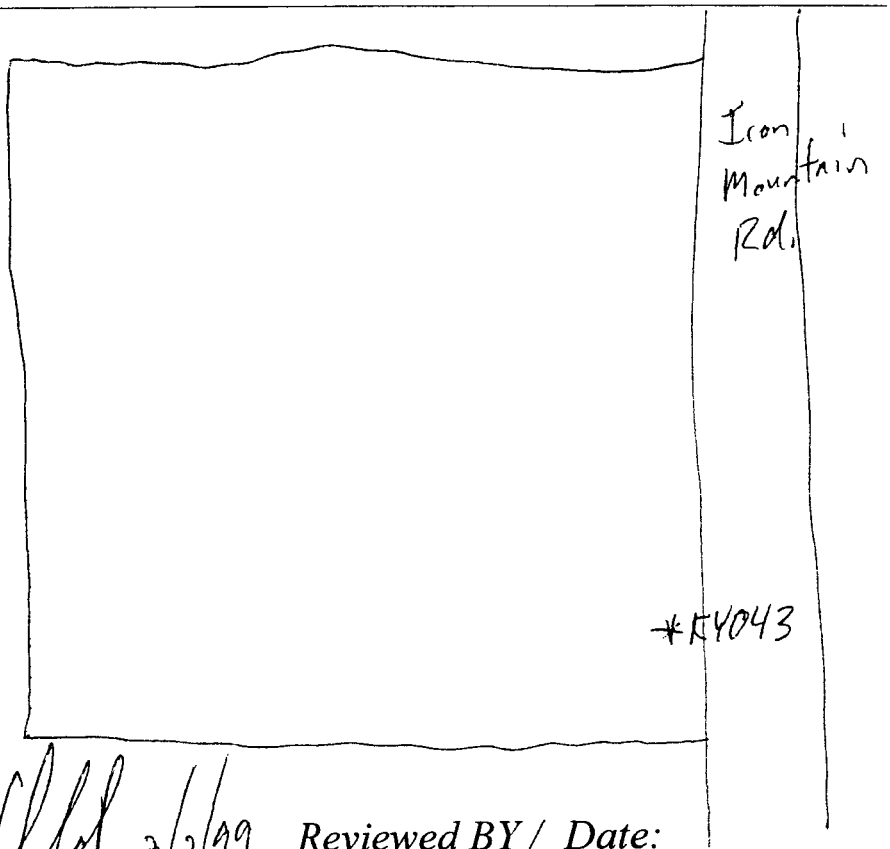
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: Kevin Arnold 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS38**
Sample Number: **KY0044**
Sample Name: **PPMP-122-SS38-SS-KY0044-REG**
Sampling Method: **DP**

Collection Date: 2-2-99
Collection Time: 1542

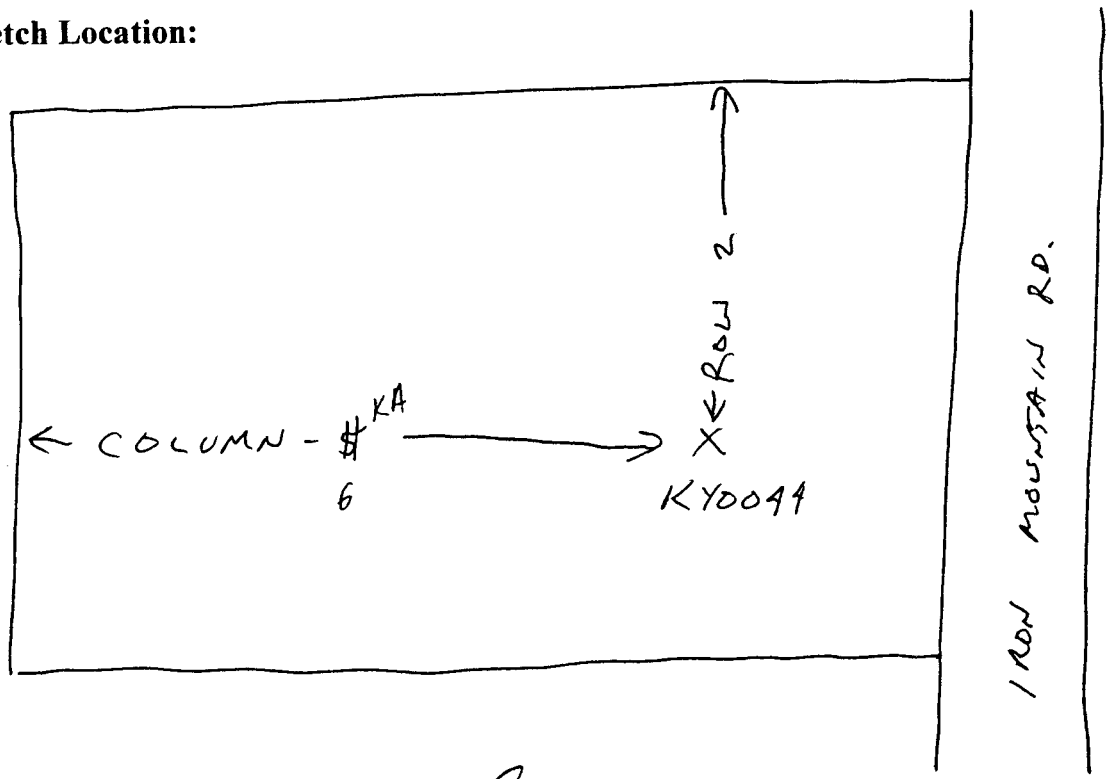
Start Depth: 0''
End Depth: 6''

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: TIM MATHES
KEVIN ARNOLD

Comments: _____

Sketch Location:



Logged BY / Date: J. McKee 2-2-99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS39**

Sample Number: **KY0045**

Sample Name: **PPMP-122-SS39-SS-KY0045-REG**

Sampling Method: **DP**

RFA / COC Number: _____

Collection Date: 8/3/99

Collection Time: 0916

Start Depth: 0'

End Depth: 6"

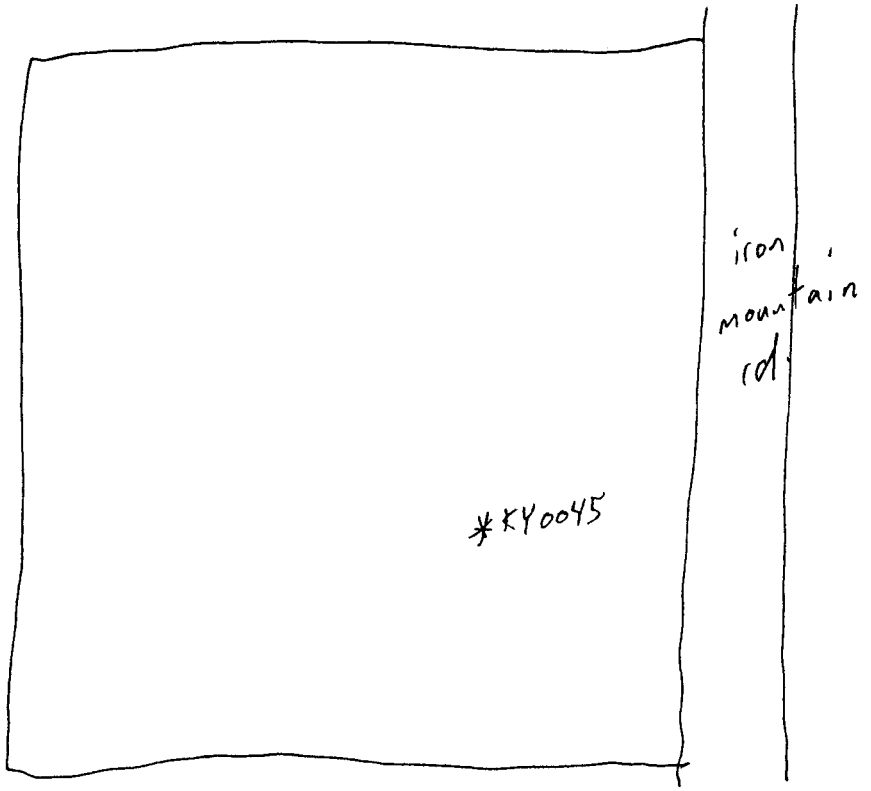
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: _____ *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS40**
Sample Number: **KY0046**
Sample Name: **PPMP-122-SS40-SS-KY0046-REG**
Sampling Method: **DP**

Collection Date: 2/3/99
Collection Time: 1056

Start Depth: 0'
End Depth: 6"

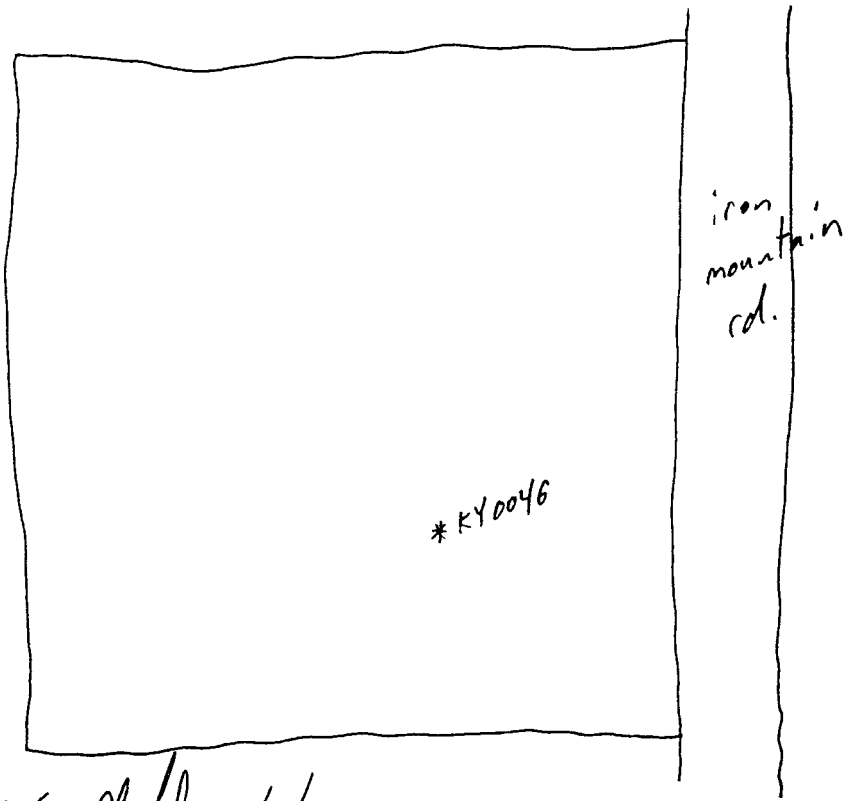
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS41**

Sample Number: **KY0047**

Sample Name: **PPMP-122-SS41-SS-KY0047-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 13:59

Start Depth: 0'

End Depth: 6"

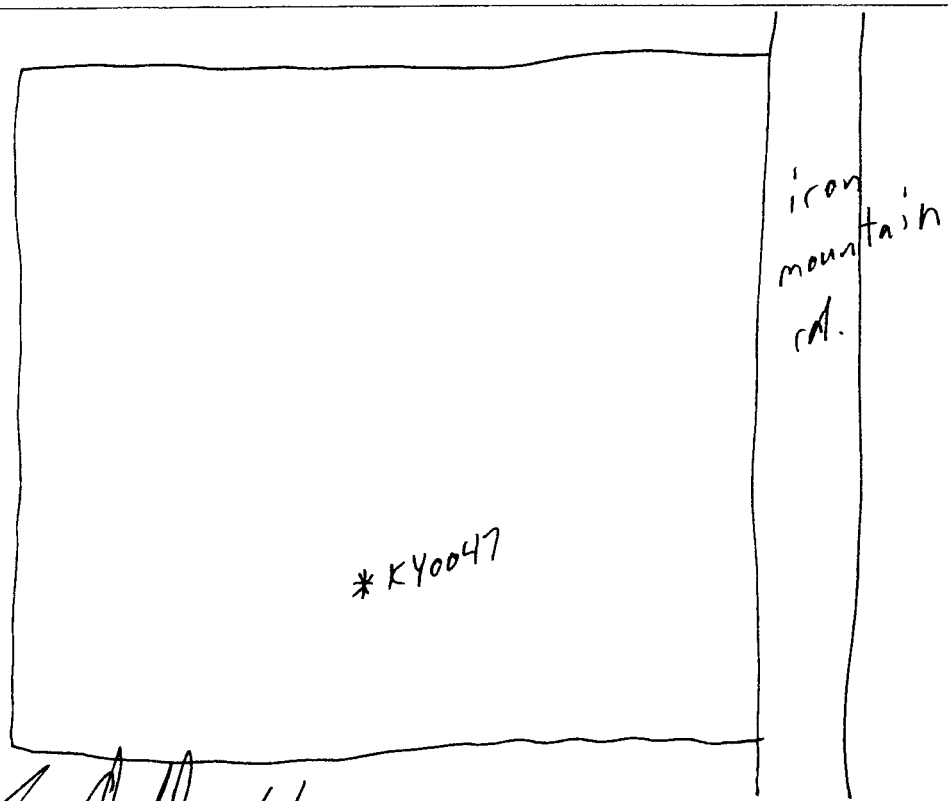
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS42**

Sample Number: **KY0048**

Sample Name: **PPMP-122-SS42-SS-KY0048-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 1454

Start Depth: 0'

End Depth: 6"

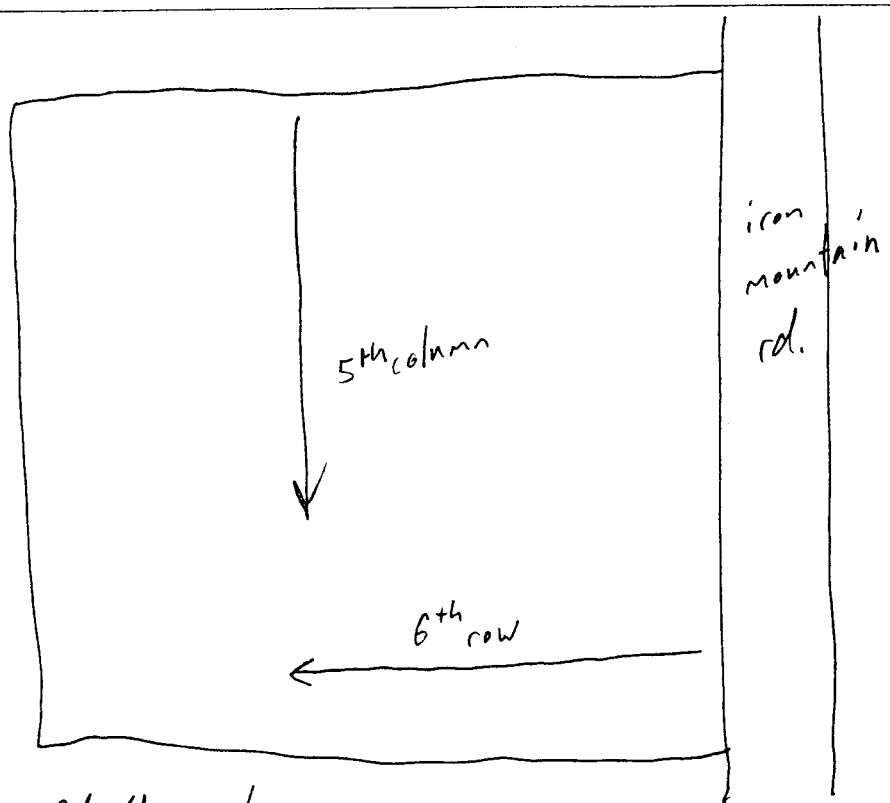
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: Kevin Arnold
Tim Mathes

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS43**

Sample Number: **KY0049**

Sample Name: **PPMP-122-SS43-SS-KY0049-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: ~~2/3/99~~ KA 16:56

Start Depth: 0'

End Depth: 6"

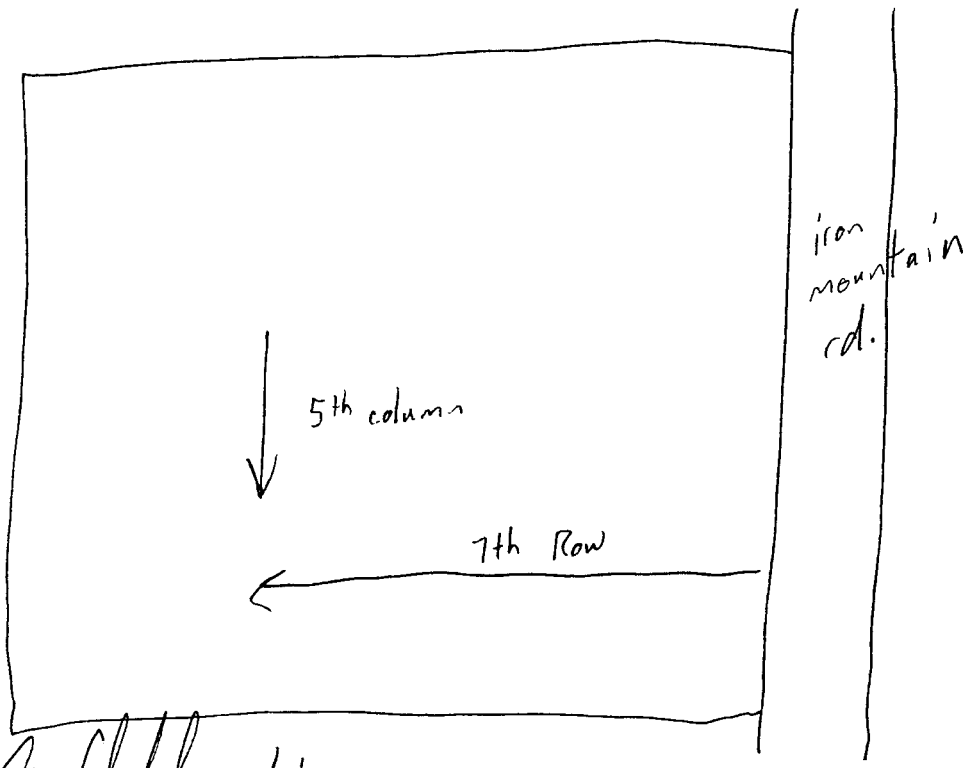
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-020499-QST

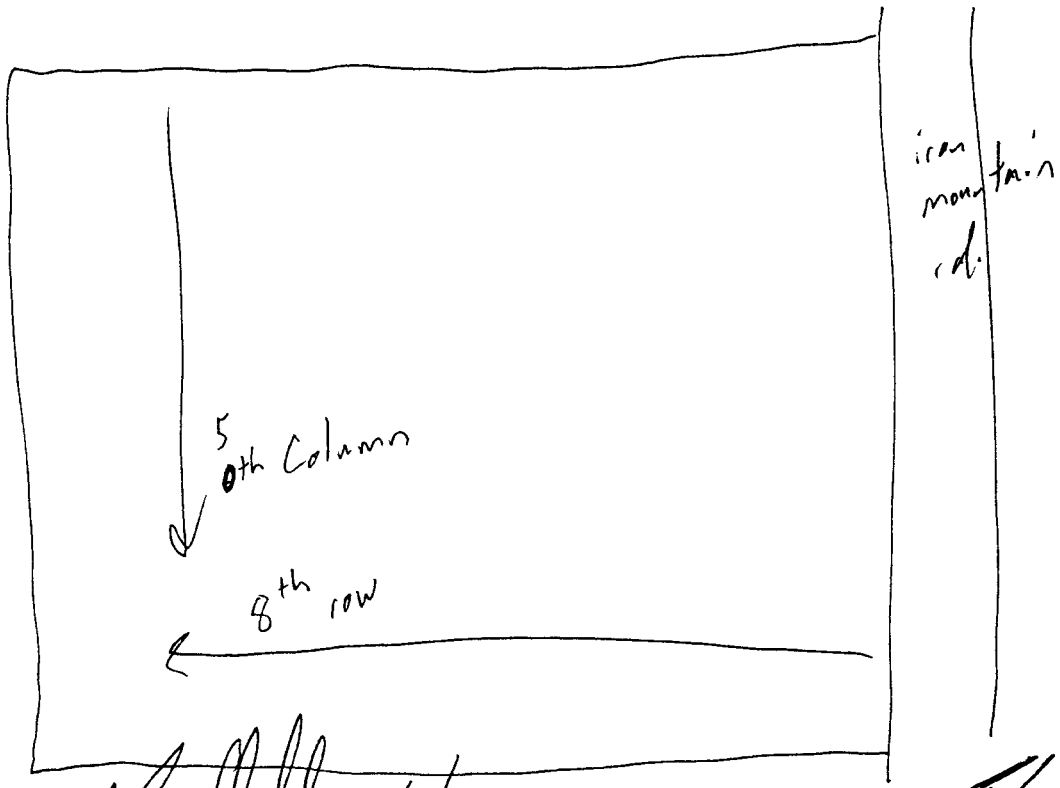
Site: Former Fog Oil Storage Area West of the Ske
Location Code: PPMP-122-SS44
Sample Number: KY0050
Sample Name: PPMP-122-SS44-SS-KY0050-REG
Sampling Method: DP

Collection Date: 2/4/99
Collection Time: 0930
Start Depth: 0'
End Depth: 6"
Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/4/99 *Reviewed BY / Date:* 2/5/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-020499-QST

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS45**

Sample Number: **KY0051**

Sample Name: **PPMP-122-SS45-SS-KY0051-REG**

Sampling Method: **DP**

Collection Date: 2/4/99

Collection Time: 1023

Start Depth: 0'

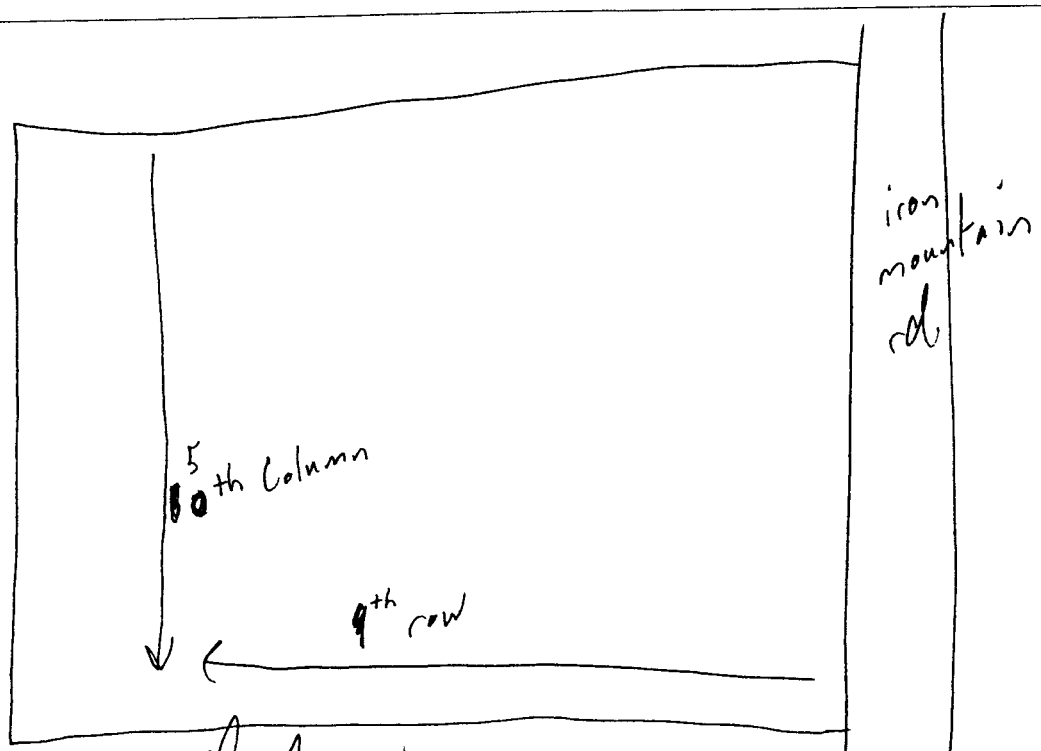
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/4/99

Reviewed BY / Date: 2/5/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS46**
Sample Number: **KY0052**
Sample Name: **PPMP-122-SS46-SS-KY0052-REG**
Sampling Method: **DP**

Collection Date: 2/2/99
Collection Time: 14:35

Start Depth: 0'
End Depth: 6"

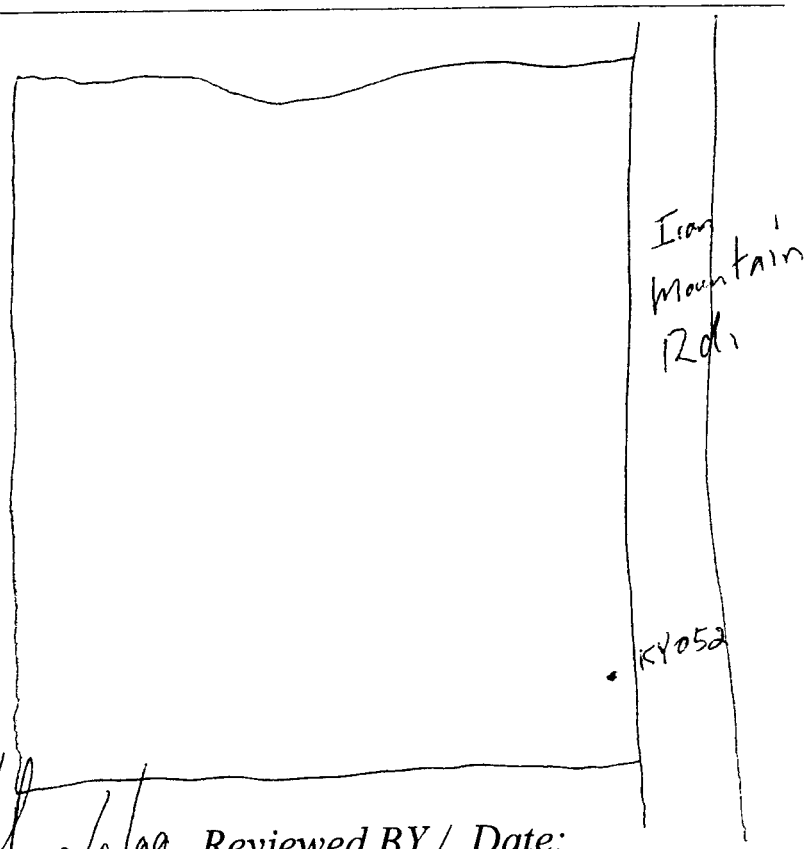
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS47**

Sample Number: **KY0053**

Sample Name: **PPMP-122-SS47-SS-KY0053-REG**

Sampling Method: **DP**

Collection Date: 2-2-99

Collection Time: 1604

Start Depth: 0"

End Depth: 6"

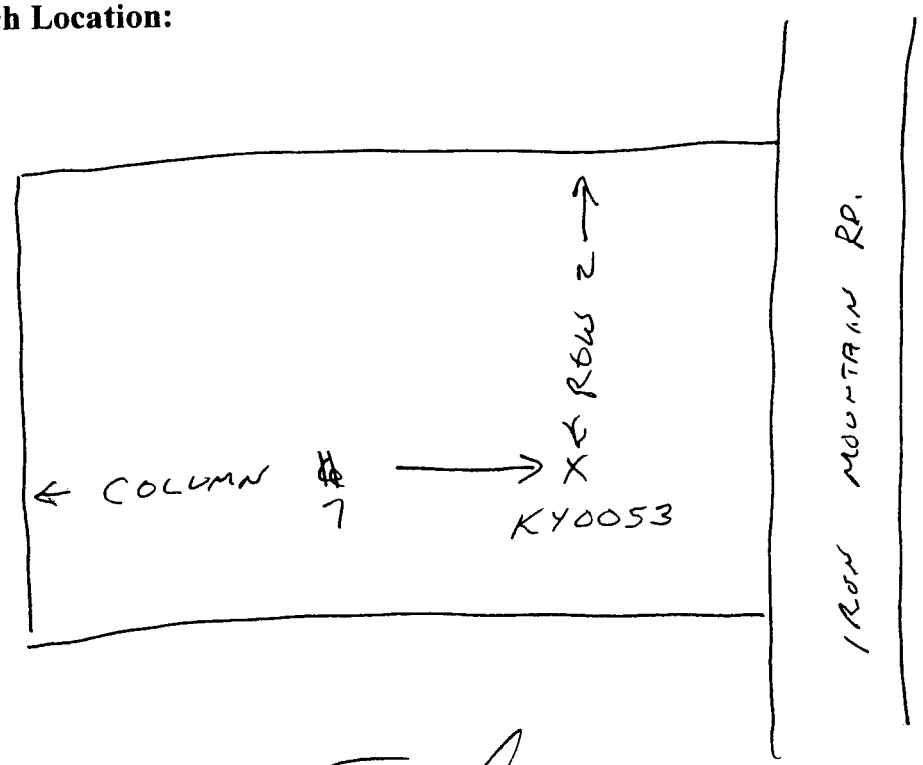
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: TIM MATAS
KEVIN ARNOLD

Comments: _____

Sketch Location:



Logged BY / Date: _____

Reviewed BY / Date: _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS48**

Sample Number: **KY0054**

Sample Name: **PPMP-122-SS48-SS-KY0054-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 0923

Start Depth: 0'

End Depth: 6"

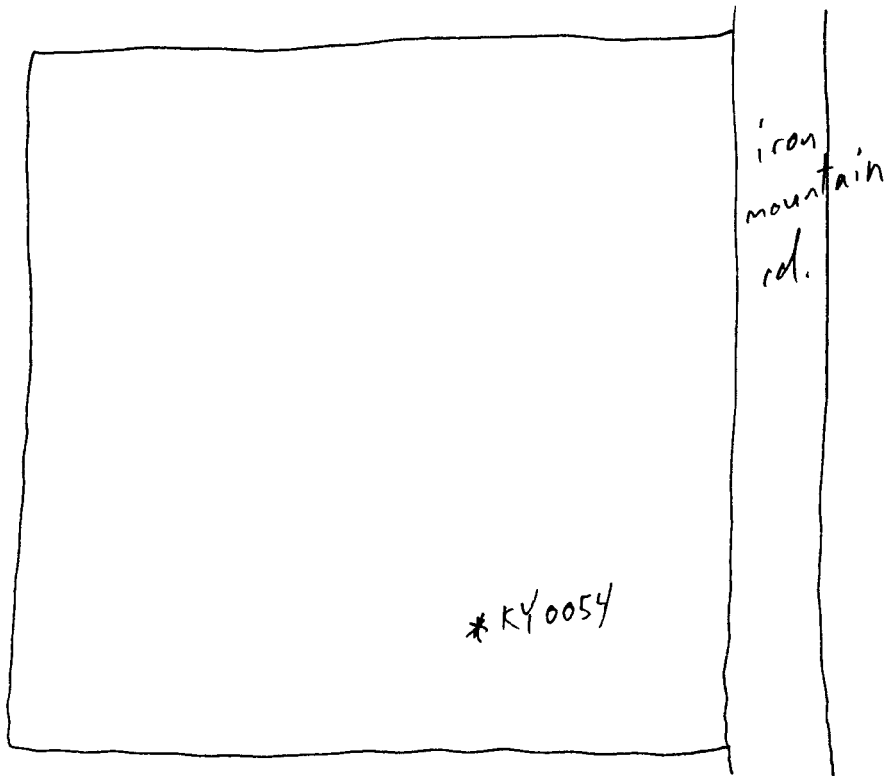
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: Kevin Arnold
Tim Mathes

Comments: _____

Sketch Location:



Logged BY / Date: _____

Reviewed BY / Date: _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS49**

Sample Number: **KY0055**

Sample Name: **PPMP-122-SS49-SS-KY0055-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 1107

Start Depth: 0'

End Depth: 6"

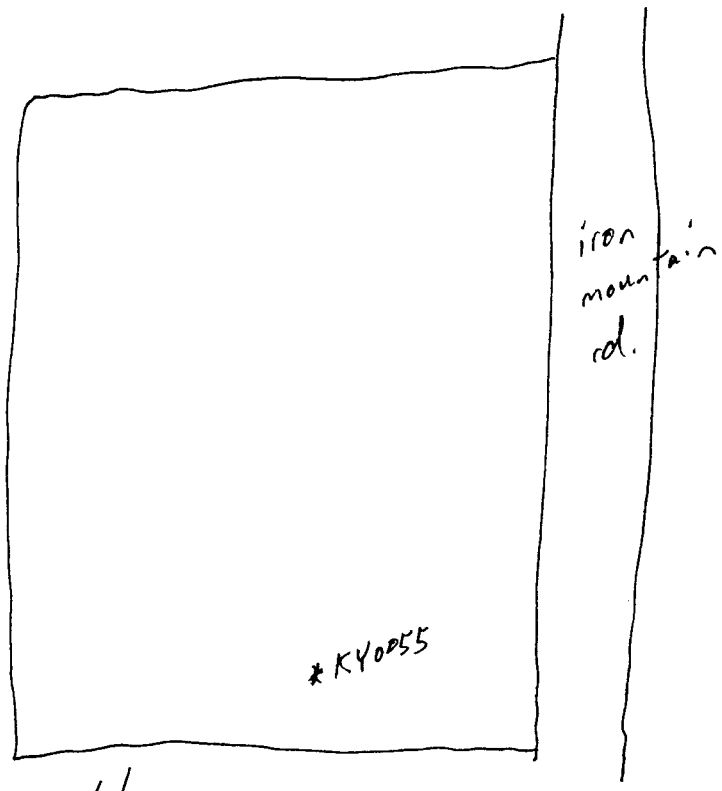
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: [signature] 2/3/99

Reviewed BY / Date: _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS50**

Sample Number: **KY0056**

Sample Name: **PPMP-122-SS50-SS-KY0056-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 1405

Start Depth: 0'

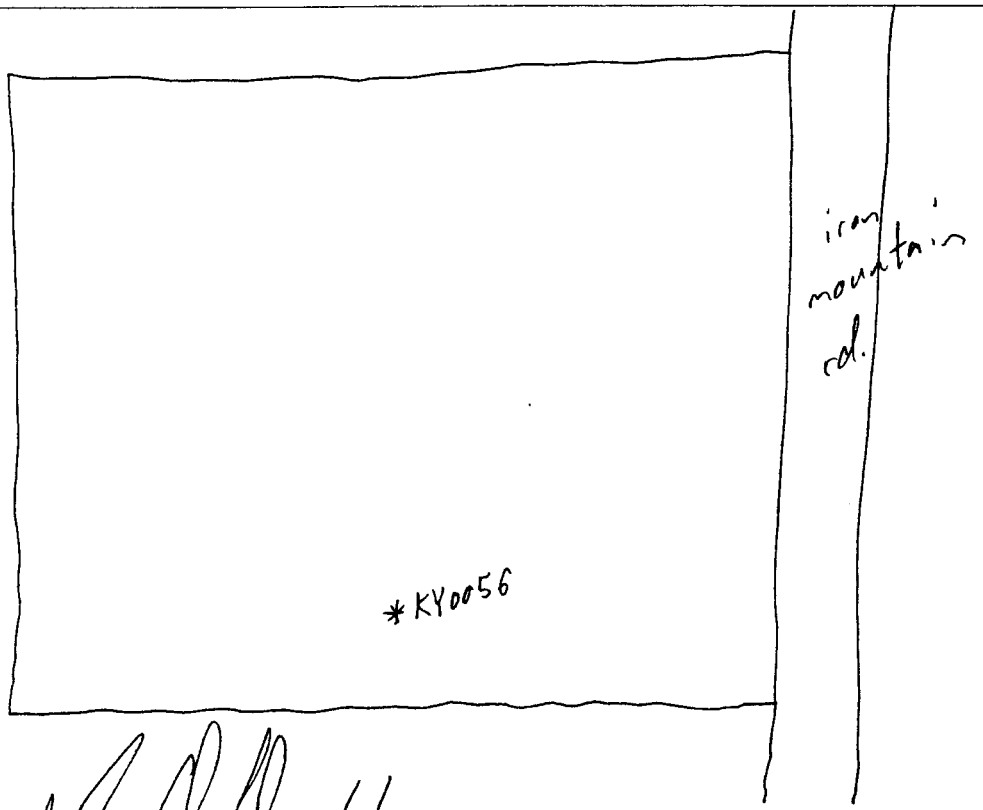
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS51**
Sample Number: **KY0057**
Sample Name: **PPMP-122-SS51-SS-KY0057-REG**
Sampling Method: **DP**

Collection Date: 2/3/99
Collection Time: 1511

Start Depth: 0'
End Depth: 6"

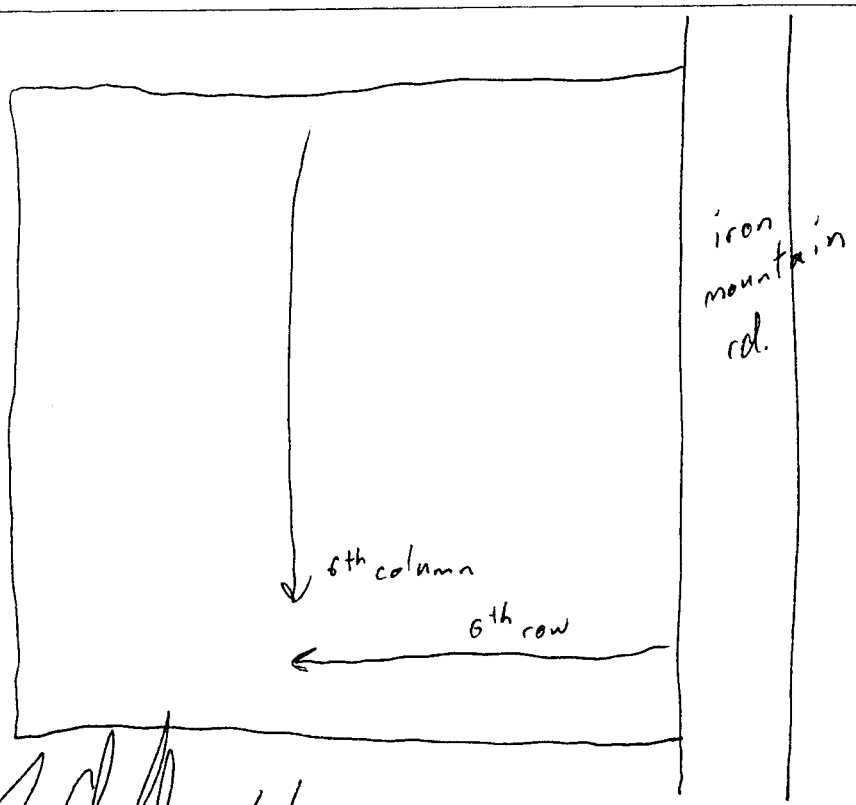
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS52**
Sample Number: **KY0058**
Sample Name: **PPMP-122-SS52-SS-KY0058-REG**
Sampling Method: **DP**

Collection Date: 2/3/99
Collection Time: 17:05
Start Depth: 0'
End Depth: 6"

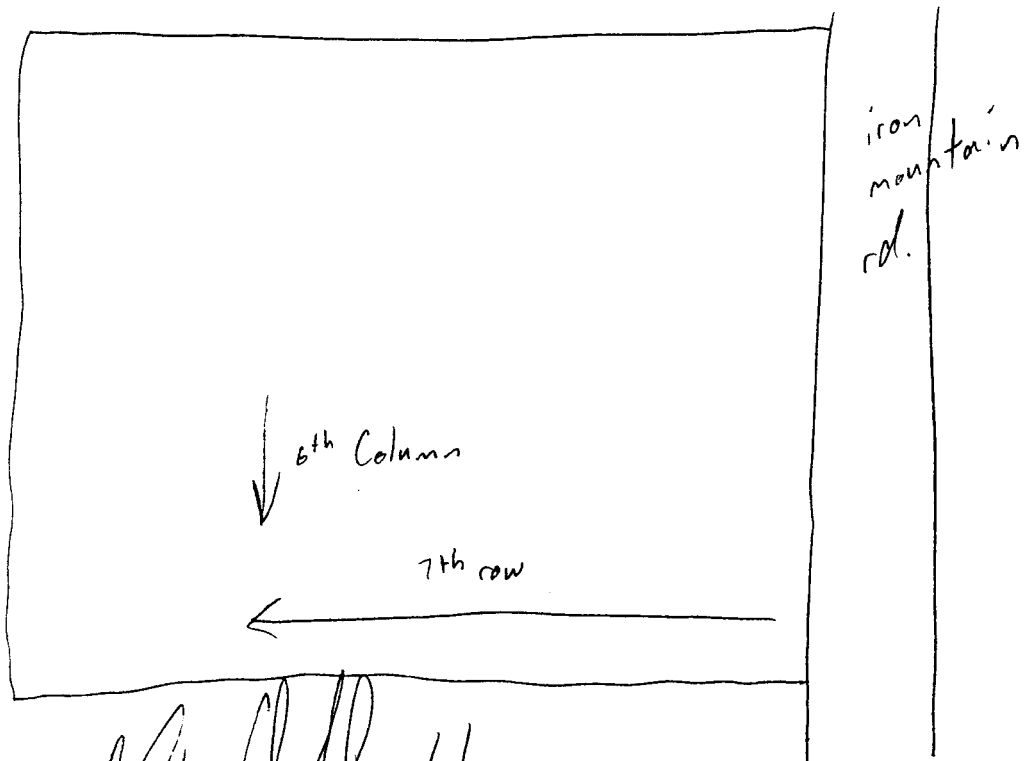
Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Sample Team: Kevin Arnold
Tim Mathes

Comments: _____

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-02499-PST

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS53**

Sample Number: **KY0059**

Sample Name: **PPMP-122-SS53-SS-KY0059-REG**

Sampling Method: **DP**

Collection Date: 2/4/99

Collection Time: 0936

Start Depth: 0'

End Depth: 6"

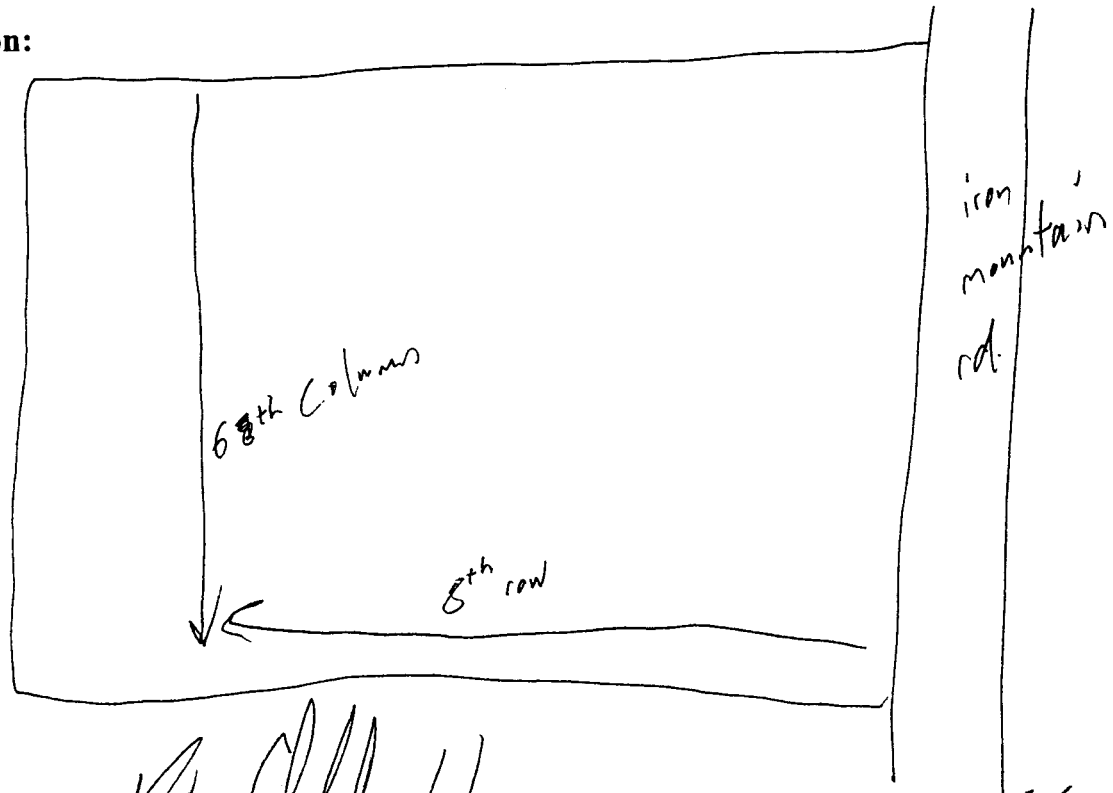
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/4/99

Reviewed BY / Date: 2/5/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-020499-QST

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS54**

Sample Number: **KY0060**

Sample Name: **PPMP-122-SS54-SS-KY0060-REG**

Sampling Method: **DP**

Collection Date: 2/4/99

Collection Time: 1029

Start Depth: 0'

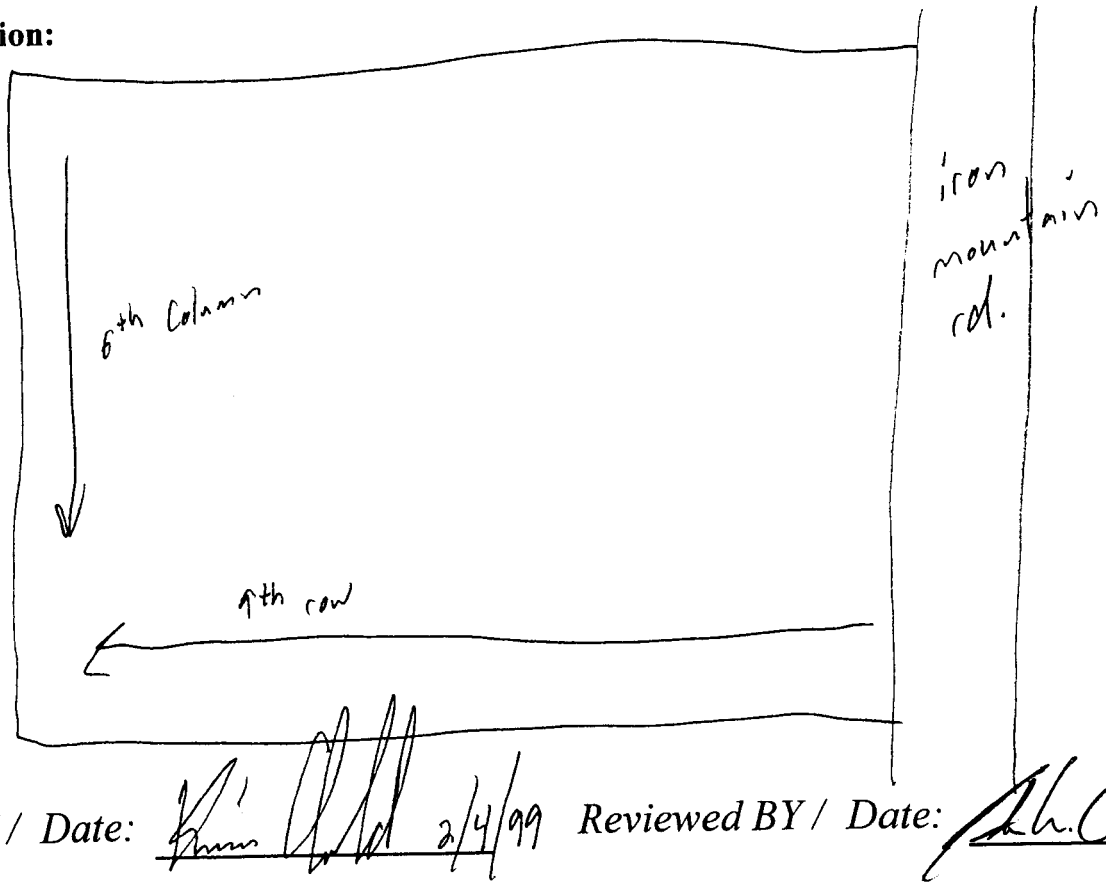
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/4/99 *Reviewed BY / Date:* 2/5/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS55**

Sample Number: **KY0061**

Sample Name: **PPMP-122-SS55-SS-KY0061-REG**

Sampling Method: **DP**

Collection Date: 2/2/99

Collection Time: 15:05

Start Depth: 0'

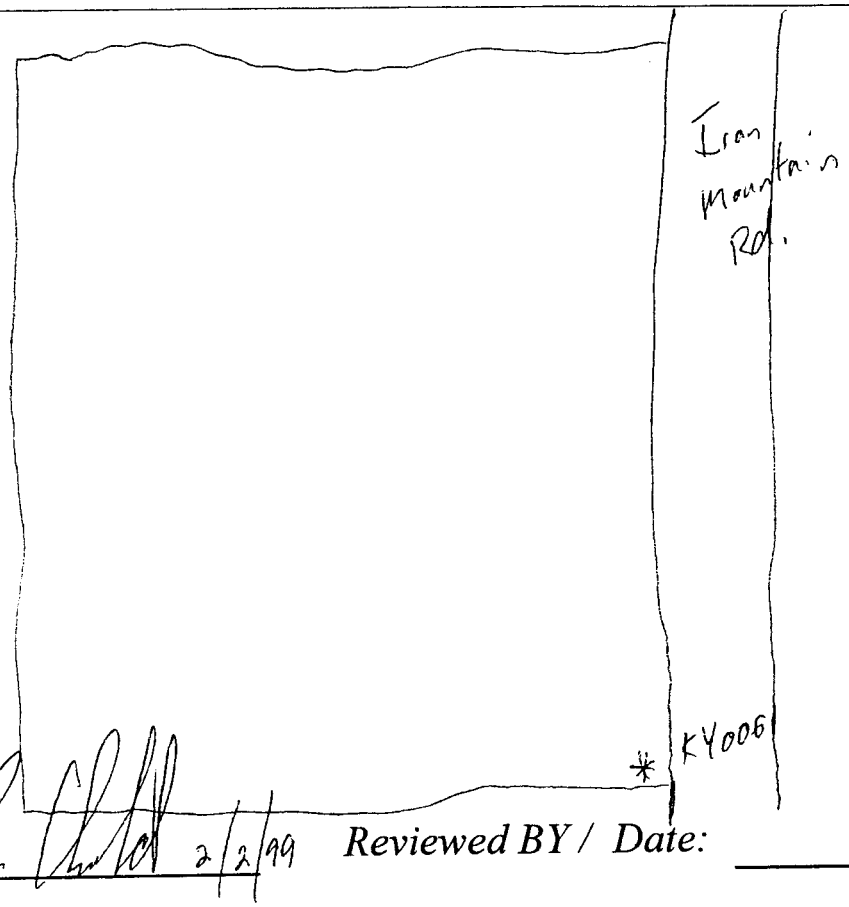
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/2/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number:

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS56**
Sample Number: **KY0062**
Sample Name: **PPMP-122-SS56-SS-KY0062-REG**
Sampling Method: **DP**

Collection Date: 2/3/99
Collection Time: 0842

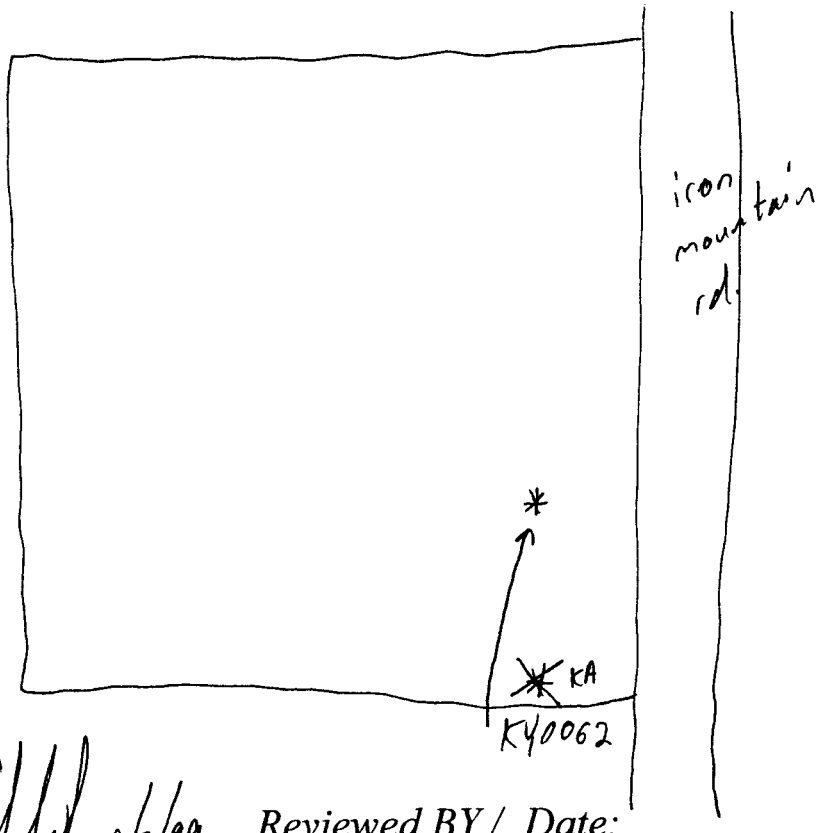
Start Depth: 0'
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:*

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS57**

Sample Number: **KY0063**

Sample Name: **PPMP-122-SS57-SS-KY0063-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 0931

Start Depth: 0'

End Depth: 6"

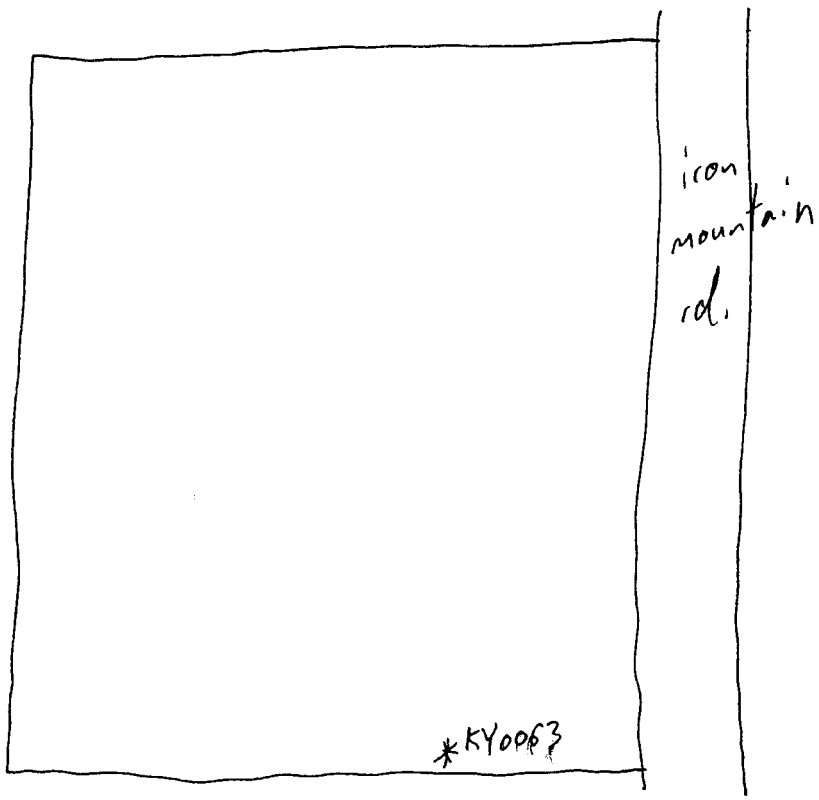
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: _____ *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS58**
Sample Number: **KY0064**
Sample Name: **PPMP-122-SS58-SS-KY0064-REG**
Sampling Method: **DP**

Collection Date: 2/3/99
Collection Time: 1114

Start Depth: 0'
End Depth: 6"

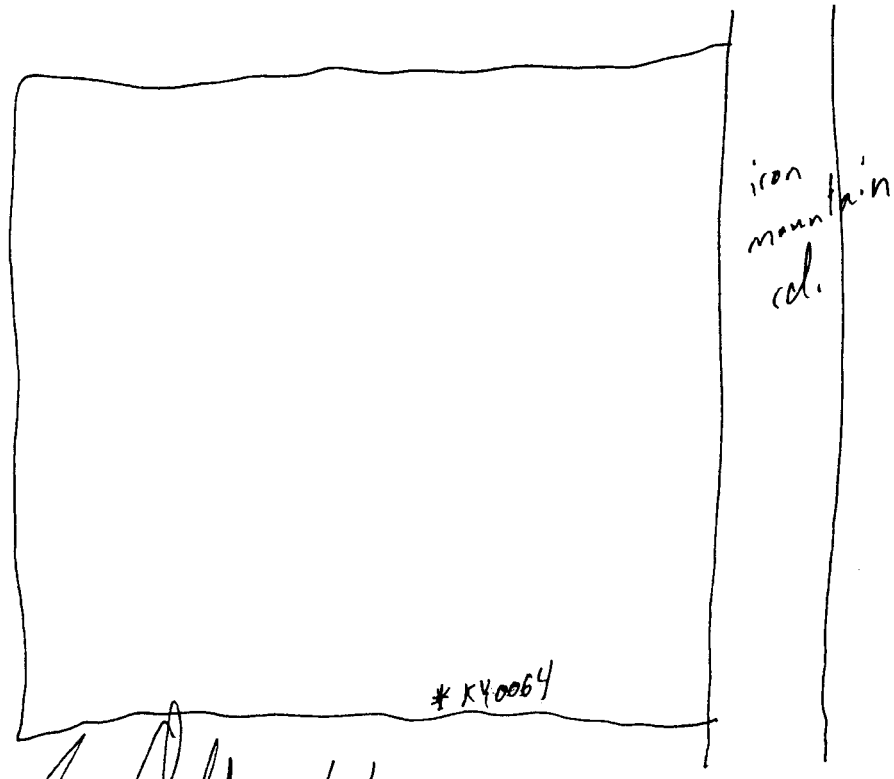
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS59**

Sample Number: **KY0065**

Sample Name: **PPMP-122-SS59-SS-KY0065-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 1409

Start Depth: 0'

End Depth: 6"

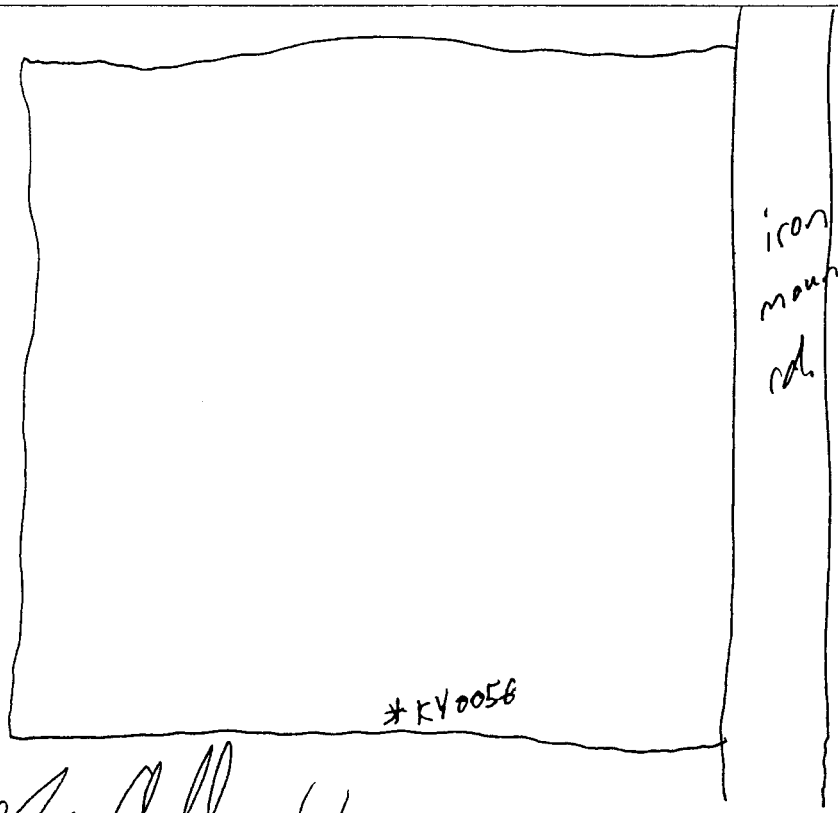
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-SS60**
Sample Number: **KY0066**
Sample Name: **PPMP-122-SS60-SS-KY0066-REG**
Sampling Method: **DP**

Collection Date: 2/3/99
Collection Time: 1521

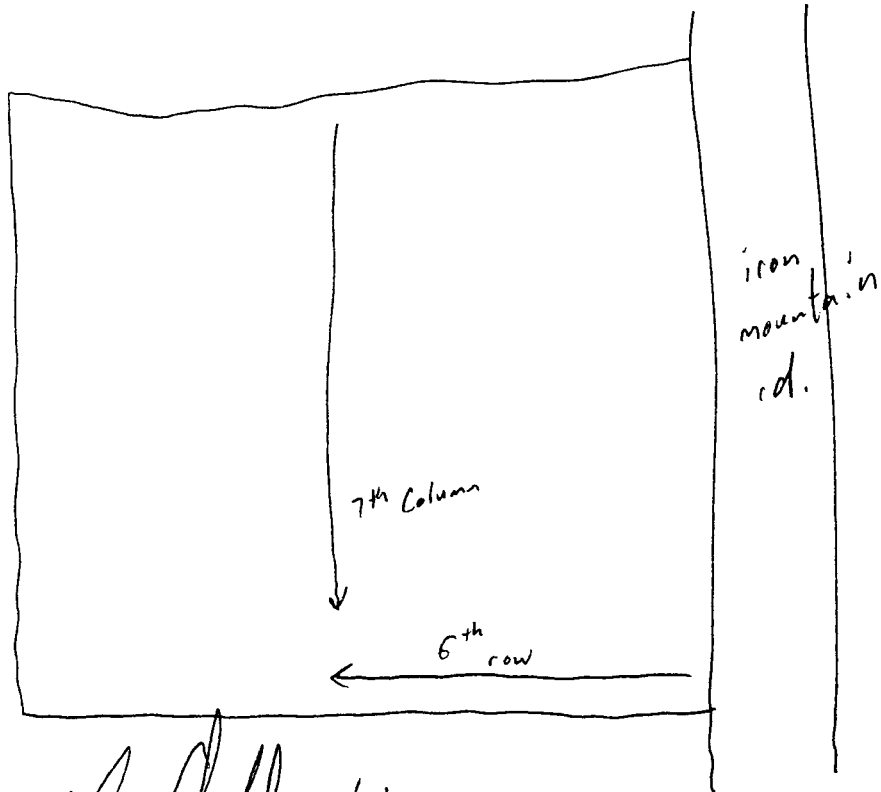
Start Depth: 0'
End Depth: 6"

Sample Team: Kevin Arnold
Tim Mathes

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments: _____

Sketch Location:



Logged BY / Date: Kevin Arnold 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: _____

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS61**

Sample Number: **KY0067**

Sample Name: **PPMP-122-SS61-SS-KY0067-REG**

Sampling Method: **DP**

Collection Date: 2/3/99

Collection Time: 17:16

Start Depth: 0'

End Depth: 6"

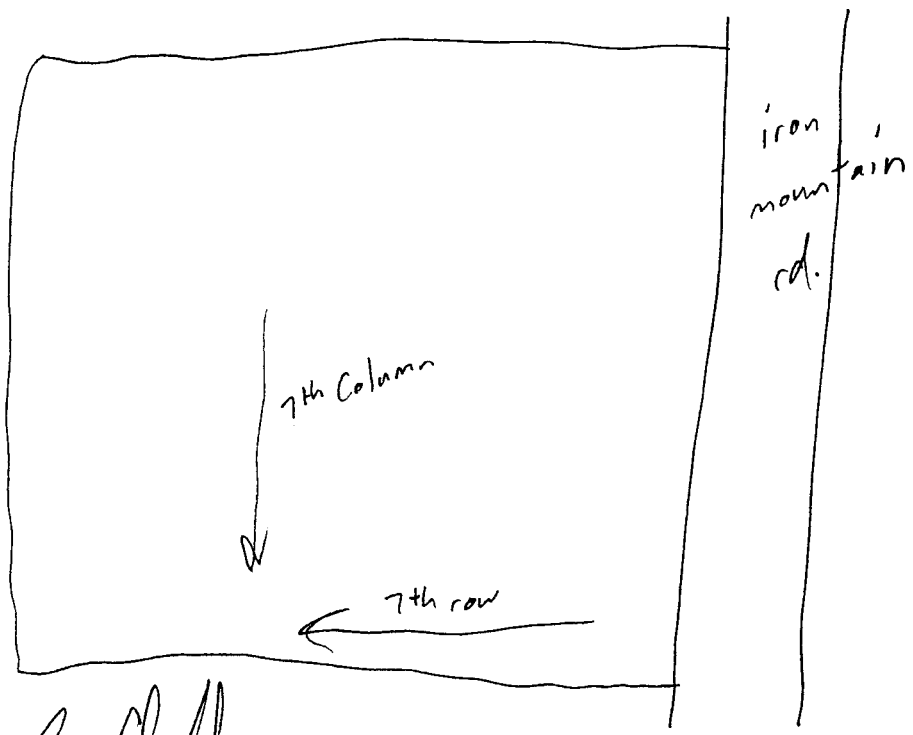
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/3/99 *Reviewed BY / Date:* _____

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-070499-QST

Site: Former Fog Oil Storage Area West of the Ske
Location Code: PPMP-122-SS62
Sample Number: KY0068
Sample Name: PPMP-122-SS62-SS-KY0068-REG
Sampling Method: DP

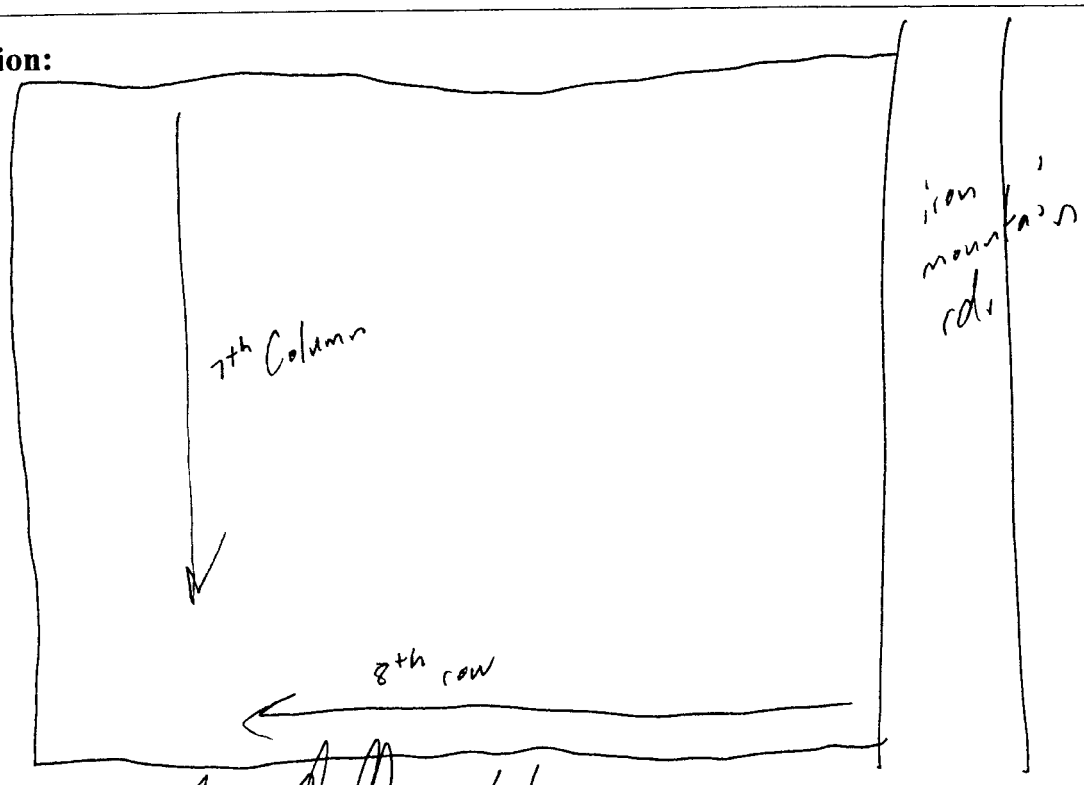
Collection Date: 2/4/99
Collection Time: 0948
Start Depth: 0'
End Depth: 6"
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: Kevin Arnold 2/4/99 *Reviewed BY / Date:*

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-020499-QST

Site: **Former Fog Oil Storage Area West of the Ske**

Location Code: **PPMP-122-SS63**

Sample Number: **KY0069**

Sample Name: **PPMP-122-SS63-SS-KY0069-REG**

Sampling Method: **DP**

Collection Date: 2/4/99

Collection Time: 1035

Start Depth: 0'

End Depth: 6"

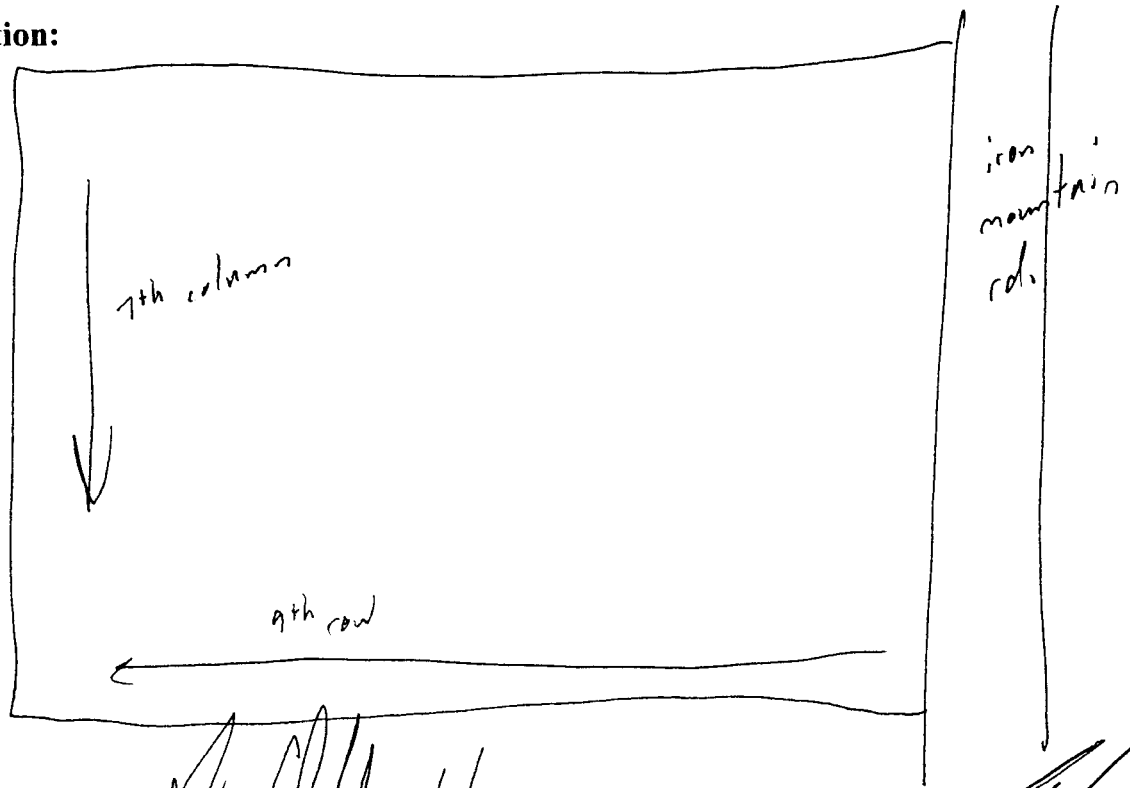
Sample Team: Kevin Arnold
Tim Mathes

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
DRO	N	A	1	4	oz	CWM

Comments:

Sketch Location:



Logged BY / Date: 2/4/99

Reviewed BY / Date: 2/5

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-021799-QSK

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-GP01**
Sample Number: **KY0001**
Sample Name: **PPMP-122-GP01-DS-KY0001-REG**
Sampling Method: **DP**

Collection Date: 2-17-99
Collection Time: 1500

Start Depth: 6'
End Depth: 8'

Sample Team: Messer

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B		1	8	oz	CWM

Comments:

Sketch Location:

Logged BY / Date: 2-17-99 *Reviewed BY / Date:* 2/18/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-021799-QSK

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-GP02**
Sample Number: **KY0002**
Sample Name: **PPMP-122-GP02-DS-KY0002-REG**
Sampling Method: **DP**

Collection Date: 2-17-99
Collection Time: 1330

Start Depth: 2'
End Depth: 5'

Sample Team: Messer

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B		1	8	oz	CWM

Comments:

Sketch Location:

Logged BY / Date: [signature] 2-17-99 *Reviewed BY / Date:* [signature] 2/18/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-021799-QSK

Site: Former Fog Oil Storage Area West of the Ske
Location Code: PPMP-122-GP03
Sample Number: KY0003
Sample Name: PPMP-122-GP03-DS-KY0003-REG
Sampling Method: DP

Collection Date: 2-17-99
Collection Time: 1130
Start Depth: 6'
End Depth: 8'
Sample Team: Messer

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_	N	B	1	8	oz	CWM

Comments:

Sketch Location:

Logged BY / Date: [signature] 2/18/99

Reviewed BY / Date: [signature] 2/18/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-021899-QSK

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-GP04**
Sample Number: **KY0004**
Sample Name: **PPMP-122-GP04-DS-KY0004-REG**
Sampling Method: **DP**

Collection Date: 2-17-99
Collection Time: 0930
Start Depth: 3'
End Depth: 6'
Sample Team: MESSER

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B		1	8	oz	CWM

Comments:

Sketch Location:

Logged BY / Date: 2/17/99
Reviewed BY / Date: 2/18/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-021799-QSK

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-GP04**
Sample Number: **KY0004-MS**
Sample Name: **PPMP-122-GP04-DS-KY0004-MS**
Sampling Method: **DP**

Collection Date: 2-17-99
Collection Time: 0930

Start Depth: 3'
End Depth: 6'

Sample Team: Messer

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B		1	8	oz	CWM

Comments:

Sketch Location:

Logged BY / Date: 2/17/99

Reviewed BY / Date: 2/18/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 22-02179-QSK

Site: **Former Fog Oil Storage Area West of the Ske**
Location Code: **PPMP-122-GP04**
Sample Number: **KY0004-MSD**
Sample Name: **PPMP-122-GP04-DS-KY0004-MSD**
Sampling Method: **DP**

Collection Date: 2-17-99
Collection Time: 0930
Start Depth: 3'
End Depth: 6'
Sample Team: Messer

Analytical Suite	Containers Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B		1	8	oz	CWM

Comments:

Sketch Location:

Logged BY / Date: 2-17-99 *Reviewed BY / Date:* 2/18/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-021799-QSK

Site: Former Fog Oil Storage Area West of the Ske
Location Code: PPMP-122-GP04
Sample Number: KY0005
Sample Name: PPMP-122-GP04-DS-KY0005-FD
Sampling Method: DP

Collection Date: 2-17-99
Collection Time: 0930
Start Depth: 3'
End Depth: 6'

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B		1	8	oz	CWM

Sample Team: Messer

Comments:

Sketch Location:

Logged BY / Date: 2-17-99

Reviewed BY / Date: 2/18/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan
Manager: Jeanie Yacoub

RFA / COC Number: 122-021799-SADL

Site: Former Fog Oil Storage Area West of the Ske
Location Code: PPMP-122-GP04
Sample Number: KY0006
Sample Name: PPMP-122-GP04-DS-KY0006-FS
Sampling Method: DP

Collection Date: 2-17-99
Collection Time: 0930
Start Depth: 3'
End Depth: 6'
Sample Team: Messer

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B		1	8	oz	CWM

Comments:

Sketch Location:

Logged BY / Date: 2-17-99 *Reviewed BY / Date:* 2/17/99

ENTERED 4/8/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-020899-QSK

Site: **Former Fog Oil Storage Area West of the Sk**

Location Code: **PPMP-122-SW-SD01**

Sample Number: **KY2001**

Sample Name: **PPMP-122-SW/SD01-SW-KY2001-REG**

Sampling Method: **GRAB**

Collection Date: 2/9/99

Collection Time: 0900

Start Depth: 0'

End Depth: ~~X~~ .5'

Sample Team: Kevin Arnold
Jason Brown

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B		1	1	L	Amb. Glass

Surface Water Parameters:	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)
	221.1	5.29	243.00	5.7	5.80	11.76

Comments:

Sketch Location:

Logged BY / Date: 2/9/99 *Reviewed BY / Date:* 2/9/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-020899-05K

Site: **Former Fog Oil Storage Area West of the Sk**

Location Code: **PPMP-122-SW-SD01**

Sample Number: **KY2002**

Sample Name: **PPMP-122-SW/SD01-SW-KY2002-FD**

Sampling Method: **GRAB**

Collection Date: 2/8/99

Collection Time: 0900

Start Depth: 0'

End Depth: .5'

Sample Team: Kevin Arnold
Jason Brown

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B	1	1		L	Amb. Glass

Surface Water Parameters:	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)
	229	5.29	243	5.7	5.80	11.76

Comments:

Sketch Location:

Logged BY / Date: 2/8/99

Reviewed BY / Date: 2/9/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

RFA / COC Number: 122-02899-SAD

Site: **Former Fog Oil Storage Area West of the Sk**

Location Code: **PPMP-122-SW-SD01**

Sample Number: **KY2003**

Sample Name: **PPMP-122-SW/SD01-SW-KY2003-FS**

Sampling Method: **GRAB**

Collection Date: 2/8/99

Collection Time: 0900

Start Depth: 0'

End Depth: .5'

Sample Team: Jason Brown

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_N	B		1	1	L	Amb. Glass

Surface Water Parameters:	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)
	229	5.29	.243	57	5.80	11.76

Comments:

Sketch Location:

Logged BY / Date: 2/8/99

Reviewed BY / Date: 2/9/99

INTERNATIONAL TECHNOLOGY CORPORATION

Sample Collection Log

Project: 774645 Fort McClellan

Manager: Jeanie Yacoub

Parcel 122

RFA / COC Number: 122-020599-05k

Site: **Former Fog Oil Storage Area West of the Sk**

Location Code: **PPMP-122-SW-SD01**

Sample Number: **KY1001**

Sample Name: **PPMP-122-SW/SD01-SD-KY1001-REG**

Sampling Method: **HA**

Collection Date: 2/9/99

Collection Time: 0900

Start Depth: ~~0~~ 0"

End Depth: ~~0~~ .5'

Sample Team: Kevin Arnold
Jason Brown

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
SEMIVOLATILES_	N	B	1	8	oz	CWM
TOC	N	C	1	4	oz	CWM
GR. SIZE	N	D	1	8	oz	CWM

Comments:

Sketch Location:

Logged BY / Date: 2/8/99

Reviewed BY / Date: 2/9/99

ANALYSIS REQUEST/CHAIN-OF-CUSTODY RECORDS

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020299-QST

Project Number: 774645

Project Name: Fort McClellan

Sample Coordinator: John W. Andrew

Turnaround Time: 7 days

Samples Shipment Date: 02-FEB-99

Lab Destination: QUANTERRA - TAMPA

Lab Contact: Michelle Lersch

Project Contact: Randy McBride

Carrier/Waybill No.: Fed Ex/7901 9899 3310

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions: 7 day TAT

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal:
Return to Client ☐ Disposal by Lab ☐ Archive (mos.)

1. Relinquished By (Signature/Affiliation) IT Corp	Date: 02/02/99 Time: 1645
1. Received By (Signature/Affiliation)	Date: Time:
2. Relinquished By (Signature/Affiliation)	Date: Time:
2. Received By (Signature/Affiliation)	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:
3. Received By (Signature/Affiliation)	Date: Time:

Comments: Please FAX sample results to John Andrew within seven days at telephone # 256-848-3551.

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0007	PPMP-122-SS01-SS-KY0007-REG	02-FEB-99	10:26	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0008	PPMP-122-SS02-SS-KY0008-REG	02-FEB-99	10:33	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0009	PPMP-122-SS03-SS-KY0009-REG	02-FEB-99	10:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0010	PPMP-122-SS04-SS-KY0010-REG	02-FEB-99	10:47	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0011	PPMP-122-SS05-SS-KY0011-REG	02-FEB-99	10:52	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0012	PPMP-122-SS06-SS-KY0012-REG	02-FEB-99	10:57	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0013	PPMP-122-SS07-SS-KY0013-REG	02-FEB-99	11:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0014	PPMP-122-SS08-SS-KY0014-REG	02-FEB-99	11:13	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020299-QST

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0015	PPMP-122-SS09-SS-KY0015-REG	02-FEB-99	11:20	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0016	PPMP-122-SS10-SS-KY0016-REG	02-FEB-99	13:53	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0017	PPMP-122-SS11-SS-KY0017-REG	02-FEB-99	15:20	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0025	PPMP-122-SS19-SS-KY0025-REG	02-FEB-99	14:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0026	PPMP-122-SS20-SS-KY0026-REG	02-FEB-99	15:27	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0034	PPMP-122-SS28-SS-KY0034-REG	02-FEB-99	14:14	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0035	PPMP-122-SS29-SS-KY0035-REG	02-FEB-99	15:32	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0043	PPMP-122-SS37-SS-KY0043-REG	02-FEB-99	14:25	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0044	PPMP-122-SS38-SS-KY0044-REG	02-FEB-99	15:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0052	PPMP-122-SS46-SS-KY0052-REG	02-FEB-99	14:35	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0053	PPMP-122-SS47-SS-KY0053-REG	02-FEB-99	16:04	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0061	PPMP-122-SS55-SS-KY0061-REG	02-FEB-99	15:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020399-QST

Project Number: 774645
Project Name: Fort McClellan
Sample Coordinator: John W. Andrew
Turnaround Time: 7 day

Samples Shipment Date: 03-FEB-99
Lab Destination: QUANTERRA - TAMPA
Lab Contact: Michelle Lersch
Project Contact: Randy McBride
Carrier/Waybill No.: Fed Ex/ 7916 8110 4220

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions: 7 day TAT

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal:
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

1. Relinquished By (Signature/Affiliation) IT Corp	Date: 02/03/99 Time: 1430
1. Received By (Signature/Affiliation)	Date: Time:
2. Relinquished By (Signature/Affiliation)	Date: Time:
2. Received By (Signature/Affiliation)	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:
3. Received By (Signature/Affiliation)	Date: Time:

Comments: Please report results to John Andrew within seven days to (FAX) 256-848-3551.

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0018	PPMP-122-SS12-SS-KY0018-REG	03-FEB-99	08:50	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0019	PPMP-122-SS13-SS-KY0019-REG	03-FEB-99	10:26	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0027	PPMP-122-SS21-SS-KY0027-REG	03-FEB-99	08:59	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0028	PPMP-122-SS22-SS-KY0028-REG	03-FEB-99	10:38	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0036	PPMP-122-SS30-SS-KY0036-REG	03-FEB-99	09:08	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0037	PPMP-122-SS31-SS-KY0037-REG	03-FEB-99	10:47	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0045	PPMP-122-SS39-SS-KY0045-REG	03-FEB-99	09:16	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0046	PPMP-122-SS40-SS-KY0046-REG	03-FEB-99	10:56	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020399-QST

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0054	PPMP-122-SS48-SS-KY0054-REG	03-FEB-99	09:23	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0055	PPMP-122-SS49-SS-KY0055-REG	03-FEB-99	11:07	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0062	PPMP-122-SS56-SS-KY0062-REG	03-FEB-99	08:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0063	PPMP-122-SS57-SS-KY0063-REG	03-FEB-99	09:31	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0064	PPMP-122-SS58-SS-KY0064-REG	03-FEB-99	11:14	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020399-QEST

Project Number: 774645
Project Name: Fort McClellan
Sample Coordinator: John W. Andrew
Turnaround Time: 7days

Samples Shipment Date: 04-FEB-99
Lab Destination: QUANTERRA - TAMPA
Lab Contact: Michelle Lersch
Project Contact: Randy McBride
Carrier/Waybill No.: Fed Ex/7902 0015 1658

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions: FAX sample results to John Andrew at 256-848-3551 within 7 days.

Possible Hazard Indentification:	Sample Disposal:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒	Return to Client ☐ Disposal by Lab ☒ Archive (mos.)
1. Relinquished By (Signature/Affiliation) IT Corp Date: 02/04/99 Time: 1430	1. Received By (Signature/Affiliation) Date: Time:
2. Relinquished By (Signature/Affiliation) Date: Time:	2. Received By (Signature/Affiliation) Date: Time:
3. Relinquished By (Signature/Affiliation) Date: Time:	3. Received By (Signature/Affiliation) Date: Time:

Comments: Seven day turnaround time!!

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0020	PPMP-122-SS14-SS-KY0020-REG	03-FEB-99	13:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0021	PPMP-122-SS15-SS-KY0021-REG	03-FEB-99	14:39	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0022	PPMP-122-SS16-SS-KY0022-REG	03-FEB-99	16:35	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0029	PPMP-122-SS23-SS-KY0029-REG	03-FEB-99	13:48	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0030	PPMP-122-SS24-SS-KY0030-REG	03-FEB-99	14:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0031	PPMP-122-SS25-SS-KY0031-REG	03-FEB-99	16:43	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0038	PPMP-122-SS32-SS-KY0038-REG	03-FEB-99	13:52	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0039	PPMP-122-SS33-SS-KY0039-REG	03-FEB-99	14:46	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020399-QEST

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0040	PPMP-122-SS34-SS-KY0040-REG	03-FEB-99	16:53	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0047	PPMP-122-SS41-SS-KY0047-REG	03-FEB-99	13:59	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0048	PPMP-122-SS42-SS-KY0048-REG	03-FEB-99	14:54	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0049	PPMP-122-SS43-SS-KY0049-REG	03-FEB-99	16:56	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0056	PPMP-122-SS50-SS-KY0056-REG	03-FEB-99	14:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0057	PPMP-122-SS51-SS-KY0057-REG	03-FEB-99	15:11	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0058	PPMP-122-SS52-SS-KY0058-REG	03-FEB-99	17:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0065	PPMP-122-SS59-SS-KY0065-REG	03-FEB-99	14:09	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0066	PPMP-122-SS60-SS-KY0066-REG	03-FEB-99	15:21	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0067	PPMP-122-SS61-SS-KY0067-REG	03-FEB-99	17:16	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020499-QST

Project Number: 774645

Project Name: Fort McClellan

Sample Coordinator: John W. Andrew

Turnaround Time: Normal

Samples Shipment Date: 05-FEB-99

Lab Destination: QUANTERRA - TAMPA

Lab Contact: Michelle Lersch

Project Contact: Randy McBride

Carrier/Waybill No.: Fed Ex/7902 0088 9731

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions:

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal:
Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

1. Relinquished By (Signature/Affiliation) [signature] Date: 2/5/99 Time: 1420

2. ~~Relinquished By~~ (Signature/Affiliation) Date: Time:

3. Relinquished By (Signature/Affiliation) Date: Time:

1. ~~Received By~~ (Signature/Affiliation) Date: Time:

2. ~~Received By~~ (Signature/Affiliation) Date: Time:

3. Received By (Signature/Affiliation) Carol McNulty Date: 2/6/99 Time: 1000

Comments:

	Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
✓	KY0023	PPMP-122-SS17-SS-KY0023-REG	04-FEB-99	09:14	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
✓	KY0024	PPMP-122-SS18-SS-KY0024-REG	04-FEB-99	09:52	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
✓	KY0032	PPMP-122-SS26-SS-KY0032-REG	04-FEB-99	09:19	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
✓	KY0033	PPMP-122-SS27-SS-KY0033-REG	04-FEB-99	10:06	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
✓	KY0041	PPMP-122-SS35-SS-KY0041-REG	04-FEB-99	09:24	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
✓	KY0042	PPMP-122-SS36-SS-KY0042-REG	04-FEB-99	10:17	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
✓	KY0050	PPMP-122-SS44-SS-KY0050-REG	04-FEB-99	09:30	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
✓	KY0051	PPMP-122-SS45-SS-KY0051-REG	04-FEB-99	10:23	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020499-QST

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
√	KY0059	PPMP-122-SS53-SS-KY0059-REG	04-FEB-99	09:36	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
√	KY0060	PPMP-122-SS54-SS-KY0060-REG	04-FEB-99	10:29	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
√	KY0068	PPMP-122-SS62-SS-KY0068-REG	04-FEB-99	09:48	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
√	KY0069	PPMP-122-SS63-SS-KY0069-REG	04-FEB-99	10:35	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

H9B090163

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020899-QSK

Page 1 of 1

Project Number: 774645

Project Name: Fort McClellan

Sample Coordinator: John W. Andrew

Turnaround Time: Normal

Samples Shipment Date: 09-FEB-99

Lab Destination: Quanterra Environmental Services - Knoxville

Lab Contact: John Reynolds

Project Contact: Randy McBride

Carrier/Waybill No.: Quality Express/ Courier

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions:

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal:
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

1. Relinquished By (Signature/Affiliation) IT Cur. Date: 2/9/99 Time: 0850

2. Relinquished By (Signature/Affiliation) Date: 2 9 99 Time: 1400

3. Relinquished By (Signature/Affiliation) Date: Time:

1. Received By (Signature/Affiliation) Date: 2-9-99 Time: 0830

2. Received By (Signature/Affiliation) Date: 2-9-99 Time: 14:00

3. Received By (Signature/Affiliation) Date: Time:

Comments:

Rcvd at 2°C
Custody Seals Intact
JW 2-9-99

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY1001	PPMP-122-SW-SD01-SD-KY1001-REG	08-FEB-99	09:00	8 oz CWM	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY1001	PPMP-122-SW-SD01-SD-KY1001-REG	08-FEB-99	09:00	4 oz CWM	1	None except cool to 4 C	Total Organic Carbon by 9060	N		
KY1001	PPMP-122-SW-SD01-SD-KY1001-REG	08-FEB-99	09:00	8 oz CWM	1	None Required	Grain Size by ASTM D421/D422	N		
KY2001	PPMP-122-SW-SD01-SW-KY2001-REG	08-FEB-99	09:00	1 L Amb. Glass	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY2002	PPMP-122-SW-SD01-SW-KY2002-FD	08-FEB-99	09:00	1 L Amb. Glass	1	None except cool to 4 C	Semivolatiles by 8270C	N		

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INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020899-QSK

Page 1 of 1

Project Number: 774645

Project Name: Fort McClellan

Sample Coordinator: John W. Andrew

Turnaround Time: Normal

Samples Shipment Date: 09-FEB-99

Lab Destination: Quanterra Environmental Services - Knoxville

Lab Contact: John Reynolds

Project Contact: Randy McBride

Carrier/Waybill No.: Quality Express/ Courier

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions:

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal:
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

1. Relinquished By (Signature/Affiliation) IT Corp Date: 2/9/99 Time: 0850

2. Relinquished By (Signature/Affiliation) Date: 2 9 99 Time: 1400

3. Relinquished By (Signature/Affiliation) Date: Time:

1. Received By (Signature/Affiliation) Date: 2-9-99 Time: 0830

2. Received By (Signature/Affiliation) Date: 2-9-99 Time: 1400

3. Received By (Signature/Affiliation) Date: Time:

Comments:

Rcvd at 20°C
Custody Seals Intact
JW 2-9-99

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY1001	PPMP-122-SW-SD01-SD-KY1001-REG	08-FEB-99	09:00	8 oz CWM	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY1001	PPMP-122-SW-SD01-SD-KY1001-REG	08-FEB-99	09:00	4 oz CWM	1	None except cool to 4 C	Total Organic Carbon by 9060	N		
KY1001	PPMP-122-SW-SD01-SD-KY1001-REG	08-FEB-99	09:00	8 oz CWM	1	None Required	Grain Size by ASTM D421/D422	N		
KY2001	PPMP-122-SW-SD01-SW-KY2001-REG	08-FEB-99	09:00	1 L Amb. Glass	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY2002	PPMP-122-SW-SD01-SW-KY2002-FD	08-FEB-99	09:00	1 L Amb. Glass	1	None except cool to 4 C	Semivolatiles by 8270C	N		

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INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-021799-QSK

Page 1 of 1

Project Number: 774645

Project Name: Fort McClellan

Sample Coordinator: John W. Andrew

Turnaround Time: Normal

Samples Shipment Date: 18-FEB-99

Lab Destination: Quanterra Environmental Services - Knoxville

Lab Contact: John Reynolds

Project Contact: Randy McBride

Carrier/Waybill No.: Quality Express/ Courier

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions:

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal:
Return to Client ☐ Disposal by Lab ☐ Archive (mos.)

1. Relinquished By (Signature/Affiliation) ITCorp	Date: 2/18/99 Time: 0830
2. Relinquished By (Signature/Affiliation)	Date: 2-18-99 Time: 1310
3. Relinquished By (Signature/Affiliation)	Date: Time:

1. Received By (Signature/Affiliation)	Date: 2 18 99 Time: 0830
2. Received By (Signature/Affiliation)	Date: 2-18-99 Time: 13:10
3. Received By (Signature/Affiliation)	Date: Time:

Comments:

Custody seals intact
Received at 2°C
OKD 2-18-99

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0001	PPMP-122-GP01-DS-KY0001-REG	17-FEB-99	15:00	8 oz CWM	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY0002	PPMP-122-GP02-DS-KY0002-REG	17-FEB-99	13:30	8 oz CWM	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY0003	PPMP-122-GP03-DS-KY0003-REG	17-FEB-99	11:30	8 oz CWM	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY0004	PPMP-122-GP04-DS-KY0004-REG	17-FEB-99	09:30	8 oz CWM	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY0004-MS	PPMP-122-GP04-DS-KY0004-MS-MS	17-FEB-99	09:30	8 oz CWM	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY0004-MSD	PPMP-122-GP04-DS-KY0004-MSD-MS	17-FEB-99	09:30	8 oz CWM	1	None except cool to 4 C	Semivolatiles by 8270C	N		
KY0005	PPMP-122-GP04-DS-KY0005-FD	17-FEB-99	09:30	8 oz CWM	1	None except cool to 4 C	Semivolatiles by 8270C	N		

APPENDIX B

SURFACE SOIL SCREENING RESULTS

Quanterra Incorporated
5910 Breckenridge Parkway, Suite H
Tampa, Florida 33610

813 621-0784 Telephone
813 623-6021 Fax

ANALYTICAL REPORT

PROJECT NO. 774645

Ft. McClellan

Lot #: B9B030188

Duane Nielsen

IT Corp - Ft. McClellan

QUANTERRA INCORPORATED

Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Michele H. Lersch

Michele Lersch
Project Manager

February 12, 1999

Quanterra

Report Narrative

Quanterra Lot: B9B030188 IT Project: 774645/ Ft. McClellan

Diesel Range Organics, 8015-MOD:
No QC problems or anomalies were encountered with the preparation or analysis of these samples for the Diesel Range Organics by the modified SW-846 method 8015.

Quanterra

SAMPLE SUMMARY

B9B030188

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
CQG9V	001	PPMP-122-SS01-SS-KY0007-REG	02/02/99	10:26
CQGA0	002	PPMP-122-SS02-SS-KY0008-REG	02/02/99	10:33
CQGA1	003	PPMP-122-SS03-SS-KY0009-REG	02/02/99	10:42
CQGA2	004	PPMP-122-SS04-SS-KY0010-REG	02/02/99	10:47
CQGA4	005	PPMP-122-SS05-SS-KY0011-REG	02/02/99	10:52
CQGA5	006	PPMP-122-SS06-SS-KY0012-REG	02/02/99	10:57
CQGA6	007	PPMP-122-SS07-SS-KY0013-REG	02/02/99	11:05
CQGA8	008	PPMP-122-SS08-SS-KY0014-REG	02/02/99	11:13
CQGA9	009	PPMP-122-SS09-SS-KY0015-REG	02/02/99	11:20
CQGAE	010	PPMP-122-SS10-SS-KY0016-REG	02/02/99	13:53
CQGAF	011	PPMP-122-SS11-SS-KY0017-REG	02/02/99	15:20
CQGAH	012	PPMP-122-SS19-SS-KY0025-REG	02/02/99	14:05
CQGAM	013	PPMP-122-SS20-SS-KY0026-REG	02/02/99	15:27
CQGAN	014	PPMP-122-SS28-SS-KY0034-REG	02/02/99	14:14
CQGC3	015	PPMP-122-SS29-SS-KY0035-REG	02/02/99	15:32
CQGC9	016	PPMP-122-SS37-SS-KY0043-REG	02/02/99	14:25
CQGCC	017	PPMP-122-SS38-SS-KY0044-REG	02/02/99	15:42
CQGCF	018	PPMP-122-SS46-SS-KY0052-REG	02/02/99	14:35
CQGCH	019	PPMP-122-SS47-SS-KY0053-REG	02/02/99	16:04
CQGCK	020	PPMP-122-SS55-SS-KY0061-REG	02/02/99	15:05

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Quanterra

METHODS SUMMARY

B9B030188

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Extractable Petroleum Hydrocarbons	SW846 8015 MOD	SW846 3550
Total Residue as Percent Solids	MCAWW 160.3 MOD	MCAWW 160.3 MOD

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

Quanterra

EXECUTIVE SUMMARY - Detection Highlights

B9B030188

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PPMP-122-SS01-SS-KY0007-REG 02/02/99 10:26 001				
Diesel Range Organics	15	12	mg/kg	SW846 8015 MOD
Percent Solids	86.7	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS02-SS-KY0008-REG 02/02/99 10:33 002				
Diesel Range Organics	14	12	mg/kg	SW846 8015 MOD
Percent Solids	85.3	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS03-SS-KY0009-REG 02/02/99 10:42 003				
Diesel Range Organics	36	12	mg/kg	SW846 8015 MOD
Percent Solids	82.7	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS04-SS-KY0010-REG 02/02/99 10:47 004				
Diesel Range Organics	26	12	mg/kg	SW846 8015 MOD
Percent Solids	80.2	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS05-SS-KY0011-REG 02/02/99 10:52 005				
Diesel Range Organics	33	12	mg/kg	SW846 8015 MOD
Percent Solids	81.5	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS06-SS-KY0012-REG 02/02/99 10:57 006				
Diesel Range Organics	28	13	mg/kg	SW846 8015 MOD
Percent Solids	79.8	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS07-SS-KY0013-REG 02/02/99 11:05 007				
Diesel Range Organics	45	12	mg/kg	SW846 8015 MOD
Percent Solids	80.4	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS08-SS-KY0014-REG 02/02/99 11:13 008				
Diesel Range Organics	27	13	mg/kg	SW846 8015 MOD
Percent Solids	77.6	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS09-SS-KY0015-REG 02/02/99 11:20 009				
Diesel Range Organics	15	12	mg/kg	SW846 8015 MOD
Percent Solids	84.3	0.10	%	MCAWW 160.3 MOD

(Continued on next page)

Quanterra

EXECUTIVE SUMMARY - Detection Highlights

B9B030188

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PPMP-122-SS10-SS-KY0016-REG 02/02/99 13:53 010				
Diesel Range Organics	27	12	mg/kg	SW846 8015 MOD
Percent Solids	86.7	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS11-SS-KY0017-REG 02/02/99 15:20 011				
Diesel Range Organics	76	12	mg/kg	SW846 8015 MOD
Percent Solids	81.6	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS19-SS-KY0025-REG 02/02/99 14:05 012				
Diesel Range Organics	27	11	mg/kg	SW846 8015 MOD
Percent Solids	89.5	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS20-SS-KY0026-REG 02/02/99 15:27 013				
Diesel Range Organics	33	13	mg/kg	SW846 8015 MOD
Percent Solids	75.8	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS28-SS-KY0034-REG 02/02/99 14:14 014				
Percent Solids	88.2	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS29-SS-KY0035-REG 02/02/99 15:32 015				
Diesel Range Organics	52	13	mg/kg	SW846 8015 MOD
Percent Solids	75.5	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS37-SS-KY0043-REG 02/02/99 14:25 016				
Diesel Range Organics	21	12	mg/kg	SW846 8015 MOD
Percent Solids	85.5	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS38-SS-KY0044-REG 02/02/99 15:42 017				
Diesel Range Organics	100	14	mg/kg	SW846 8015 MOD
Percent Solids	70.0	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS46-SS-KY0052-REG 02/02/99 14:35 018				
Diesel Range Organics	47	23	mg/kg	SW846 8015 MOD
Percent Solids	88.2	0.10	%	MCAWW 160.3 MOD

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Quanterra

EXECUTIVE SUMMARY - Detection Highlights

B9B030188

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PPMP-122-SS47-SS-KY0053-REG 02/02/99 16:04 019				
Diesel Range Organics	73	14	mg/kg	SW846 8015 MOD
Percent Solids	70.8	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS55-SS-KY0061-REG 02/02/99 15:05 020				
Diesel Range Organics	41	11	mg/kg	SW846 8015 MOD
Percent Solids	88.1	0.10	%	MCAWW 160.3 MOD

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS01-SS-KY0007-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-001	**Work Order #...:**	CQG9V102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	13	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**15**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	143	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS02-SS-KY0008-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-002	**Work Order #...:**	CQGA0102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	15	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**14**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	85	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS03-SS-KY0009-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-003	**Work Order #...:**	CQGA1102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	17	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**36**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	73	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS04-SS-KY0010-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-004	**Work Order #...:**	CQGA2102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	20	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**26**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	69	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS05-SS-KY0011-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-005	**Work Order #...:**	CQGA4102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**33**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	58	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS06-SS-KY0012-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-006	**Work Order #...:**	CQGA5102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	20	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**28**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	72	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS07-SS-KY0013-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-007	**Work Order #...:**	CQGA6102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	20	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**45**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	78	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS08-SS-KY0014-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-008	**Work Order #...:**	CQGA8102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	22	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**27**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	68	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS09-SS-KY0015-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-009	**Work Order #...:**	CQGA9102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	16	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**15**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	96	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS10-SS-KY0016-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-010	**Work Order #...:**	CQGAE102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	13	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**27**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	84	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS11-SS-KY0017-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-011	**Work Order #...:**	CQGAF102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**76**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	65	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS19-SS-KY0025-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-012	**Work Order #...:**	CQGAH102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	11	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**27**	**11**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	60	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS20-SS-KY0026-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-013	**Work Order #...:**	CQGAM102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	24	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**33**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	64	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS28-SS-KY0034-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-014	**Work Order #...:**	CQGAN102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	12	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	11	mg/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	59	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS29-SS-KY0035-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-015	**Work Order #...:**	CQGC3102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	25	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**52**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	67	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS37-SS-KY0043-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-016	**Work Order #...:**	CQGC9102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	15	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**21**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	54	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS38-SS-KY0044-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-017	**Work Order #...:**	CQGCC102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	30	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**100**	**14**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	64	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS46-SS-KY0052-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-018	**Work Order #...:**	CQGCF102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9035376				
Dilution Factor:	2	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	12	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**47**	**23**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	66	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS47-SS-KY0053-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-019	**Work Order #...:**	CQGCH102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	29	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**73**	**14**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	63	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS55-SS-KY0061-REG

GC Semivolatiles

Lot-Sample #...:	B9B030188-020	**Work Order #...:**	CQGCK102	**Matrix.....:**	SOLID
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9035376				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	12	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**41**	**11**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	53	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: B9B030188 **Work Order #...:** CQHTC101 **Matrix.....:** SOLID
MB Lot-Sample #: B9B040000-376

Prep Date.....: 02/04/99 **Final Wgt/Vol..:** 1 mL
Analysis Date..: 02/09/99 **Prep Batch #...:** 9035376
Dilution Factor: 1 **Initial Wgt/Vol:** 30 g

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diesel Range Organics	ND	10	mg/kg	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	95	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: B9B030188 **Work Order #...:** CQHTC102 **Matrix.....:** SOLID
LCS Lot-Sample#: B9B040000-376
Prep Date.....: 02/04/99 **Analysis Date..:** 02/09/99
Prep Batch #...: 9035376
Dilution Factor: 1 **Final Wgt/Vol..:** 1 mL
Initial Wgt/Vol: 30 g

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Diesel Range Organics	**75**	**(38 - 115)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	86	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	B9B030188	**Work Order #...:**	CQGCF103-MS	**Matrix.....:**	SOLID
MS Lot-Sample #:	B9B030188-018		CQGCF104-MSD		
Date Sampled...:	02/02/99	**Date Received..:**	02/03/99		
Prep Date.....:	02/04/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9035376				
Dilution Factor:	2	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	12				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Diesel Range Organics	**84**	**(21 - 122)**			**SW846 8015 MOD**
	97	**(21 - 122)**	**8.5**	**(0-44)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	72	(31 - 144)
	76	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

Quanterra
Environmental Services

TAMPA LABORATORY
CONDITION UPON RECEIPT FORM

Client: IT
Date Received: 2/3/99
Received By: SVB

Project Name: Fort McClellan
Lot Number: B9B030188
CUR Completed By: _____

Cooler/Shipping Information:

Type: Cooler YC Box ____ Other ____/_____

Cooler ID/Track #					
Temp (Celsius)	4°C				
Cooler ID/Track #					
Temp (Celsius)					

Any "NO" responses or discrepancies should be explained in the "Comments" section below.

CHECKLIST	YES	NO	NA
1. Were custody seals on shipping container(s) intact? Check "NA" if hand delivered. If "Yes," check one: CUSTODY SEAL SAVED ☒ UNABLE TO SAVE CUSTODY SEAL ☐	✓		
2. Were custody papers properly included with samples?	✓		
3. Were custody papers properly filled out (ink, signed, match labels)?	✓		
4. Did all bottles arrive in good condition (unbroken)?	✓		
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	✓		
6. Were correct bottles used for the tests indicated?	✓		
7. Were proper sample preservation techniques indicated?	✓		
. Were samples received within holding times? If "No," NCM required.	✓		
9. Were all VOA bottles checked for the presence of air bubbles? If air bubbles were found, indicate in comment section.	✓		
10. Were samples in direct contact with wet ice? If "No," check one: **NO ICE** ☐ **BLUE ICE** ☐	✓		
11. Were the samples received with a temperature blank? **RECORD TEMPERATURE ABOVE** If "No," check one: UNABLE TO DETERMINE TEMP ☐ TEMP TAKEN FROM ICE/WATER NEAR SAMPLES ☐	✓		
12. Were sample pHs checked and recorded by S.R. (see back for Page 2 - Sample pH)? *NOTE: TOC and VOA samples are checked by laboratory analysts. If response is "Not Inspected," then a pH check is not required/performed by Sample Receiving and Page 2 is not applicable.*	✓		Not inspected - Page 2 not completed ☐
13. Were samples accepted into the laboratory?	✓		

Comments:

Complete if applicable: NCM#: _____ Check one: Notified PM by E-mail ☐ Hard Copy ☐

Project Manager initials/date reviewed: MR 2/4/99

Corrective Action: _____

Corrective Action completed by/date: _____

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020299-QSK T MY 2/4/99

Project Number: 774645

Project Name: Fort McClellan

Sample Coordinator: John W. Andrew

Turnaround Time: ~~NORB~~ 7 DAY

Samples Shipment Date: 02-FEB-99

Lab Destination: Quanterra Environmental Services - ~~Knoxville~~ TAMPA

Lab Contact: ~~John Reynolds~~ Michele Lersch

Project Contact: Randy McBride

Carrier/Waybill No.: Fed Ex/ 7901-9899-3310

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions: 7 day TAT

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal:
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

1. Relinquished By (Signature/Affiliation) IT Corp	Date: 02/02/99 Time: 1545
2. Relinquished By (Signature/Affiliation)	~~Date:~~ Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:
1. ~~Received By~~ (Signature/Affiliation)	Date: Time:
2. ~~Received By~~ (Signature/Affiliation)	Date: Time:
3. Received By (Signature/Affiliation) Quanterra Tampa	Date: 2/03/99 Time: 1000

Comments: Please report results to John Andrew at FAX # 256-848-3551 within seven days.

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0007	PPMP-122-SS01-SS-KY0007-REG	02-FEB-99	10:26	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0008	PPMP-122-SS02-SS-KY0008-REG	02-FEB-99	10:33	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0009	PPMP-122-SS03-SS-KY0009-REG	02-FEB-99	10:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0010	PPMP-122-SS04-SS-KY0010-REG	02-FEB-99	10:47	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0011	PPMP-122-SS05-SS-KY0011-REG	02-FEB-99	10:52	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0012	PPMP-122-SS06-SS-KY0012-REG	02-FEB-99	10:57	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0013	PPMP-122-SS07-SS-KY0013-REG	02-FEB-99	11:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0014	PPMP-122-SS08-SS-KY0014-REG	02-FEB-99	11:13	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020299-QSK

T

MX 2/4/99

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0015	PPMP-122-SS09-SS-KY0015-REG	02-FEB-99	11:20	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0016	PPMP-122-SS10-SS-KY0016-REG	02-FEB-99	13:53	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0017	PPMP-122-SS11-SS-KY0017-REG	02-FEB-99	15:20	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0025	PPMP-122-SS19-SS-KY0025-REG	02-FEB-99	14:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0026	PPMP-122-SS20-SS-KY0026-REG	02-FEB-99	15:27	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0034	PPMP-122-SS28-SS-KY0034-REG	02-FEB-99	14:14	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0035	PPMP-122-SS29-SS-KY0035-REG	02-FEB-99	15:32	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0043	PPMP-122-SS37-SS-KY0043-REG	02-FEB-99	14:25	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0044	PPMP-122-SS38-SS-KY0044-REG	02-FEB-99	15:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0052	PPMP-122-SS46-SS-KY0052-REG	02-FEB-99	14:35	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0053	PPMP-122-SS47-SS-KY0053-REG	02-FEB-99	16:04	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0061	PPMP-122-SS55-SS-KY0061-REG	02-FEB-99	15:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

Quanterra Incorporated
5910 Breckenridge Parkway, Suite H
Tampa, Florida 33610

813 621-0784 Telephone
813 623-6021 Fax

ANALYTICAL REPORT

PROJECT NO. 774645

Ft. McClellan

Lot #: B9B040175

Duane Nielsen

IT Corp - Ft. McClellan

QUANTERRA INCORPORATED

Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Michele H. Lersch

Michele Lersch
Project Manager

February 12, 1999

Quanterra

Report Narrative

Quanterra Lot: B9B040175 IT Project: 774645/ Ft. McClellan

Diesel Range Organics, 8015-MOD:
No QC problems or anomalies were encountered with the preparation or analysis of these samples for the Diesel Range Organics by the modified SW-846 method 8015.

Quanterra

SAMPLE SUMMARY

B9B040175

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
CQH8Q	001	PPMP-122-SS12-SS-KY0018-REG	02/03/99	08:50
CQH8R	002	PPMP-122-SS12-SS-KY0019-REG	02/03/99	10:26
CQH8T	003	PPMP-122-SS12-SS-KY0027-REG	02/03/99	08:59
CQH8V	004	PPMP-122-SS12-SS-KY0028-REG	02/03/99	10:38
CQH8X	005	PPMP-122-SS12-SS-KY0036-REG	02/03/99	09:08
CQH90	006	PPMP-122-SS12-SS-KY0037-REG	02/03/99	10:47
CQH91	007	PPMP-122-SS12-SS-KY0045-REG	02/03/99	09:16
CQH93	008	PPMP-122-SS12-SS-KY0046-REG	02/03/99	10:56
CQH95	009	PPMP-122-SS12-SS-KY0054-REG	02/03/99	09:23
CQH97	010	PPMP-122-SS12-SS-KY0055-REG	02/03/99	11:07
CQH98	011	PPMP-122-SS12-SS-KY0062-REG	02/03/99	08:42
CQH9A	012	PPMP-122-SS12-SS-KY0063-REG	02/03/99	09:31
CQH9C	013	PPMP-122-SS12-SS-KY0064-REG	02/03/99	11:14

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Quanterra

METHODS SUMMARY

B9B040175

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Extractable Petroleum Hydrocarbons	SW846 8015 MOD	SW846 3550
Total Residue as Percent Solids	MCAWW 160.3 MOD	MCAWW 160.3 MOD

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

Quanterra

EXECUTIVE SUMMARY - Detection Highlights

B9B040175

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PPMP-122-SS12-SS-KY0018-REG 02/03/99 08:50 001				
Diesel Range Organics	14	12	mg/kg	SW846 8015 MOD
Percent Solids	85.6	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0019-REG 02/03/99 10:26 002				
Diesel Range Organics	19	12	mg/kg	SW846 8015 MOD
Percent Solids	83.7	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0027-REG 02/03/99 08:59 003				
Diesel Range Organics	21	12	mg/kg	SW846 8015 MOD
Percent Solids	82.0	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0028-REG 02/03/99 10:38 004				
Diesel Range Organics	23	12	mg/kg	SW846 8015 MOD
Percent Solids	80.4	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0036-REG 02/03/99 09:08 005				
Diesel Range Organics	56	13	mg/kg	SW846 8015 MOD
Percent Solids	78.9	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0037-REG 02/03/99 10:47 006				
Diesel Range Organics	13	12	mg/kg	SW846 8015 MOD
Percent Solids	81.4	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0045-REG 02/03/99 09:16 007				
Diesel Range Organics	38	13	mg/kg	SW846 8015 MOD
Percent Solids	75.5	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0046-REG 02/03/99 10:56 008				
Diesel Range Organics	57	13	mg/kg	SW846 8015 MOD
Percent Solids	78.8	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0054-REG 02/03/99 09:23 009				
Diesel Range Organics	59	13	mg/kg	SW846 8015 MOD
Percent Solids	79.9	0.10	%	MCAWW 160.3 MOD

(Continued on next page)

Quanterra

EXECUTIVE SUMMARY - Detection Highlights

B9B040175

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PPMP-122-SS12-SS-KY0055-REG 02/03/99 11:07 010				
Diesel Range Organics	48	13	mg/kg	SW846 8015 MOD
Percent Solids	74.6	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0062-REG 02/03/99 08:42 011				
Diesel Range Organics	26	13	mg/kg	SW846 8015 MOD
Percent Solids	79.1	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0063-REG 02/03/99 09:31 012				
Diesel Range Organics	28	13	mg/kg	SW846 8015 MOD
Percent Solids	75.1	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS12-SS-KY0064-REG 02/03/99 11:14 013				
Diesel Range Organics	28	14	mg/kg	SW846 8015 MOD
Percent Solids	73.4	0.10	%	MCAWW 160.3 MOD

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0018-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-001	**Work Order #...:**	CQH8Q102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/09/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	14	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**14**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	55	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0019-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-002	**Work Order #...:**	CQH8R102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/09/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	16	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**19**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	56	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0027-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-003	**Work Order #...:**	CQH8T102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/09/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**21**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	56	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0028-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-004	**Work Order #...:**	CQH8V102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/09/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	20	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**23**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	50	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0036-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-005	**Work Order #...:**	CQH8X102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/09/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	21	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**56**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	47	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0037-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-006	**Work Order #...:**	CQH90102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/09/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	19	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**13**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	47	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0045-REG

GC Semivolatiles

Lot-Sample #...: B9B040175-007	**Work Order #...:** CQH91102	**Matrix.....:** SOLID
Date Sampled...: 02/03/99	**Date Received..:** 02/04/99	
Prep Date.....: 02/05/99	**Analysis Date..:** 02/11/99	
Prep Batch #...: 9036341		
Dilution Factor: 1	**Initial Wgt/Vol:** 30 g	**Final Wgt/Vol..:** 1 mL
% Moisture.....: 24	**Method.....:** SW846 8015 MOD	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**38**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	63	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0046-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-008	**Work Order #...:**	CQH93102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	21	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**57**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	48	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0054-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-009	**Work Order #...:**	CQH95102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	20	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**59**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	58	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0055-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-010	**Work Order #...:**	CQH97102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	25	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**48**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	54	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0062-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-011	**Work Order #...:**	CQH98102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	21	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**26**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	60	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0063-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-012	**Work Order #...:**	CQH9A102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	25	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**28**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	57	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS12-SS-KY0064-REG

GC Semivolatiles

Lot-Sample #...:	B9B040175-013	**Work Order #...:**	CQH9C102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	27	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**28**	**14**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	55	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: B9B040175 **Work Order #...:** CQK6R101 **Matrix.....:** SOLID
MB Lot-Sample #: B9B050000-341

Prep Date.....: 02/05/99 **Final Wgt/Vol..:** 1 mL
Analysis Date..: 02/09/99 **Prep Batch #...:** 9036341
Dilution Factor: 1 **Initial Wgt/Vol:** 30 g

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diesel Range Organics	ND	10	mg/kg	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	98	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: B9B040175 **Work Order #...:** CQK6R102 **Matrix.....:** SOLID
LCS Lot-Sample#: B9B050000-341
Prep Date.....: 02/05/99 **Analysis Date..:** 02/09/99
Prep Batch #...: 9036341
Dilution Factor: 1 **Final Wgt/Vol..:** 1 mL
Initial Wgt/Vol: 30 g

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Diesel Range Organics	**73**	**(38 - 115)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	99	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	B9B040175	**Work Order #...:**	CQH8Q104-MS	**Matrix.....:**	SOLID
MS Lot-Sample #:	B9B040175-001		CQH8Q105-MSD		
Date Sampled...:	02/03/99	**Date Received..:**	02/04/99		
Prep Date.....:	02/05/99	**Analysis Date..:**	02/09/99		
Prep Batch #...:	9036341				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	14				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Diesel Range Organics	**64**	**(21 - 122)**			**SW846 8015 MOD**
	85	**(21 - 122)**	**23**	**(0-44)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	45	(31 - 144)
	47	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

ults and reporting limits have been adjusted for dry weight.

Quanterra
Environmental Services

TAMPA LABORATORY
CONDITION UPON RECEIPT FORM

Client: LT **Project Name:** Fort McClellan
Date Received: 2-4-99 **Lot Number:** B9B040175
Received By: Vit Masek **CUR Completed By:** Vit Masek

Cooler/Shipping Information:

Type: Cooler Y Box ___ Other ___/___

Cooler ID/Track #					
Temp (Celsius)	4°				
Cooler ID/Track #					
Temp (Celsius)					

Any "NO" responses or discrepancies should be explained in the "Comments" section below.

CHECKLIST	YES	NO	NA
1. Were custody seals on shipping container(s) intact? Check "NA" if hand delivered. If "Yes," check one: CUSTODY SEAL SAVED ☐ UNABLE TO SAVE CUSTODY SEAL ☐	—		
2. Were custody papers properly included with samples?	—		
3. Were custody papers properly filled out (ink, signed, match labels)?	—		
4. Did all bottles arrive in good condition (unbroken)?	—		
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	—		
6. Were correct bottles used for the tests indicated?	—		
7. Were proper sample preservation techniques indicated?	—		
8. Were samples received within holding times? If "No," NCM required.	—		
9. Were all VOA bottles checked for the presence of air bubbles? If air bubbles were found, indicate in comment section.			—
10. Were samples in direct contact with wet ice? If "No," check one: **NO ICE** ☐ **BLUE ICE** ☐	—		
11. Were the samples received with a temperature blank? **RECORD TEMPERATURE ABOVE** If "No," check one: UNABLE TO DETERMINE TEMP ☐ TEMP TAKEN FROM ICE/WATER NEAR SAMPLES ☐	—		
12. Were sample pHs checked and recorded by S.R. (see back for Page 2 - Sample pH)? *NOTE: TOC and VOA samples are checked by laboratory analysts. If response is "Not Inspected," then a pH check is not required/performed by Sample Receiving and Page 2 is not applicable.*			Not inspected - Page 2 not completed ☐
13. Were samples accepted into the laboratory?	✓		

Comments:

Complete if applicable: NCM#: ___ Check one: Notified PM by E-mail ☐ Hard Copy ☐

Project Manager initials/date reviewed: MK 2/5/99

Corrective Action: ___

Corrective Action completed by/date: ___

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020399-QST

Project Number: 774645
Project Name: Fort McClellan
Sample Coordinator: John W. Andrew
Turnaround Time: 7 day

Samples Shipment Date: 03-FEB-99
Lab Destination: QUANTERRA - TAMPA
Lab Contact: Michelle Lersch
Project Contact: Randy McBride
Carrier/Waybill No.: Fed Ex/ 7916 8110 4220

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions: 7 day TAT

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal:
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

1. Relinquished By (Signature/Affiliation) IT Corp	Date: 02/03/99 Time: 1430
1. Received By (Signature/Affiliation)	Date: Time:
2. Relinquished By (Signature/Affiliation)	Date: Time:
2. Received By (Signature/Affiliation)	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:
3. Received By (Signature/Affiliation) Quanterra	Date: 2-4-99 Time: 10:00

Comments: Please report results to John Andrew within seven days to (FAX) 256-848-3551.

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0018	PPMP-122-SS12-SS-KY0018-REG	03-FEB-99	08:50	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0019	PPMP-122-SS13-SS-KY0019-REG	03-FEB-99	10:26	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0027	PPMP-122-SS21-SS-KY0027-REG	03-FEB-99	08:59	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0028	PPMP-122-SS22-SS-KY0028-REG	03-FEB-99	10:38	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0036	PPMP-122-SS30-SS-KY0036-REG	03-FEB-99	09:08	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0037	PPMP-122-SS31-SS-KY0037-REG	03-FEB-99	10:47	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0045	PPMP-122-SS39-SS-KY0045-REG	03-FEB-99	09:16	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0046	PPMP-122-SS40-SS-KY0046-REG	03-FEB-99	10:56	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020399-QST

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0054	PPMP-122-SS48-SS-KY0054-REG	03-FEB-99	09:23	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0055	PPMP-122-SS49-SS-KY0055-REG	03-FEB-99	11:07	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0062	PPMP-122-SS56-SS-KY0062-REG	03-FEB-99	08:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0063	PPMP-122-SS57-SS-KY0063-REG	03-FEB-99	09:31	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0064	PPMP-122-SS58-SS-KY0064-REG	03-FEB-99	11:14	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

Quanterra Incorporated
5910 Breckenridge Parkway, Suite H
Tampa, Florida 33610

813 621-0784 Telephone
813 623-6021 Fax

ANALYTICAL REPORT

PROJECT NO. 774645

Ft. McClellan

Lot #: B9B050114

Duane Nielsen

IT Corp - Ft. McClellan

QUANTERRA INCORPORATED

Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Michele H. Lersch

Michele Lersch
Project Manager

February 12, 1999

Quanterra

Report Narrative

Quanterra Lot: B9B050114 IT Project: 774645/ Ft. McClellan

Diesel Range Organics, 8015-MOD:
No QC problems or anomalies were encountered with the preparation or analysis of these samples for the Diesel Range Organics by the modified SW-846 method 8015.

Quanterra

SAMPLE SUMMARY

B9B050114

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
CQJ1E	001	PPMP-122-SS14-SS-KY0020-REG	02/03/99	13:42
CQJ1M	002	PPMP-122-SS15-SS-KY0021-REG	02/03/99	14:39
CQJ1Q	003	PPMP-122-SS16-SS-KY0022-REG	02/03/99	16:35
CQJ1T	004	PPMP-122-SS23-SS-KY0029-REG	02/03/99	13:48
CQJ1W	005	PPMP-122-SS24-SS-KY0030-REG	02/03/99	14:42
CQJ20	006	PPMP-122-SS25-SS-KY0031-REG	02/03/99	16:43
CQJ23	007	PPMP-122-SS32-SS-KY0038-REG	02/03/99	13:52
CQJ24	008	PPMP-122-SS33-SS-KY0039-REG	02/03/99	14:46
CQJ26	009	PPMP-122-SS34-SS-KY0040-REG	02/03/99	16:53
CQJ29	010	PPMP-122-SS41-SS-KY0047-REG	02/03/99	13:59
CQJ2E	011	PPMP-122-SS42-SS-KY0048-REG	02/03/99	14:54
CQJ2F	012	PPMP-122-SS43-SS-KY0049-REG	02/03/99	16:56
CQJ2G	013	PPMP-122-SS50-SS-KY0056-REG	02/03/99	14:05
CQJ2J	014	PPMP-122-SS51-SS-KY0057-REG	02/03/99	15:11
CQJ2L	015	PPMP-122-SS52-SS-KY0058-REG	02/03/99	17:05
CQJ2P	016	PPMP-122-SS59-SS-KY0065-REG	02/03/99	14:09
CQJ2R	017	PPMP-122-SS60-SS-KY0066-REG	02/03/99	15:21
CQJ2T	018	PPMP-122-SS61-SS-KY0067-REG	02/03/99	17:16

NOTE(S):

The analytical results of the samples listed above are presented on the following pages.

- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Quanterra

METHODS SUMMARY

B9B050114

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Extractable Petroleum Hydrocarbons	SW846 8015 MOD	SW846 3550
Total Residue as Percent Solids	MCAWW 160.3 MOD	MCAWW 160.3 MOD

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

Quanterra

EXECUTIVE SUMMARY - Detection Highlights

B9B050114

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PPMP-122-SS14-SS-KY0020-REG 02/03/99 13:42 001				
Percent Solids	84.0	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS15-SS-KY0021-REG 02/03/99 14:39 002				
Diesel Range Organics	21	12	mg/kg	SW846 8015 MOD
Percent Solids	81.9	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS16-SS-KY0022-REG 02/03/99 16:35 003				
Diesel Range Organics	29	12	mg/kg	SW846 8015 MOD
Percent Solids	83.8	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS23-SS-KY0029-REG 02/03/99 13:48 004				
Diesel Range Organics	18	12	mg/kg	SW846 8015 MOD
Percent Solids	82.1	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS24-SS-KY0030-REG 02/03/99 14:42 005				
Diesel Range Organics	17	12	mg/kg	SW846 8015 MOD
Percent Solids	83.5	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS25-SS-KY0031-REG 02/03/99 16:43 006				
Diesel Range Organics	15	12	mg/kg	SW846 8015 MOD
Percent Solids	85.0	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS32-SS-KY0038-REG 02/03/99 13:52 007				
Percent Solids	82.3	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS33-SS-KY0039-REG 02/03/99 14:46 008				
Percent Solids	81.0	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS34-SS-KY0040-REG 02/03/99 16:53 009				
Diesel Range Organics	21	12	mg/kg	SW846 8015 MOD
Percent Solids	83.6	0.10	%	MCAWW 160.3 MOD

(Continued on next page)

Quanterra

EXECUTIVE SUMMARY - Detection Highlights

B9B050114

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PPMP-122-SS41-SS-KY0047-REG 02/03/99 13:59 010				
Diesel Range Organics	27	12	mg/kg	SW846 8015 MOD
Percent Solids	82.4	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS42-SS-KY0048-REG 02/03/99 14:54 011				
Diesel Range Organics	24	13	mg/kg	SW846 8015 MOD
Percent Solids	79.7	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS43-SS-KY0049-REG 02/03/99 16:56 012				
Percent Solids	81.1	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS50-SS-KY0056-REG 02/03/99 14:05 013				
Diesel Range Organics	20	13	mg/kg	SW846 8015 MOD
Percent Solids	77.4	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS51-SS-KY0057-REG 02/03/99 15:11 014				
Diesel Range Organics	41	13	mg/kg	SW846 8015 MOD
Percent Solids	78.6	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS52-SS-KY0058-REG 02/03/99 17:05 015				
Percent Solids	79.3	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS59-SS-KY0065-REG 02/03/99 14:09 016				
Percent Solids	74.5	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS60-SS-KY0066-REG 02/03/99 15:21 017				
Diesel Range Organics	31	14	mg/kg	SW846 8015 MOD
Percent Solids	69.5	0.10	%	MCAWW 160.3 MOD
PPMP-122-SS61-SS-KY0067-REG 02/03/99 17:16 018				
Percent Solids	74.9	0.10	%	MCAWW 160.3 MOD

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS14-SS-KY0020-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-001	**Work Order #...:**	CQJ1E102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	16	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	12	mg/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	77	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS15-SS-KY0021-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-002	**Work Order #...:**	CQJ1M102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**21**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	58	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS16-SS-KY0022-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-003	**Work Order #...:**	CQJ1Q102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	16	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**29**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	56	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS23-SS-KY0029-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-004	**Work Order #...:**	CQJ1T102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**18**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	62	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS24-SS-KY0030-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-005	**Work Order #...:**	CQJ1W102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	16	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**17**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	52	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS25-SS-KY0031-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-006	**Work Order #...:**	CQJ20102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	15	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**15**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	63	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS32-SS-KY0038-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-007	**Work Order #...:**	CQJ23102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	12	mg/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	59	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS33-SS-KY0039-REG

GC Semivolatiles

Lot-Sample #...: B9B050114-008	**Work Order #...:** CQJ24102	**Matrix.....:** SOLID
Date Sampled...: 02/03/99	**Date Received..:** 02/05/99	
Prep Date.....: 02/07/99	**Analysis Date..:** 02/10/99	
Prep Batch #...: 9039168		
Dilution Factor: 1	**Initial Wgt/Vol:** 30 g	**Final Wgt/Vol..:** 1 mL
% Moisture.....: 19	**Method.....:** SW846 8015 MOD	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	12	mg/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	58	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS34-SS-KY0040-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-009	**Work Order #...:**	CQJ26102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	16	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**21**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	65	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS41-SS-KY0047-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-010	**Work Order #...:**	CQJ29102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**27**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	72	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS42-SS-KY0048-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-011	**Work Order #...:**	CQJ2E102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	20	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**24**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	67	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS43-SS-KY0049-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-012	**Work Order #...:**	CQJ2F102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	19	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	12	mg/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	56	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS50-SS-KY0056-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-013	**Work Order #...:**	CQJ2G102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	23	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**20**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	52	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS51-SS-KY0057-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-014	**Work Order #...:**	CQJ2J102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	21	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**41**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	59	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS52-SS-KY0058-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-015	**Work Order #...:**	CQJ2L102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	21	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	13	mg/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	56	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS59-SS-KY0065-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-016	**Work Order #...:**	CQJ2P102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	26	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	13	mg/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	59	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS60-SS-KY0066-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-017	**Work Order #...:**	CQJ2R102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	31	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**31**	**14**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	48	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: PPMP-122-SS61-SS-KY0067-REG

GC Semivolatiles

Lot-Sample #...:	B9B050114-018	**Work Order #...:**	CQJ2T102	**Matrix.....:**	SOLID
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	25	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	13	mg/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	42	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: B9B050114 **Work Order #...:** CQKVT101 **Matrix.....:** SOLID
MB Lot-Sample #: B9B080000-168

Prep Date.....: 02/07/99 **Final Wgt/Vol..:** 1 mL
Analysis Date..: 02/10/99 **Prep Batch #...:** 9039168
Dilution Factor: 1 **Initial Wgt/Vol:** 30 g

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diesel Range Organics	ND	10	mg/kg	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	93	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: B9B050114 **Work Order #...:** CQKVT102 **Matrix.....:** SOLID
LCS Lot-Sample#: B9B080000-168
Prep Date.....: 02/07/99 **Analysis Date..:** 02/10/99
Prep Batch #...: 9039168
Dilution Factor: 1 **Final Wgt/Vol..:** 1 mL
Initial Wgt/Vol: 30 g

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Diesel Range Organics	**73**	**(38 - 115)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	93	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	B9B050114	**Work Order #...:**	CQJ1E104-MS	**Matrix.....:**	SOLID
MS Lot-Sample #:	B9B050114-001		CQJ1E105-MSD		
Date Sampled...:	02/03/99	**Date Received..:**	02/05/99		
Prep Date.....:	02/07/99	**Analysis Date..:**	02/10/99		
Prep Batch #...:	9039168				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	16				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Diesel Range Organics	**68**	**(21 - 122)**			**SW846 8015 MOD**
	58	**(21 - 122)**	**13**	**(0-44)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	66	(31 - 144)
	59	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

Quanterra
Environmental Services

TAMPA LABORATORY
CONDITION UPON RECEIPT FORM

Client: IT Ft McClellan **Project Name:** Ft McClellan
Date Received: 2/05/99 **Lot Number:** B9B050114
Received By: [signature] **CUR Completed By:** [signature]

Cooler/Shipping Information:

Type: Cooler ____ Box ____ Other ____/____

Cooler ID/Track #					
Temp (Celsius)	4°				
Cooler ID/Track #					
Temp (Celsius)					

Any "NO" responses or discrepancies should be explained in the "Comments" section below.

CHECKLIST	YES	NO	NA
1. Were custody seals on shipping container(s) intact? Check "NA" if hand delivered. If "Yes," check one: CUSTODY SEAL SAVED ☐ UNABLE TO SAVE CUSTODY SEAL ☑	/		
2. Were custody papers properly included with samples?	/		
3. Were custody papers properly filled out (ink, signed, match labels)?	/		
4. Did all bottles arrive in good condition (unbroken)?	/		
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	/		
6. Were correct bottles used for the tests indicated?	/		
7. Were proper sample preservation techniques indicated?	/		
8. Were samples received within holding times? If "No," NCM required.	/		
9. Were all VOA bottles checked for the presence of air bubbles? If air bubbles were found, indicate in comment section.	/		
10. Were samples in direct contact with wet ice? If "No," check one: **NO ICE** ☐ **BLUE ICE** ☐	/		
11. Were the samples received with a temperature blank? **RECORD TEMPERATURE ABOVE** If "No," check one: UNABLE TO DETERMINE TEMP ☐ TEMP TAKEN FROM ICE/WATER NEAR SAMPLES ☐	/		
12. Were sample pHs checked and recorded by S.R. (see back for Page 2 - Sample pH)? *NOTE: TOC and VOA samples are checked by laboratory analysts. If response is "Not Inspected," then a pH check is not required/performed by Sample Receiving and Page 2 is not applicable.*			Not inspected - Page 2 not completed ☑
13. Were samples accepted into the laboratory?	/		

Comments:

Complete if applicable: NCM#: ____ Check one: Notified PM by E-mail ☐ Hard Copy ☐

Project Manager initials/date reviewed: ML 2/5/99

Corrective Action: ____

Corrective Action completed by/date: ____

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020399-QEST

Project Number: 774645

Project Name: Fort McClellan

Sample Coordinator: John W. Andrew

Turnaround Time: 7days

Samples Shipment Date: 04-FEB-99

Lab Destination: QUANTERRA - TAMPA

Lab Contact: Michelle Lersch

Project Contact: Randy McBride

Carrier/Waybill No.: Fed Ex/7902 0015 1658

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions: FAX sample results to John Andrew at 256-848-3551 within 7 days.

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal:
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

1. Relinquished By (Signature/Affiliation) IT Corp Date: 02/04/99 Time: 1430

2. Relinquished By (Signature/Affiliation) Date: Time:

3. Relinquished By (Signature/Affiliation) Date: Time:

1. Received By (Signature/Affiliation) Date: Time:

2. Received By (Signature/Affiliation) Date: Time:

3. Received By (Signature/Affiliation) Date: 2/05/99 Time: 1000

Comments: Seven day turnaround time!!

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0020	PPMP-122-SS14-SS-KY0020-REG	03-FEB-99	13:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0021	PPMP-122-SS15-SS-KY0021-REG	03-FEB-99	14:39	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0022	PPMP-122-SS16-SS-KY0022-REG	03-FEB-99	16:35	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0029	PPMP-122-SS23-SS-KY0029-REG	03-FEB-99	13:48	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0030	PPMP-122-SS24-SS-KY0030-REG	03-FEB-99	14:42	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0031	PPMP-122-SS25-SS-KY0031-REG	03-FEB-99	16:43	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0038	PPMP-122-SS32-SS-KY0038-REG	03-FEB-99	13:52	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0039	PPMP-122-SS33-SS-KY0039-REG	03-FEB-99	14:46	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 122-020399-QEST

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
KY0040	PPMP-122-SS34-SS-KY0040-REG	03-FEB-99	16:53	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0047	PPMP-122-SS41-SS-KY0047-REG	03-FEB-99	13:59	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0048	PPMP-122-SS42-SS-KY0048-REG	03-FEB-99	14:54	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0049	PPMP-122-SS43-SS-KY0049-REG	03-FEB-99	16:56	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0056	PPMP-122-SS50-SS-KY0056-REG	03-FEB-99	14:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0057	PPMP-122-SS51-SS-KY0057-REG	03-FEB-99	15:11	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0058	PPMP-122-SS52-SS-KY0058-REG	03-FEB-99	17:05	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0065	PPMP-122-SS59-SS-KY0065-REG	03-FEB-99	14:09	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0066	PPMP-122-SS60-SS-KY0066-REG	03-FEB-99	15:21	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
KY0067	PPMP-122-SS61-SS-KY0067-REG	03-FEB-99	17:16	4 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		

Quanterra Incorporated
5910 Breckenridge Parkway, Suite H
Tampa, Florida 33610

813 621-0784 Telephone
813 623-6021 Fax

ANALYTICAL REPORT

PROJECT NO. 774645

Ft. McClellan

Lot #: B9B060105

Duane Nielsen

IT Corp - Ft. McClellan

QUANTERRA INCORPORATED

Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Michele H. Lersch

Michele Lersch
Project Manager

February 15, 1999

Quanterra

Report Narrative

Quanterra Lot: B9B060105 IT Project: 774645/ Ft. McClellan

Diesel Range Organics, 8015-MOD:
No QC problems or anomalies were encountered with the preparation or analysis of these samples for the Diesel Range Organics by the modified SW-846 method 8015.

Quanterra

SAMPLE SUMMARY

B9B060105

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
CQKAJ	001	KY0023	02/04/99	09:14
CQKAK	002	KY0024	02/04/99	09:52
CQKAL	003	KY0032	02/04/99	09:19
CQKAM	004	KY0033	02/04/99	10:06
CQKAN	005	KY0041	02/04/99	09:24
CQKAP	006	KY0042	02/04/99	10:17
CQKAQ	007	KY0050	02/04/99	09:30
CQKAR	008	KY0051	02/04/99	10:23
CQKAT	009	KY0059	02/04/99	09:36
CQKAV	010	KY0060	02/04/99	10:29
CQKAW	011	KY0068	02/04/99	09:48
CQKAX	012	KY0069	02/04/99	10:35

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Quanterra

METHODS SUMMARY

B9B060105

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Extractable Petroleum Hydrocarbons	SW846 8015 MOD	SW846 3550
Total Residue as Percent Solids	MCAWW 160.3 MOD	MCAWW 160.3 MOD

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

Quanterra

EXECUTIVE SUMMARY - Detection Highlights

B9B060105

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
KY0023 02/04/99 09:14 001				
Diesel Range Organics	25	13	mg/kg	SW846 8015 MOD
Percent Solids	79.0	0.10	%	MCAWW 160.3 MOD
KY0024 02/04/99 09:52 002				
Diesel Range Organics	22	12	mg/kg	SW846 8015 MOD
Percent Solids	83.0	0.10	%	MCAWW 160.3 MOD
KY0032 02/04/99 09:19 003				
Diesel Range Organics	21	12	mg/kg	SW846 8015 MOD
Percent Solids	81.0	0.10	%	MCAWW 160.3 MOD
KY0033 02/04/99 10:06 004				
Diesel Range Organics	17	12	mg/kg	SW846 8015 MOD
Percent Solids	81.9	0.10	%	MCAWW 160.3 MOD
KY0041 02/04/99 09:24 005				
Diesel Range Organics	17	12	mg/kg	SW846 8015 MOD
Percent Solids	81.3	0.10	%	MCAWW 160.3 MOD
KY0042 02/04/99 10:17 006				
Diesel Range Organics	15	12	mg/kg	SW846 8015 MOD
Percent Solids	81.6	0.10	%	MCAWW 160.3 MOD
KY0050 02/04/99 09:30 007				
Diesel Range Organics	12	12	mg/kg	SW846 8015 MOD
Percent Solids	82.3	0.10	%	MCAWW 160.3 MOD
KY0051 02/04/99 10:23 008				
Diesel Range Organics	23	13	mg/kg	SW846 8015 MOD
Percent Solids	78.0	0.10	%	MCAWW 160.3 MOD
KY0059 02/04/99 09:36 009				
Percent Solids	76.2	0.10	%	MCAWW 160.3 MOD

(Continued on next page)

Quanterra

EXECUTIVE SUMMARY - Detection Highlights

B9B060105

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
KY0060 02/04/99 10:29 010				
Diesel Range Organics	28	13	mg/kg	SW846 8015 MOD
Percent Solids	76.4	0.10	%	MCAWW 160.3 MOD
KY0068 02/04/99 09:48 011				
Diesel Range Organics	19	13	mg/kg	SW846 8015 MOD
Percent Solids	75.4	0.10	%	MCAWW 160.3 MOD
KY0069 02/04/99 10:35 012				
Diesel Range Organics	34	14	mg/kg	SW846 8015 MOD
Percent Solids	73.5	0.10	%	MCAWW 160.3 MOD

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0023

GC Semivolatiles

Lot-Sample #...:	B9B060105-001	**Work Order #...:**	CQKAJ102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	21	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**25**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	79	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0024

GC Semivolatiles

Lot-Sample #...:	B9B060105-002	**Work Order #...:**	CQKAK102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	17	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**22**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	86	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0032

GC Semivolatiles

Lot-Sample #...:	B9B060105-003	**Work Order #...:**	CQKAL102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	19	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**21**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	72	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0033

GC Semivolatiles

Lot-Sample #...:	B9B060105-004	**Work Order #...:**	CQKAM102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**17**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	64	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0041

GC Semivolatiles

Lot-Sample #...:	B9B060105-005	**Work Order #...:**	CQKAN102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	19	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**17**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	72	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0042

GC Semivolatiles

Lot-Sample #...:	B9B060105-006	**Work Order #...:**	CQKAP102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**15**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	71	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0050

GC Semivolatiles

Lot-Sample #...:	B9B060105-007	**Work Order #...:**	CQKAQ102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	18	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**12**	**12**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	67	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0051

GC Semivolatiles

Lot-Sample #...:	B9B060105-008	**Work Order #...:**	CQKAR102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	22	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**23**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	71	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0059

GC Semivolatiles

Lot-Sample #...:	B9B060105-009	**Work Order #...:**	CQKAT102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	24	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	13	mg/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	64	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0060

GC Semivolatiles

Lot-Sample #...:	B9B060105-010	**Work Order #...:**	CQKAV102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	24	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**28**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	72	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0068

GC Semivolatiles

Lot-Sample #...:	B9B060105-011	**Work Order #...:**	CQKAW102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/11/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	25	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**19**	**13**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	61	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

IT CORP - FT. MCCLELLAN

Client Sample ID: KY0069

GC Semivolatiles

Lot-Sample #...:	B9B060105-012	**Work Order #...:**	CQKAX102	**Matrix.....:**	SOLID
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/12/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	27	**Method.....:**	SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	**34**	**14**	**mg/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	78	(31 - 144)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: B9B060105
MB Lot-Sample #: B9B090000-480

Work Order #...: CQMF8101
Prep Date.....: 02/09/99
Prep Batch #...: 9040480
Initial Wgt/Vol: 30 g

Matrix.....: SOLID
Final Wgt/Vol..: 1 mL

Analysis Date..: 02/11/99
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diesel Range Organics	ND	10	mg/kg	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	47	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: B9B060105 **Work Order #...:** CQMF8102 **Matrix.....:** SOLID
LCS Lot-Sample#: B9B090000-480
Prep Date.....: 02/09/99 **Analysis Date..:** 02/11/99
Prep Batch #...: 9040480
Dilution Factor: 1 **Final Wgt/Vol..:** 1 mL
Initial Wgt/Vol: 30 g

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Diesel Range Organics	**77**	**(38 - 115)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	45	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	B9B060105	**Work Order #...:**	CQKAX104-MS	**Matrix.....:**	SOLID
MS Lot-Sample #:	B9B060105-012		CQKAX105-MSD		
Date Sampled...:	02/04/99	**Date Received..:**	02/06/99		
Prep Date.....:	02/09/99	**Analysis Date..:**	02/12/99		
Prep Batch #...:	9040480				
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	1 mL
% Moisture.....:	27				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Diesel Range Organics	**59**	**(21 - 122)**			**SW846 8015 MOD**
	46	**(21 - 122)**	**14**	**(0-44)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	68	(31 - 144)
	58	(31 - 144)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

APPENDIX C

BORING LOGS

BORING LOGS

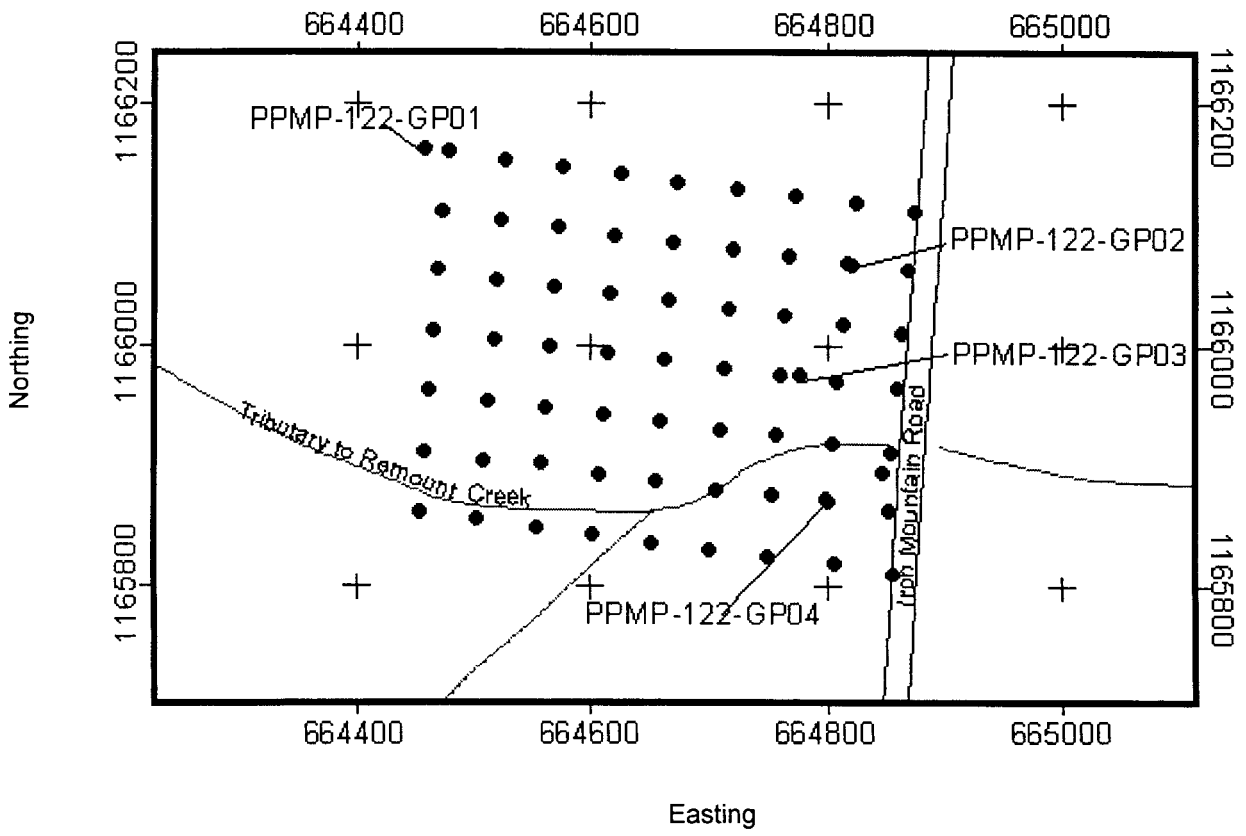
HTRW DRILLING LOG

HOLE NUMBER PPMP-122-GP01

1. Company name: **IT Corporation**	2. Drill Subcontractor: TEG	Sheet 1 of 2 sheets
3. Project: Fort McClellan	4. Location: PPMP-122	
5. Name of driller: Bill Murphy	6. Mfr designation of drill: Geoprobe	
7. Sizes and types of drilling and sampling equipment: Direct Push 2" acetate lined soil sampler	8. Hole location: Former Fog Oil Storage Area 9. Surface elevation (feet above mean sea level): 835.24 10. Date started: 02/17/99 — 11. Date completed: 02/17/99	
12. Overburden thickness (feet bgs): >8	15. Depth groundwater encountered (feet bgs):	
13. Depth drilled into rock (feet bgs):	16. Depth to water and elapsed time after drilling completed (feet bgs):	
14. Total depth of hole (feet bgs): 8	17. Other water level measurements (specify):	

18. Geotechnical samples:	Disturbed:	Undisturbed:		19. Total no. of core boxes:		
20. Samples for chemical analysis:	VOC	Metals	Other (specify)	Other (specify)	Other (specify)	21. Total core recovery:
			SVOC			N/A
22. Disposition of hole:	Backfilled	Monitoring well	Other (specify)	Geologist: J. MESSER		

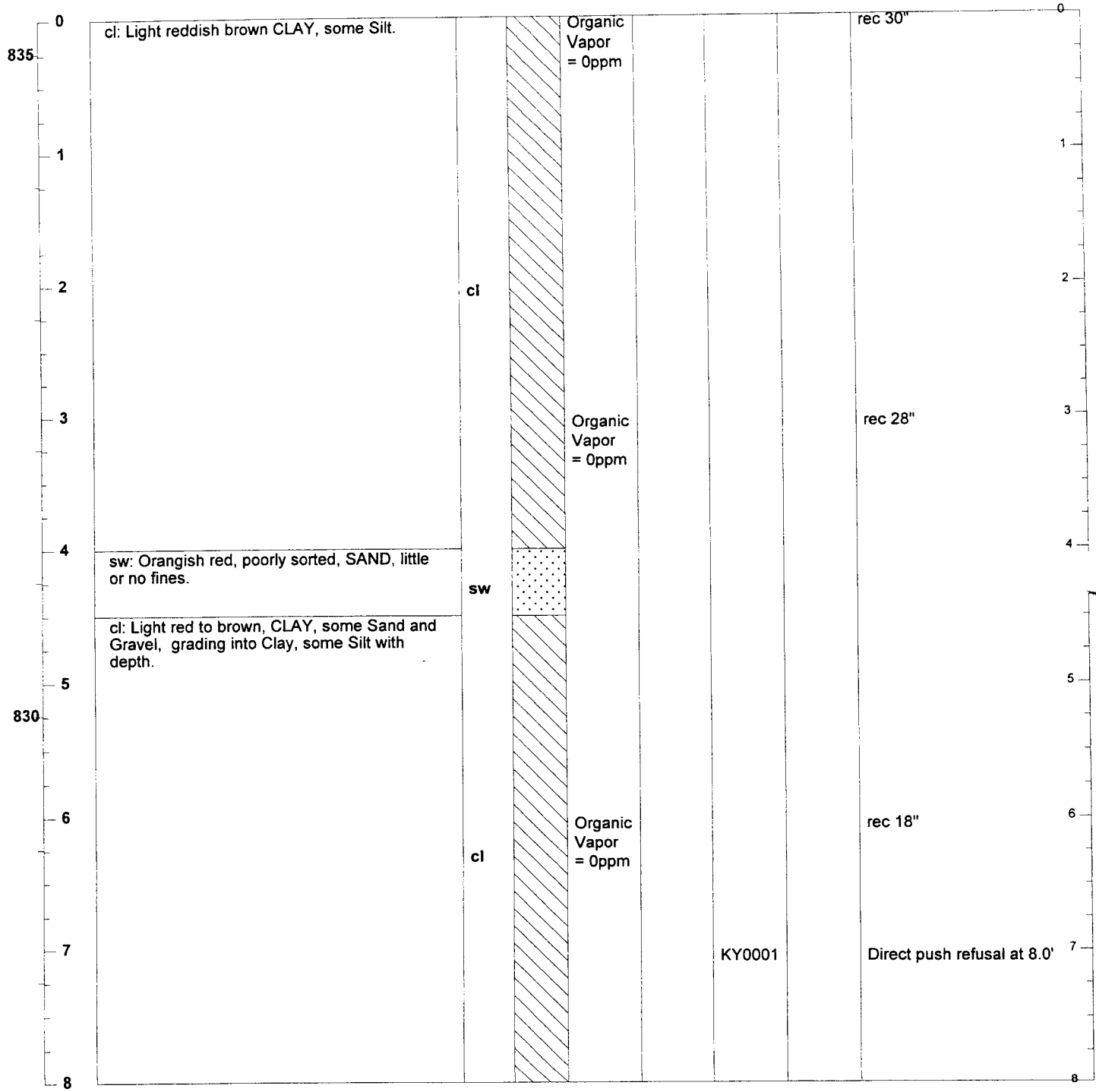
LOCATION SKETCH/COMMENTS:



HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-122-GP01

Project: Fort McClellan | Geologist: J. MESSER | Sheet 2 of 2 sheets



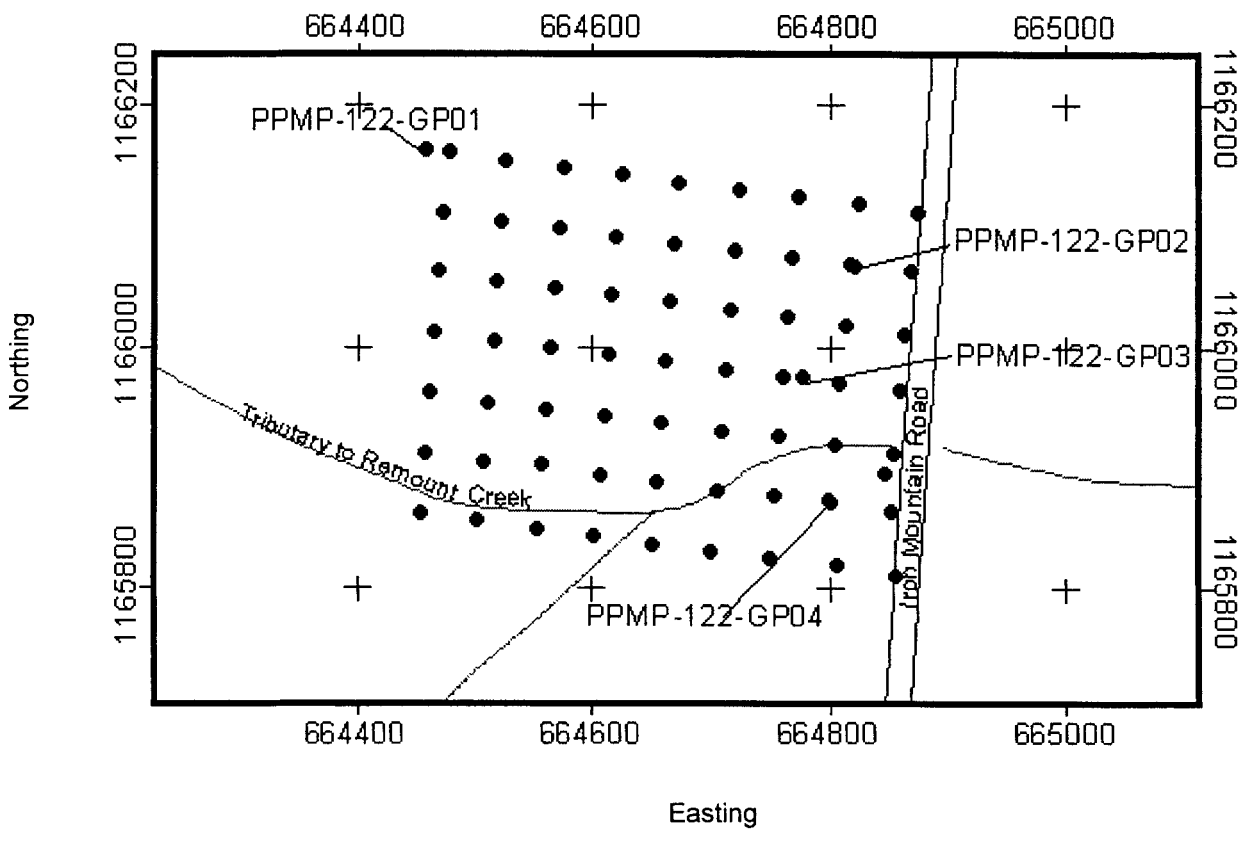
HTRW DRILLING LOG

HOLE NUMBER PPMP-122-GP02

1. Company name: IT Corporation	2. Drill Subcontractor: TEG	Sheet 1 of 2 sheets
3. Project: Fort McClellan	4. Location: PPMP-122	
5. Name of driller: Bill Murphy	6. Mfr designation of drill: Simco Earthprobe 200 ATV	
7. Sizes and types of drilling and sampling equipment: Direct Push 2" acetate lined soil sampler	8. Hole location: Former Fog Oil Storage Area 9. Surface elevation (feet above mean sea level): 807.91 10. Date started: 02/17/99 — 11. Date completed: 02/17/99	
12. Overburden thickness (feet bgs): >8	15. Depth groundwater encountered (feet bgs):	
13. Depth drilled into rock (feet bgs):	16. Depth to water and elapsed time after drilling completed (feet bgs):	
14. Total depth of hole (feet bgs): 8	17. Other water level measurements (specify):	

18. Geotechnical samples:	Disturbed:	Undisturbed:	19. Total no. of core boxes:		
20. Samples for chemical analysis:	VOC	Metals	Other (specify)	Other (specify)	Other (specify)	21. Total core recovery:
			SVOC			N/A
22. Disposition of hole:	Backfilled	Monitoring well	Other (specify)	Geologist: J. MESSER		

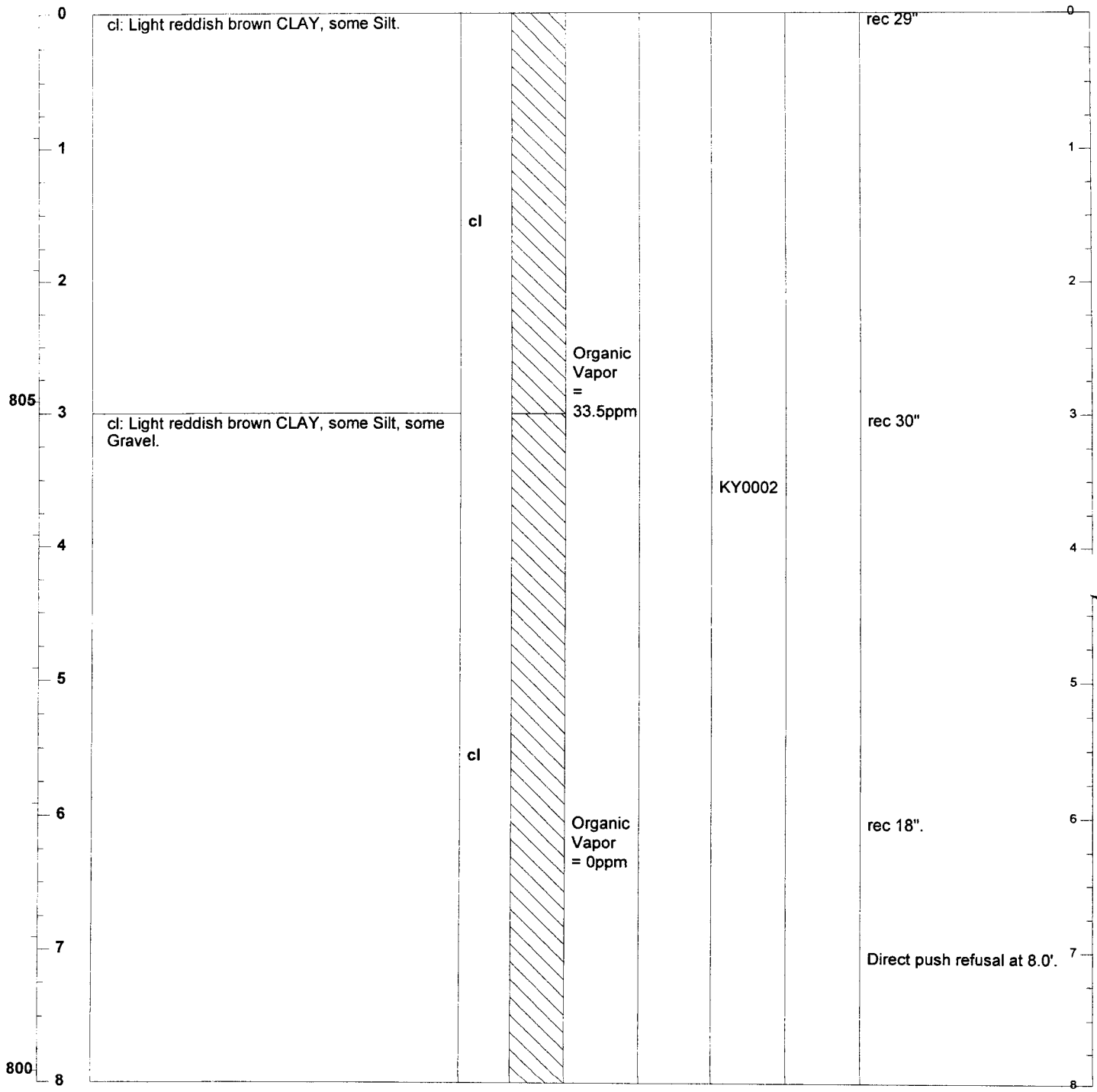
LOCATION SKETCH/COMMENTS:



HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-122-GP02

Project: Fort McClellan | Geologist: J. MESSER | Sheet 2 of 2 sheets



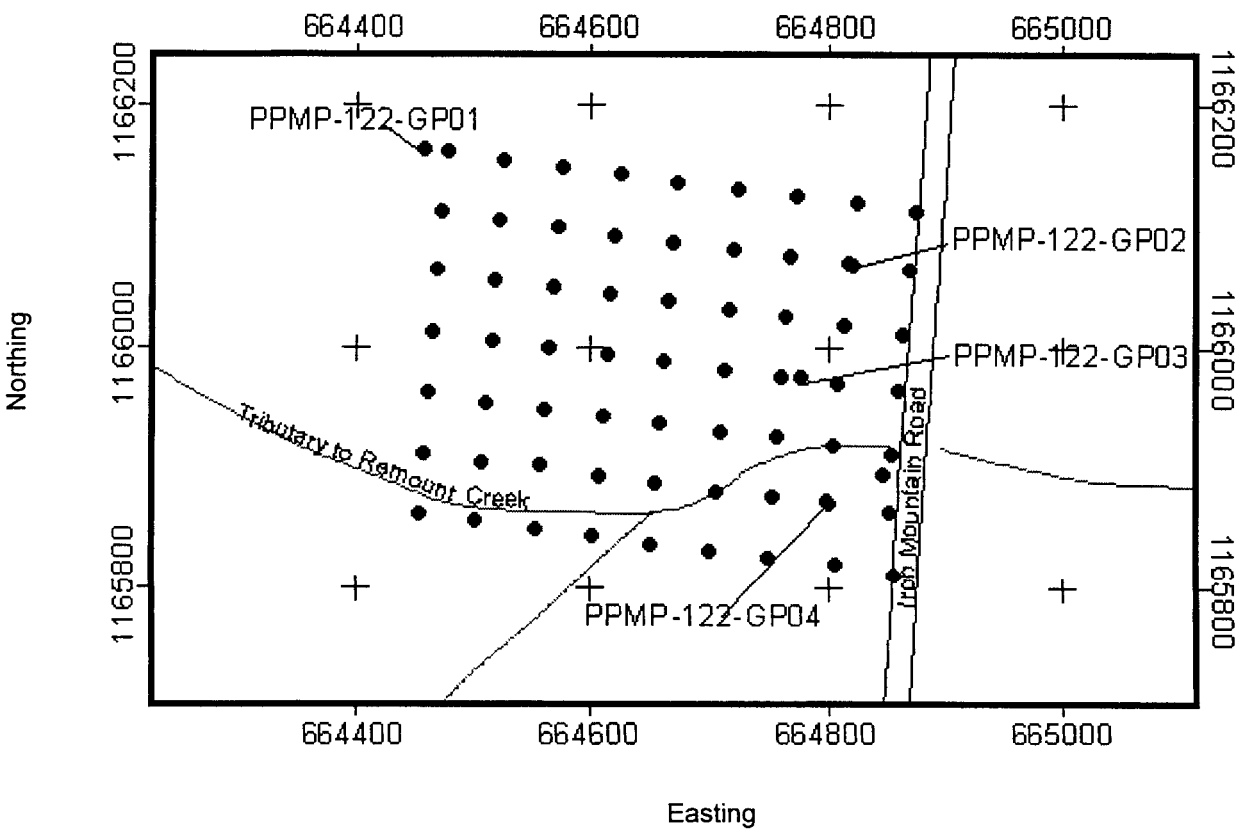
HTRW DRILLING LOG

HOLE NUMBER: PPMP-122-GP03

1. Company name: IT Corporation	2. Drill Subcontractor: TEG	Sheet 1 of 2 sheets
3. Project: Fort McClellan	4. Location: PPMP-122	
5. Name of driller: Bill Murphy	6. Mfr designation of drill: Simco Earthprobe 200 ATV	
7. Sizes and types of drilling and sampling equipment: Direct Push 2" Acetate lined Soil Sampler	8. Hole location: Former Fog Oil Storage Area 9. Surface elevation (feet above mean sea level): 807.42 10. Date started: 02/17/99 — 11. Date completed: 02/17/99	
12. Overburden thickness (feet bgs): >8	15. Depth groundwater encountered (feet bgs):	
13. Depth drilled into rock (feet bgs):	16. Depth to water and elapsed time after drilling completed (feet bgs):	
14. Total depth of hole (feet bgs): 8	17. Other water level measurements (specify):	

18. Geotechnical samples:	Disturbed:	Undisturbed:		19. Total no. of core boxes:		
20. Samples for chemical analysis:	VOC	Metals	Other (specify)	Other (specify)	Other (specify)	21. Total core recovery:
			SVOC			N/A
22. Disposition of hole:	Backfilled	Monitoring well	Other (specify)	Geologist: J. MESSER		

LOCATION SKETCH/COMMENTS:



HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-122-GP03

Project: Fort McClellan | Geologist: J. MESSER | Sheet 2 of 2 sheets

Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow count (g)	Remarks (h)
	0	cl: Light reddish brown CLAY, some Silt. Gravel increases with depth.			Organic Vapor = 0ppm				rec 24"
	1								
	2								
805	3		cl		Organic Vapor = 0ppm				rec 31"
	4								
	5								
	6	cl: Light red to brown CLAY, some Sand and Gravel.			Organic Vapor = 0ppm				rec 18"
	7		cl				KY0003		Direct push refusal at 8.0'.
800	8								

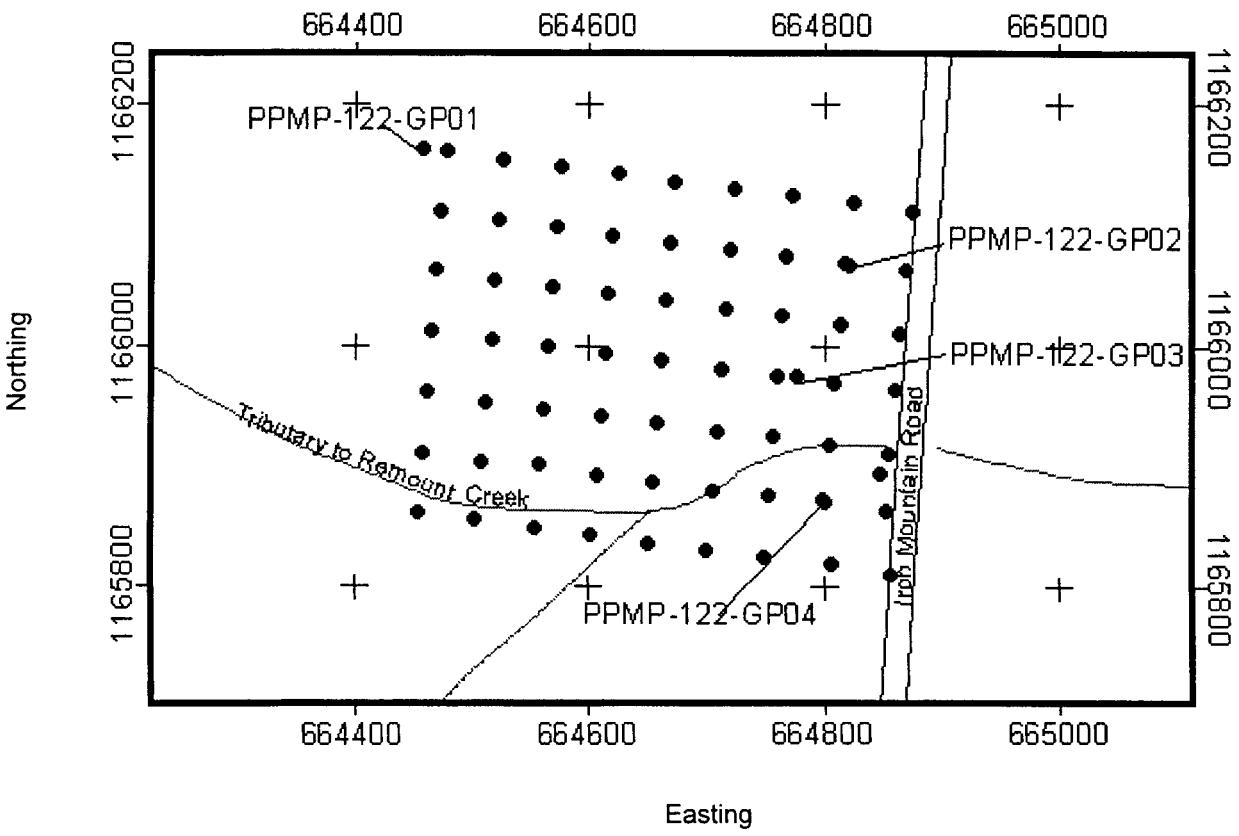
HTRW DRILLING LOG

HOLE NUMBER PPMP-122-GP04

1. Company name: IT Corporation	2. Drill Subcontractor: TEG	Sheet 1 of 2 sheets
3. Project: Fort McClellan	4. Location: PPMP-122	
5. Name of driller: Bill Murphy	6. Mfr designation of drill: Simco Earthprobe 200 ATV	
7. Sizes and types of drilling and sampling equipment: Direct Push 2" Acetate lined Soil Sampler	8. Hole location: Former Fog Oil Storage Area 9. Surface elevation (feet above mean sea level): 806.21 10. Date started: 02/17/99 — 11. Date completed: 02/17/99	
12. Overburden thickness (feet bgs): >6	15. Depth groundwater encountered (feet bgs):	
13. Depth drilled into rock (feet bgs):	16. Depth to water and elapsed time after drilling completed (feet bgs):	
14. Total depth of hole (feet bgs): 6	17. Other water level measurements (specify):	

18. Geotechnical samples:	Disturbed:	Undisturbed:	19. Total no. of core boxes:		
20. Samples for chemical analysis:	VOC	Metals	Other (specify)	Other (specify)	Other (specify)	21. Total core recovery:
			SVOC			N/A
22. Disposition of hole:	Backfilled	Monitoring well	Other (specify)	Geologist: J. MESSER		

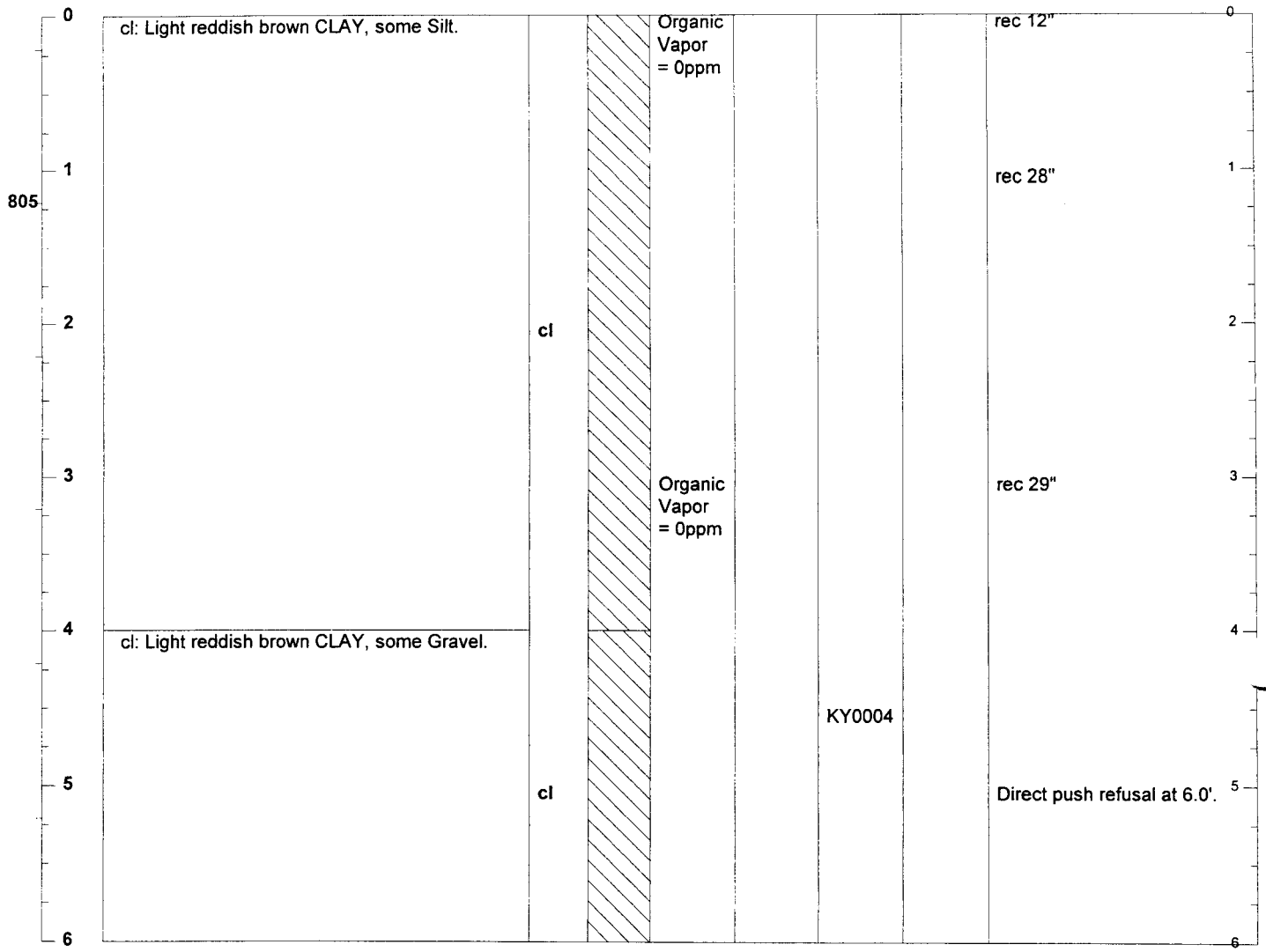
LOCATION SKETCH/COMMENTS:



HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-122-GP04

Project: Fort McClellan | Geologist: J. MESSER | Sheet 2 of 2 sheets



APPENDIX D

SURVEY DATA

Appendix D

Survey Data
Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7)
Fort McClellan, Calhoun County, Alabama

Sample Location	Northing	Easting	Ground Elevation (ft msl)	Top of Casing Elevation (ft msl)
PPMP-122-GP01	1166160.98	664457.28	835.24	NA
PPMP-122-GP02	1166066.27	664821.18	807.91	NA
PPMP-122-GP03	1165972.97	664777.38	807.42	NA
PPMP-122-GP04	1165871.97	664799.36	806.21	NA
PPMP-122-SS01	1166110.23	664874.14	804.85	NA
PPMP-122-SS02	1166116.67	664824.56	812.05	NA
PPMP-122-SS03	1166122.97	664772.96	814.38	NA
PPMP-122-SS04	1166129.03	664723.72	815.89	NA
PPMP-122-SS05	1166134.73	664673.95	822.33	NA
PPMP-122-SS06	1166140.72	664624.78	828.48	NA
PPMP-122-SS07	1166146.89	664575.47	833.00	NA
PPMP-122-SS08	1166152.06	664525.91	833.32	NA
PPMP-122-SS09	1166159.52	664477.16	834.98	NA
PPMP-122-SS10	1166061.73	664867.94	803.46	NA
PPMP-122-SS11	1166067.54	664817.51	808.92	NA
PPMP-122-SS12	1166073.49	664768.20	811.15	NA
PPMP-122-SS13	1166079.09	664719.44	814.31	NA
PPMP-122-SS14	1166084.87	664669.76	818.03	NA
PPMP-122-SS15	1166090.74	664619.67	822.98	NA
PPMP-122-SS16	1166096.74	664571.01	827.54	NA
PPMP-122-SS17	1166102.93	664521.95	828.22	NA
PPMP-122-SS18	1166110.49	664472.19	828.41	NA
PPMP-122-SS19	1166009.59	664862.78	803.28	NA
PPMP-122-SS20	1166016.90	664813.99	806.70	NA
PPMP-122-SS21	1166023.77	664764.42	810.08	NA
PPMP-122-SS22	1166029.08	664715.92	811.26	NA
PPMP-122-SS23	1166035.78	664665.62	816.44	NA
PPMP-122-SS24	1166041.01	664616.65	820.52	NA
PPMP-122-SS25	1166047.39	664567.42	822.17	NA
PPMP-122-SS26	1166053.34	664518.43	823.62	NA
PPMP-122-SS27	1166061.29	664467.90	824.19	NA
PPMP-122-SS28	1165962.43	664858.76	803.17	NA
PPMP-122-SS29	1165968.38	664807.36	805.62	NA
PPMP-122-SS30	1165973.95	664760.71	807.48	NA
PPMP-122-SS31	1165979.58	664712.17	812.43	NA
PPMP-122-SS32	1165985.85	664662.56	814.00	NA
PPMP-122-SS33	1165991.38	664614.21	817.50	NA
PPMP-122-SS34	1165997.80	664563.92	819.49	NA
PPMP-122-SS35	1166002.91	664517.08	820.36	NA
PPMP-122-SS36	1166010.68	664464.49	820.01	NA
PPMP-122-SS37	1165910.60	664854.95	801.96	NA

Appendix D

Survey Data
Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7)
Fort McClellan, Calhoun County, Alabama

Sample Location	Northing	Easting	Ground Elevation (ft msl)	Top of Casing Elevation (ft msl)
PPMP-122-SS38	1165869.57	664801.33	806.34	NA
PPMP-122-SS39	1165924.75	664755.80	806.90	NA
PPMP-122-SS40	1165929.64	664707.87	809.04	NA
PPMP-122-SS41	1165936.05	664657.99	812.70	NA
PPMP-122-SS42	1165941.80	664609.59	816.90	NA
PPMP-122-SS43	1165947.89	664560.01	817.67	NA
PPMP-122-SS44	1165953.67	664511.31	817.25	NA
PPMP-122-SS45	1165961.26	664460.34	819.96	NA
PPMP-122-SS46	1165863.47	664852.05	798.41	NA
PPMP-122-SS47	1165818.00	664805.65	807.45	NA
PPMP-122-SS48	1165875.11	664751.97	807.45	NA
PPMP-122-SS49	1165879.79	664704.22	808.74	NA
PPMP-122-SS50	1165886.12	664654.95	810.45	NA
PPMP-122-SS51	1165891.88	664606.2	811.76	NA
PPMP-122-SS52	1165900.90	664556.38	812.99	NA
PPMP-122-SS53	1165904.15	664506.53	813.78	NA
PPMP-122-SS54	1165911.63	664456.46	819.39	NA
PPMP-122-SS55	1165810.29	664855.73	796.66	NA
PPMP-122-SS56	1165917.86	664804.85	805.88	NA
PPMP-122-SS57	1165824.91	664749.11	807.19	NA
PPMP-122-SS58	1165830.28	664699.64	808.79	NA
PPMP-122-SS59	1165836.17	664651.95	810.06	NA
PPMP-122-SS60	1165842.57	664602.13	811.14	NA
PPMP-122-SS61	1165848.68	664552.60	811.30	NA
PPMP-122-SS62	1165855.32	664501.97	812.34	NA
PPMP-122-SS63	1165861.79	664452.80	814.01	NA
PPMP-122-SW-SD01	1165894.82	664846.70	803.47	NA

Horizontal coordinates referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum, 1983.

Elevations referenced to the North American Vertical Datum of 1988.

ft msl - Feet mean sea level
NA - Not applicable, temporary well not installed.

APPENDIX E

SUMMARY OF VALIDATED ANALYTICAL DATA

Summary of Validated Surface Water Data
Former Fog Oil Storage Area West of the Skeet Range (Parcel 122)
Fort McClellan, Alabama

Report Date: 07/10/00

	Location Code:	PPMP-122-SW-SD01			PPMP-122-SW-SD01		
	Associated Site:	PPMP-122			PPMP-122		
	Sample No:	KY2001			KY2002		
	Sample Date:	08-FEB-99			08-FEB-99		
User Test Group / Lab Method / Parameter	Flt / Units	Result	Qual	VQual	Result	Qual	VQual
SEMIVOLATILES							
SW8270_W							
1,2,4-Trichlorobenzene	mg/L	.01	U	U	.01	U	U
1,2-Dichlorobenzene	mg/L	.01	U	U	.01	U	U
1,3-Dichlorobenzene	mg/L	.01	U	U	.01	U	U
1,4-Dichlorobenzene	mg/L	.01	U	U	.01	U	U
2,4,5-Trichlorophenol	mg/L	.01	U	U	.01	U	U
2,4,6-Trichlorophenol	mg/L	.01	U	U	.01	U	U
2,4-Dichlorophenol	mg/L	.01	U	U	.01	U	U
2,4-Dimethylphenol	mg/L	.01	U	U	.01	U	U
2,4-Dinitrophenol	mg/L	.05	U	U	.05	U	U
2,4-Dinitrotoluene	mg/L	.01	U	U	.01	U	U
2,6-Dinitrotoluene	mg/L	.01	U	U	.01	U	U
2-Chloronaphthalene	mg/L	.01	U	U	.01	U	U
2-Chlorophenol	mg/L	.01	U	U	.01	U	U
2-Methylnaphthalene	mg/L	.01	U	U	.01	U	U
2-Methylphenol	mg/L	.01	U	U	.01	U	U
2-Nitroaniline	mg/L	.05	U	U	.05	U	U
2-Nitrophenol	mg/L	.01	U	U	.01	U	U
3,3'-Dichlorobenzidine	mg/L	.05	U	U	.05	U	U
3-Nitroaniline	mg/L	.05	U	U	.05	U	U
4,6-Dinitro-2-methylphenol	mg/L	.05	U	U	.05	U	U
4-Bromophenyl phenyl ether	mg/L	.01	U	U	.01	U	U
4-Chloro-3-methylphenol	mg/L	.01	U	U	.01	U	U
4-Chloroaniline	mg/L	.01	U	U	.01	U	U
4-Chlorophenyl phenyl ether	mg/L	.01	U	U	.01	U	U
4-Methylphenol	mg/L	.01	U	U	.01	U	U
4-Nitroaniline	mg/L	.05	U	U	.05	U	U
4-Nitrophenol	mg/L	.05	U	U	.05	U	U
Acenaphthene	mg/L	.01	U	U	.01	U	U
Acenaphthylene	mg/L	.01	U	U	.01	U	U
Anthracene	mg/L	.01	U	U	.01	U	U
Benzo(a)anthracene	mg/L	.01	U	U	.01	U	U

Summary of Validated Surface Water Data
Former Fog Oil Storage Area West of the Skeet Range (Parcel 122)
Fort McClellan, Alabama

Report Date: 07/10/00

	Location Code:	PPMP-122-SW-SD01			PPMP-122-SW-SD01		
	Associated Site:	PPMP-122			PPMP-122		
	Sample No:	KY2001			KY2002		
	Sample Date:	08-FEB-99			08-FEB-99		
User Test Group / Lab Method / Parameter	Flt / Units	Result	Qual	VQual	Result	Qual	VQual
SEMIVOLATILES							
SW8270_W							
Benzo(a)pyrene	mg/L	.01	U	U	.01	U	U
Benzo(b)fluoranthene	mg/L	.01	U	U	.01	U	U
Benzo(ghi)perylene	mg/L	.01	U	U	.01	U	U
Benzo(k)fluoranthene	mg/L	.01	U	U	.01	U	U
Butyl benzyl phthalate	mg/L	.01	U	U	.01	U	U
Carbazole	mg/L	.01	U	U	.01	U	U
Chrysene	mg/L	.01	U	U	.01	U	U
Di-n-butyl phthalate	mg/L	.01	U	U	.01	U	U
Di-n-octyl phthalate	mg/L	.01	U	U	.01	U	U
Dibenz(a,h)anthracene	mg/L	.01	U	U	.01	U	U
Dibenzofuran	mg/L	.01	U	U	.01	U	U
Diethyl phthalate	mg/L	.01	U	U	.01	U	U
Dimethyl phthalate	mg/L	.01	U	U	.01	U	U
Fluoranthene	mg/L	.01	U	U	.01	U	U
Fluorene	mg/L	.01	U	U	.01	U	U
Hexachlorobenzene	mg/L	.01	U	U	.01	U	U
Hexachlorobutadiene	mg/L	.01	U	U	.01	U	U
Hexachlorocyclopentadiene	mg/L	.05	U	U	.05	U	U
Hexachloroethane	mg/L	.01	U	U	.01	U	U
Indeno(1,2,3-cd)pyrene	mg/L	.01	U	U	.01	U	U
Isophorone	mg/L	.01	U	U	.01	U	U
Naphthalene	mg/L	.01	U	U	.01	U	U
Nitrobenzene	mg/L	.01	U	U	.01	U	U
Pentachlorophenol	mg/L	.05	U	U	.05	U	U
Phenanthrene	mg/L	.01	U	U	.01	U	U
Phenol	mg/L	.01	U	U	.01	U	U
Pyrene	mg/L	.01	U	U	.01	U	U
bis(2-Chloroethoxy)methane	mg/L	.01	U	U	.01	U	U
bis(2-Chloroethyl)ether	mg/L	.01	U	U	.01	U	U
bis(2-Chloroisopropyl)ether	mg/L	.01	U	U	.01	U	U
bis(2-Ethylhexyl)phthalate	mg/L	.01	U	U	.0023	J B	B

		Location Code:	PPMP-122-SW-SD01			PPMP-122-SW-SD01		
		Associated Site:	PPMP-122			PPMP-122		
		Sample No:	KY2001			KY2002		
		Sample Date:	08-FEB-99			08-FEB-99		
User Test Group / Lab Method	*Parameter*	*Flt*	*Units*	*Result*	*Qual*	*VQual*	*Result*	*Qual*	*VQual*
SEMIVOLATILES									
SW8270_W									
	n-Nitroso-di-n-propylamine		mg/L	.01	U	U	.01	U	U
	n-Nitrosodiphenylamine		mg/L	.01	U	U	.01	U	U

Summary of Validated Subsurface Soil Data
Former Fog Oil Storage Area West of the Skeet Range (Parcel 122)
Fort McClellan, Alabama

Report Date: 07/10/00

	Location Code:	PPMP-122-GP01			PPMP-122-GP02			PPMP-122-GP03			PPMP-122-GP04		
	Associated Site:	PPMP-122			PPMP-122			PPMP-122			PPMP-122		
	Sample No:	KY0001			KY0002			KY0003			KY0004		
	Sample Date:	17-FEB-99			17-FEB-99			17-FEB-99			17-FEB-99		
User Test Group	Sample Depth:	6 - 8			2 - 5			6 - 8			3 - 6		
Lab Method													
Parameter	Units	Result	Qual	VQual	Result	Qual	VQual	Result	Qual	VQual	Result	Qual	VQual
SEMIVOLATILES													
SW8270_S													
1,2,4-Trichlorobenzene	mg/kg	.42	U	UJ	.4	U	UJ	.39	U	UJ	.4	U	UJ
1,2-Dichlorobenzene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
1,3-Dichlorobenzene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
1,4-Dichlorobenzene	mg/kg	.42	U	UJ	.4	U	UJ	.39	U	UJ	.4	U	UJ
2,4,5-Trichlorophenol	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
2,4,6-Trichlorophenol	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
2,4-Dichlorophenol	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
2,4-Dimethylphenol	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
2,4-Dinitrophenol	mg/kg	2	U	U	1.9	U	U	1.9	U	U	1.9	U	U
2,4-Dinitrotoluene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
2,6-Dinitrotoluene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
2-Chloronaphthalene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
2-Chlorophenol	mg/kg	.42	U	UJ	.4	U	UJ	.39	U	UJ	.4	U	UJ
2-Methylnaphthalene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
2-Methylphenol	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
2-Nitroaniline	mg/kg	2	U	U	1.9	U	U	1.9	U	U	1.9	U	U
2-Nitrophenol	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
3,3'-Dichlorobenzidine	mg/kg	2	U	U	1.9	U	U	1.9	U	U	1.9	U	U
3-Nitroaniline	mg/kg	2	U	U	1.9	U	U	1.9	U	U	1.9	U	U
4,6-Dinitro-2-methylphenol	mg/kg	2	U	U	1.9	U	U	1.9	U	U	1.9	U	U
4-Bromophenyl phenyl ether	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
4-Chloro-3-methylphenol	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
4-Chloroaniline	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
4-Chlorophenyl phenyl ether	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
4-Methylphenol	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
4-Nitroaniline	mg/kg	2	U	U	1.9	U	U	1.9	U	U	1.9	U	U
4-Nitrophenol	mg/kg	2	U	U	1.9	U	U	1.9	U	U	1.9	U	U
Acenaphthene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Acenaphthylene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Anthracene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Benzo(a)anthracene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U

	Location Code:	PPMP-122-GP04		
	Associated Site:	PPMP-122		
	Sample No:	KY0005		
	Sample Date:	17-FEB-99		
User Test Group / Lab Method / Parameter	Sample Depth:	3 - 6		
	Units	Result	Qual	VQual
SEMIVOLATILES				
SW8270_S				
1,2,4-Trichlorobenzene	mg/kg	.41	U	UJ
1,2-Dichlorobenzene	mg/kg	.41	U	U
1,3-Dichlorobenzene	mg/kg	.41	U	U
1,4-Dichlorobenzene	mg/kg	.41	U	UJ
2,4,5-Trichlorophenol	mg/kg	.41	U	U
2,4,6-Trichlorophenol	mg/kg	.41	U	U
2,4-Dichlorophenol	mg/kg	.41	U	U
2,4-Dimethylphenol	mg/kg	.41	U	U
2,4-Dinitrophenol	mg/kg	2	U	U
2,4-Dinitrotoluene	mg/kg	.41	U	U
2,6-Dinitrotoluene	mg/kg	.41	U	U
2-Chloronaphthalene	mg/kg	.41	U	U
2-Chlorophenol	mg/kg	.41	U	UJ
2-Methylnaphthalene	mg/kg	.41	U	U
2-Methylphenol	mg/kg	.41	U	U
2-Nitroaniline	mg/kg	2	U	U
2-Nitrophenol	mg/kg	.41	U	U
3,3'-Dichlorobenzidine	mg/kg	2	U	U
3-Nitroaniline	mg/kg	2	U	U
4,6-Dinitro-2-methylphenol	mg/kg	2	U	U
4-Bromophenyl phenyl ether	mg/kg	.41	U	U
4-Chloro-3-methylphenol	mg/kg	.41	U	U
4-Chloroaniline	mg/kg	.41	U	U
4-Chlorophenyl phenyl ether	mg/kg	.41	U	U
4-Methylphenol	mg/kg	.41	U	U
4-Nitroaniline	mg/kg	2	U	U
4-Nitrophenol	mg/kg	2	U	U
Acenaphthene	mg/kg	.41	U	U
Acenaphthylene	mg/kg	.41	U	U
Anthracene	mg/kg	.41	U	U
Benzo(a)anthracene	mg/kg	.41	U	U

Summary of Valid[illegible]ubsurface Soil Data
Former Fog Oil Storage Area West of the Skeet Range (Parcel 122)
Fort McClellan, Alabama

Report Date: 07/10/00

User Test Group / Lab Method / Parameter	Units	Location Code: PPMP-122-GP01 / Associated Site: PPMP-122 / Sample No: KY0001 / Sample Date: 17-FEB-99 / Sample Depth: 6 - 8			Location Code: PPMP-122-GP02 / Associated Site: PPMP-122 / Sample No: KY0002 / Sample Date: 17-FEB-99 / Sample Depth: 2 - 5			Location Code: PPMP-122-GP03 / Associated Site: PPMP-122 / Sample No: KY0003 / Sample Date: 17-FEB-99 / Sample Depth: 6 - 8			Location Code: PPMP-122-GP04 / Associated Site: PPMP-122 / Sample No: KY0004 / Sample Date: 17-FEB-99 / Sample Depth: 3 - 6		
		Result	Qual	VQual	Result	Qual	VQual	Result	Qual	VQual	Result	Qual	VQual
SEMIVOLATILES													
SW8270_S													
Benzo(a)pyrene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Benzo(b)fluoranthene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Benzo(ghi)perylene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Benzo(k)fluoranthene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Butyl benzyl phthalate	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Carbazole	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Chrysene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Di-n-butyl phthalate	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Di-n-octyl phthalate	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Dibenz(a,h)anthracene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Dibenzofuran	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Diethyl phthalate	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Dimethyl phthalate	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Fluoranthene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Fluorene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Hexachlorobenzene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Hexachlorobutadiene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Hexachlorocyclopentadiene	mg/kg	2	U	U	1.9	U	U	1.9	U	U	1.9	U	U
Hexachloroethane	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Indeno(1,2,3-cd)pyrene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Isophorone	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Naphthalene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Nitrobenzene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Pentachlorophenol	mg/kg	2	U	U	1.9	U	U	1.9	U	U	1.9	U	U
Phenanthrene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Phenol	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
Pyrene	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
bis(2-Chloroethoxy)methane	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
bis(2-Chloroethyl)ether	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
bis(2-Chloroisopropyl)ether	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U
bis(2-Ethylhexyl)phthalate	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U

Location Code:	PPMP-122-GP04
Associated Site:	PPMP-122
Sample No:	KY0005
Sample Date:	17-FEB-99
Sample Depth:	3 - 6

User Test Group / Lab Method / Parameter	*Units*	*Result*	*Qual*	*VQual*
SEMIVOLATILES				
SW8270_S				
Benzo(a)pyrene	mg/kg	.41	U	U
Benzo(b)fluoranthene	mg/kg	.41	U	U
Benzo(ghi)perylene	mg/kg	.41	U	U
Benzo(k)fluoranthene	mg/kg	.41	U	U
Butyl benzyl phthalate	mg/kg	.41	U	U
Carbazole	mg/kg	.41	U	U
Chrysene	mg/kg	.41	U	U
Di-n-butyl phthalate	mg/kg	.41	U	U
Di-n-octyl phthalate	mg/kg	.41	U	U
Dibenz(a,h)anthracene	mg/kg	.41	U	U
Dibenzofuran	mg/kg	.41	U	U
Diethyl phthalate	mg/kg	.41	U	U
Dimethyl phthalate	mg/kg	.41	U	U
Fluoranthene	mg/kg	.41	U	U
Fluorene	mg/kg	.41	U	U
Hexachlorobenzene	mg/kg	.41	U	U
Hexachlorobutadiene	mg/kg	.41	U	U
Hexachlorocyclopentadiene	mg/kg	2	U	U
Hexachloroethane	mg/kg	.41	U	U
Indeno(1,2,3-cd)pyrene	mg/kg	.41	U	U
Isophorone	mg/kg	.41	U	U
Naphthalene	mg/kg	.41	U	U
Nitrobenzene	mg/kg	.41	U	U
Pentachlorophenol	mg/kg	2	U	U
Phenanthrene	mg/kg	.41	U	U
Phenol	mg/kg	.41	U	U
Pyrene	mg/kg	.41	U	U
bis(2-Chloroethoxy)methane	mg/kg	.41	U	U
bis(2-Chloroethyl)ether	mg/kg	.41	U	U
bis(2-Chloroisopropyl)ether	mg/kg	.41	U	U
bis(2-Ethylhexyl)phthalate	mg/kg	.41	U	U

Summary of Validated Subsurface Soil Data
Former Fog Oil Storage Area West of the Skeet Range (Parcel 122)
Fort McClellan, Alabama

Report Date: 07/10/00

	Location Code:	PPMP-122-GP01			PPMP-122-GP02			PPMP-122-GP03			PPMP-122-GP04		
	Associated Site:	PPMP-122			PPMP-122			PPMP-122			PPMP-122		
	Sample No:	KY0001			KY0002			KY0003			KY0004		
	Sample Date:	17-FEB-99			17-FEB-99			17-FEB-99			17-FEB-99		
User Test Group / Lab Method	Sample Depth:	6 - 8			2 - 5			6 - 8			3 - 6		
Parameter	Units	Result	Qual	VQual	Result	Qual	VQual	Result	Qual	VQual	Result	Qual	VQual
SEMIVOLATILES													
SW8270_S													
n-Nitroso-di-n-propylamine	mg/kg	.42	U	UJ	.4	U	UJ	.39	U	UJ	.4	U	UJ
n-Nitrosodiphenylamine	mg/kg	.42	U	U	.4	U	U	.39	U	U	.4	U	U

Report Date: 07/10/00

Location Code:	PPMP-122-GP04			
Associated Site:	PPMP-122			
Sample No:	KY0005			
Sample Date:	17-FEB-99			
Sample Depth:	3 - 6			
User Test Group / Lab Method / Parameter	*Units*	*Result*	*Qual*	*VQual*
SEMIVOLATILES				
SW8270_S				
n-Nitroso-di-n-propylamine	mg/kg	.41	U	UJ
n-Nitrosodiphenylamine	mg/kg	.41	U	U

Summary of Validated Sediment Data
Former Fog Oil Storage Area West of the Skeet Range (Parcel 122)
Fort McClellan, Alabama

Report Date: 07/10/00

Location Code:	PPMP-122-SW-SD01			
Associated Site:	PPMP-122			
Sample No:	KY1001			
Sample Date:	08-FEB-99			
Sample Depth:	0 - .5			
User Test Group / Lab Method / Parameter	*Units*	*Result*	*Qual*	*VQual*
SEMIVOLATILES				
SW8270_S				
1,2,4-Trichlorobenzene	mg/kg	.46	U	U
1,2-Dichlorobenzene	mg/kg	.46	U	U
1,3-Dichlorobenzene	mg/kg	.46	U	U
1,4-Dichlorobenzene	mg/kg	.46	U	U
2,4,5-Trichlorophenol	mg/kg	.46	U	U
2,4,6-Trichlorophenol	mg/kg	.46	U	U
2,4-Dichlorophenol	mg/kg	.46	U	U
2,4-Dimethylphenol	mg/kg	.46	U	U
2,4-Dinitrophenol	mg/kg	2.2	U	U
2,4-Dinitrotoluene	mg/kg	.46	U	U
2,6-Dinitrotoluene	mg/kg	.46	U	U
2-Chloronaphthalene	mg/kg	.46	U	U
2-Chlorophenol	mg/kg	.46	U	U
2-Methylnaphthalene	mg/kg	.46	U	U
2-Methylphenol	mg/kg	.46	U	U
2-Nitroaniline	mg/kg	2.2	U	U
2-Nitrophenol	mg/kg	.46	U	U
3,3'-Dichlorobenzidine	mg/kg	2.2	U	U
3-Nitroaniline	mg/kg	2.2	U	U
4,6-Dinitro-2-methylphenol	mg/kg	2.2	U	U
4-Bromophenyl phenyl ether	mg/kg	.46	U	U
4-Chloro-3-methylphenol	mg/kg	.46	U	U
4-Chloroaniline	mg/kg	.46	U	U
4-Chlorophenyl phenyl ether	mg/kg	.46	U	U
4-Methylphenol	mg/kg	.46	U	U
4-Nitroaniline	mg/kg	2.2	U	U
4-Nitrophenol	mg/kg	2.2	U	U
Acenaphthene	mg/kg	.46	U	U
Acenaphthylene	mg/kg	.46	U	U
Anthracene	mg/kg	.46	U	U
Benzo(a)anthracene	mg/kg	.46	U	U

	Location Code:	PPMP-122-SW-SD01		
	Associated Site:	PPMP-122		
	Sample No:	KY1001		
	Sample Date:	08-FEB-99		
User Test Group / Lab Method / Parameter	Sample Depth: / Units	0 - .5 / Result	Qual	VQual
SEMIVOLATILES				
SW8270_S				
Benzo(a)pyrene	mg/kg	.46	U	U
Benzo(b)fluoranthene	mg/kg	.46	U	U
Benzo(ghi)perylene	mg/kg	.46	U	U
Benzo(k)fluoranthene	mg/kg	.46	U	U
Butyl benzyl phthalate	mg/kg	.46	U	U
Carbazole	mg/kg	.46	U	U
Chrysene	mg/kg	.46	U	U
Di-n-butyl phthalate	mg/kg	.46	U	U
Di-n-octyl phthalate	mg/kg	.46	U	U
Dibenz(a,h)anthracene	mg/kg	.46	U	U
Dibenzofuran	mg/kg	.46	U	U
Diethyl phthalate	mg/kg	.46	U	U
Dimethyl phthalate	mg/kg	.46	U	U
Fluoranthene	mg/kg	.46	U	U
Fluorene	mg/kg	.46	U	U
Hexachlorobenzene	mg/kg	.46	U	U
Hexachlorobutadiene	mg/kg	.46	U	U
Hexachlorocyclopentadiene	mg/kg	2.2	U	U
Hexachloroethane	mg/kg	.46	U	U
Indeno(1,2,3-cd)pyrene	mg/kg	.46	U	U
Isophorone	mg/kg	.46	U	U
Naphthalene	mg/kg	.46	U	U
Nitrobenzene	mg/kg	.46	U	U
Pentachlorophenol	mg/kg	2.2	U	U
Phenanthrene	mg/kg	.46	U	U
Phenol	mg/kg	.46	U	U
Pyrene	mg/kg	.46	U	U
bis(2-Chloroethoxy)methane	mg/kg	.46	U	U
bis(2-Chloroethyl)ether	mg/kg	.46	U	U
bis(2-Chloroisopropyl)ether	mg/kg	.46	U	U
bis(2-Ethylhexyl)phthalate	mg/kg	.46	U	U

	Location Code:	PPMP-122-SW-SD01		
	Associated Site:	PPMP-122		
	Sample No:	KY1001		
	Sample Date:	08-FEB-99		
User Test Group / Lab Method	*Sample Depth:*	0 - .5		
Parameter	*Units*	*Result*	*Qual*	*VQual*
SEMIVOLATILES				
SW8270_S				
n-Nitroso-di-n-propylamine	mg/kg	.46	U	U
n-Nitrosodiphenylamine	mg/kg	.46	U	U
TOC				
SW9060_S				
Total Organic Carbon	mg/kg	11800		

GRAIN SIZE ANALYSIS

Duane Nielsen
IT Corporation
March 24, 1999
IT Project ID: Fort McClellan
IT Project No.: 774645.17020300

IT GEOTECHNICAL LABORATORY
OAK RIDGE, TN
(423) 482-6497

PARTICLE-SIZE ANALYSIS
ASTM D 422

PPMP-122-SW/SD01

Project Name	Fort McClellan	Client Sample No.	KY1001
Project No.	774645.17020300	IT Lab Sample No.	ETDC-8213

Specific Gravity = 2.65
assumed for calculations

Moisture Content = 49.7%
based on dry sample weight

SIEVE ANALYSIS

	Sieve No.	Diameter mm	Percent Finer
COARSE	3"	75.000	100.0%
	1.5"	37.500	100.0%
	0.75"	19.000	100.0%
	0.375"	9.500	99.0%
	#4	4.750	94.5%
	#10	2.000	88.6%

	Sieve No.	Diameter mm	Percent Finer
FINE	#20	0.850	84.1%
	#40	0.425	74.9%
	#60	0.250	66.6%
	#100	0.149	60.1%
	#140	0.106	56.7%
	#200	0.075	53.8%

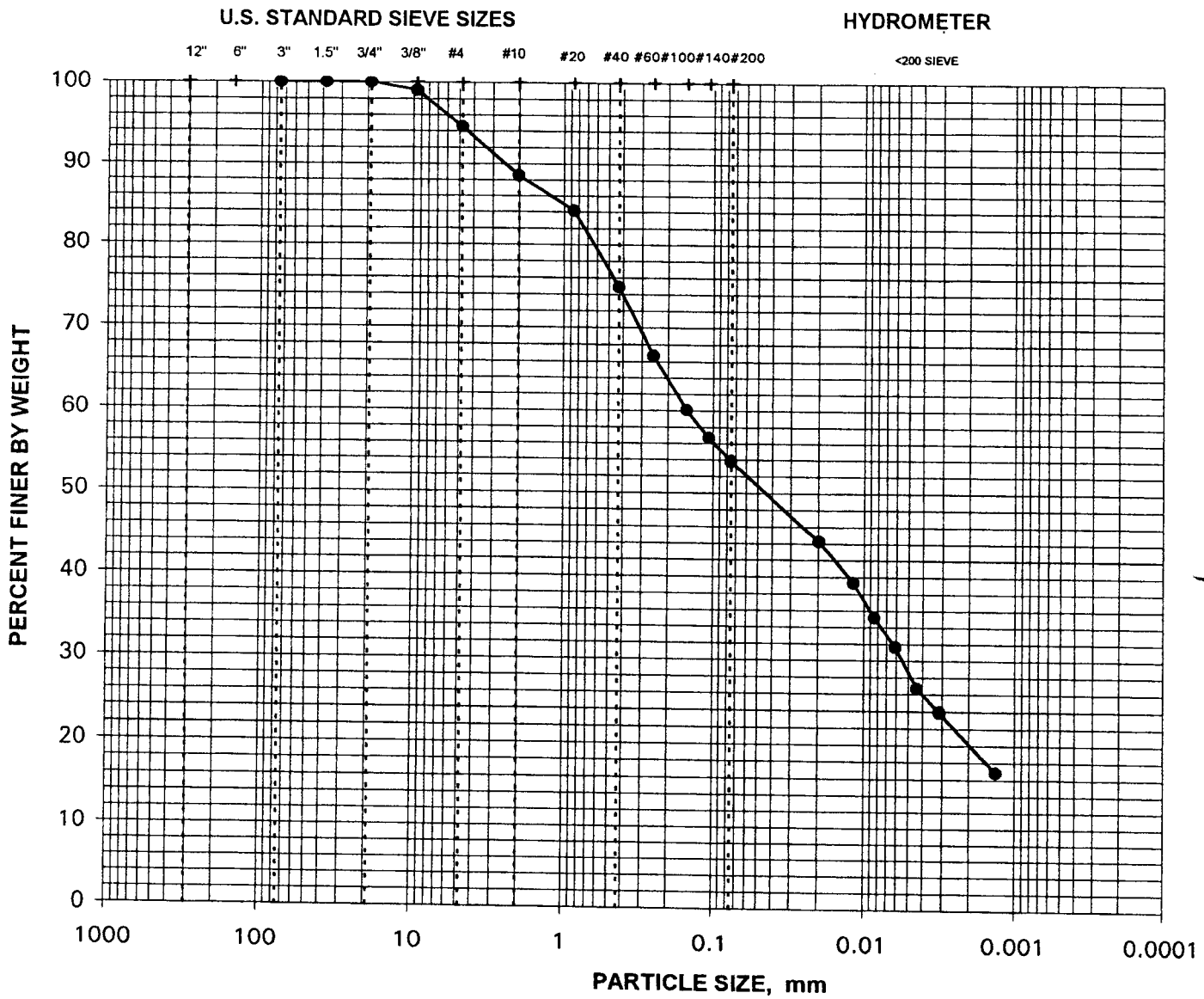
HYDROMETER ANALYSIS

	Diameter mm	Percent Finer
HYDROMETER		
	0.01969	44.2%
	0.01167	39.3%
	0.00844	35.1%
	0.00608	31.6%
	0.00435	26.7%
	0.00309	23.9%
	0.00133	16.8%

Duane Nielsen
IT Corporation
March 24, 1999
IT Project ID: Fort McClellan
IT Project No.: 774645.17020300

IT GEOTECHNICAL
LABORATORY
OAK RIDGE, TN
(423) 482-6497

Fort McClellan



CLIENT SAMPLE NO.: KY1001

IT LAB SAMPLE NO.: ETDC-8213

BOULDERS	COBBLES	GRAVEL		SAND			
		COARSE	FINE	COARSE	MEDIUM	FINE	

SILT 2 - 75 microns

CLAY <2 microns

APPENDIX F

DATA VALIDATION SUMMARY REPORT

Data Validation Summary Report for the Site Investigation Performed at the Former Fog Oil Storage Area West of Skeet Range (Parcel PPMP-122) Fort McClellan, Calhoun County, Alabama

1.0 Introduction

Level III data validation was performed on 100 percent of the environmental samples collected at Parcel PPMP-122. The analytical data consisted of three sample delivery groups (SDG): PK121221, PK121222, and PK121223, which were analyzed by Quanterra Incorporated. Both soil and water matrices were validated. In addition, an evaluation of the field split (FS) data, which was analyzed by the U.S. Army Corps of Engineers-South Atlantic Division laboratory, is included in this report. The chemical parameters for which the samples were analyzed, are identified below:

Parameter (Method)
Target Compound List Semivolatiles by Gas Chromatography SW-846 8270C
Wet Chemistry - Total Organic Carbon by SW846-9060

2.0 Procedures

The sample data were validated following the logic identified in the 1994 U.S. Environmental Protection Agency (EPA) *Contract Laboratory Program National Functional Guidelines For Inorganic Data Review* and the 1994 EPA *Contract Laboratory Program National/Functional Guidelines For Organic Review* for all areas except blanks. *Region III Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses* (April 1993) and *Region III National/Functional Guidelines for Organic Data Review* (June 1992) were applied to the areas associated with blank contamination. Specific quality control (QC) criteria, as identified in the quality assurance plan (QAP), analytical methods, and laboratory standard operating procedures (SOP) were applied to all sample results. As the result of the use of Update III SW-846 test methods for the analytical data and the application of the Contract Laboratory Program (CLP) guidelines during the validation process, there were instances where specific QC requirements for all target compounds were not defined. This primarily occurred in the organic, gas chromatography (GC) and GC/Mass Spectrometry (MS) calibration areas and is due to the fact that the analytical methods are "performance-based", and allows the use of average calibration responses in lieu of individual responses, which are defined by CLP protocol. In light of applying CLP guidelines to SW-846 methods and evaluating the usability of the data during the validation process, specific QC criteria were determined to address all target compounds and are identified in this report for each parameter, as well as, in the validation checklists, which

function as worksheets. All completed validation checklists are on file in the Knoxville office. For those analytical methods not addressed by the CLP and Region III guidelines, the validation was based on the method requirements (i.e., SW-846, Code of Federal Regulations, SOPs, QAP) and technical judgement following the logic of the CLP validation guidelines.

3.0 Summary of Data Validation Findings

The overall quality of the data was determined to be acceptable. Individual validation reports have been prepared for each parameter in each SDG and the overall results of the validation findings are summarized in this report. The validation qualifier data entry verification report (Attachment A) is also provided. This is a complete listing of all of the analytical results and the validation qualifiers assigned for PPMP-122 sites. It also identifies the 'use' column, which indicates which result to use in the event of a reanalysis. A listing of the validation qualifiers and the reason codes, along with their definitions is also found in Attachment A. The following section highlights the key findings of the data validation for each analysis.

4.0 Analysis-Specific Data Validation Summaries

4.1 Target Compound List Semivolatiles by GC/MS SW-846-8270C

Overall, the data are of good quality and are usable as reported by the laboratory with the exceptions noted below. Data were reviewed for the following:

Holding Times

Technical holding time criteria were met for all samples.

Initial and Continuing Calibration

All initial and continuing calibrations associated with the project samples met QC criteria.

Blanks

The 5X/10X rule for contaminants found in the associated equipment rinses and method blanks was applied to all sample results. All were found to be acceptable with the exception of the following:

Note: 'B' qualifiers were applied to all of the following sample results.

SDG/SDGs	Samples Affected	Analyte/Analytes	Associated Blank Contamination
PK121222	KY2002	Bis(2-ethylhexyl)phthalate	Method

'B' qualifiers assigned to designate blank contamination, which are identification qualifiers, take precedence over estimating qualifiers, assigned due to quantitation.

Surrogate Recoveries

All surrogate recoveries met QC criteria.

Matrix Spike/Matrix Spike Duplicate

Matrix spike/matrix spike duplicates (MS/MSD) was performed for the project samples and all QC criteria were met with the exception of the following:

SDG	Samples Affected	Analyte/Analytes	Validation Qualifier
PK121223	KY1001, KY1002, KY1003, KY1004, KY1005	1,4-Dichlorobenzene, 1,2,4-Trichlorobenzene, n-Nitrosodi-n-propylamine, 2-Chlorophenol	UJ

Laboratory Control Sample

All QC criteria was met for the laboratory control sample (LCS) associated with the project sample analyses.

Field Duplicates

Original and field duplicate (FD) results were evaluated and no problems were identified.

Internal Standards

All internal standards met QC criteria.

Quantitation

Results quantified between the maximum detection limit (MDL) and the reporting limit (RL), which the lab qualified as 'J', were qualified as estimated 'J'; unless blank contamination was present or the results were rejected.

4.2 Wet Chemistry - Total Organic Carbon by SW846-9060

Overall, the data are of good quality and are usable as reported by the laboratory with the

exceptions noted below. Data were reviewed for the following:

Holding Times

Technical holding time criteria were met for all samples.

Initial and Continuing Calibration

All initial and continuing calibrations associated with the project samples met QC criteria.

Blanks

The 5X rule for contaminants found in the associated equipment rinses and method blanks was applied to all sample results. All were found to be acceptable.

Matrix Spike/Matrix Spike Duplicate

MS/MSDs and LCS were performed for the project samples, and all QC criteria were met.

Field Duplicates

Original and FD results were evaluated and no problems were noted.

Quantitation

Results quantified between the MDL and the RL, which the lab qualified as 'J', were qualified as estimated 'J'; unless blank contamination was present or the results were rejected.

5.0 Quality Assurance Field Split Sample Data Evaluation

Data from the quality assurance split samples supplied to IT by the U.S. Army Corps of Engineers were reviewed for comparability to the original and FD results. Relative percent differences were calculated and the results are summarized in this section.

Field Split Data for SDG PK121222

Note: FS Laboratory - Specialized Assays, Inc., Nashville, Tennessee

Original Sample ID	Field Duplicate ID	Field Split ID
KY2001	KY2002	KY2003

Comments:

- ***Semivolatiles.*** bis(2-Ethylhexyl)phthalate, a common laboratory contaminant,

was detected in the FD below the RL, but not in the original or FS samples.

Field Split Data for SDG PK121223

Note: FS Laboratory - Specialized Assays, Inc., Nashville, Tennessee

Original Sample ID	Field Duplicate ID	Field Split ID
KY0004	KY0005	KY0006

Comments:

- ***Semivolatiles.*** No semivolatiles were detected in the original, FD or FS samples.

ATTACHMENT A

DATA VALIDATION QUALIFIER ENTRY VERIFICATION REPORT

Validation Qualifiers

U Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit.

J The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

B The concentration reported was detected significantly above the levels reported in the associated equipment rinse samples and/or laboratory method and trip blanks. (5X/10X Rule was applied).

R The reported sample results are rejected due to the following:

1. Severe deficiencies in the supporting quality control data.
2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data.
3. The presence or absence of the constituent cannot be verified based on the data provided.
4. To indicate not to use a particular result in the event of a reanalysis.

UJ The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the "nondetect" may be inaccurate or imprecise. The nondetect result should be estimated.

Validation Reason Code Definitions

Reason Code	Description
01	Sample received outside of 4+/-2 degrees Celsius
01A	Improper sample preservation
02	Holding time exceeded
02A	Extraction
02B	Analysis
03	Instrument performance – outside criteria
03A	BFB
03B	DFTPP
03C	DDT and/or Endrin % breakdown exceeds criteria
03D	Retention time windows
03E	Resolution
04	Initial calibration results outside specified criteria
04A	Compound mean RRF QC criteria not met
04B	Individual % RSD criteria not met
04C	Correlation coefficient >0.995
05	Continuing calibration results outside specified criteria
05A	Compound mean RRF QC criteria not met
05B	Compound % D QC criteria not met
06	Result qualified as a result of the 5x/10x blank correction
06A	Method or preparation blank
06B	ICB or CCB
06C	ER
06D	TB
06E	FB
07	Surrogate recoveries outside control limits
07A	Sample
07B	Associated method blank or LCS
08	MS/MSD/Duplicate results outside criteria
08A	MS and/or MSD recovery not within control limits (accuracy)
08B	% RPD outside acceptance criteria (precision)
09	Post digestion spike outside criteria (GFAA)
10	Internal standards outside specified control limits
10A	Recovery
10B	Retention time
11	Laboratory control sample recoveries outside specified limits
11A	Recovery
11B	% RPD (if run in duplicate)
12	Interference check standard
13	Serial dilution
14	Tentatively identified compounds
15	Quantitation
16	Multiple results available; alternate analysis preferred
17	Field duplicate RPD criteria is exceeded
18	Percent difference between original and second column exceeds QC criteria
19	Professional judgement was used to qualify the data
20	Pesticide clean-up checks
21	Target compound identification
22	Radiological calibration
23	Radiological quantitation
24	Reported result and/or lab qualifier revised to reflect validation findings

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
KY0001	D2216	NONE	N	0	1	PERCENT MOISTURE				Y	Y	P						CQWMFS	00:00
	SW8270	SW3550	N	0	1	1,2,4-TRICHLOROBENZENE	.42	mg/kg	U	N	Y	U	UJ	08A	08B			CQWMFS	11:25
						1,2-DICHLOROBENZENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						1,3-DICHLOROBENZENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						1,4-DICHLOROBENZENE	.42	mg/kg	U	N	Y	U	UJ	08A	08B			CQWMFS	11:25
						2,2'-OXYBIS(1-CHLOROPROPANE)	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2,4,5-TRICHLOROPHENOL	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2,4,6-TRICHLOROPHENOL	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2,4-DICHLOROPHENOL	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2,4-DIMETHYLPHENOL	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2,4-DINITROPHENOL	2	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2,4-DINITROTOLUENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2,6-DINITROTOLUENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2-CHLORONAPHTHALENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2-CHLOROPHENOL	.42	mg/kg	U	N	Y	U	UJ	08A				CQWMFS	11:25
						2-METHYLNAPHTHALENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2-METHYLPHENOL	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2-NITROANILINE	2	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						2-NITROPHENOL	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						3,3'-DICHLOROBENZIDINE	2	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						3-NITROANILINE	2	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						4,6-DINITRO-2-METHYLPHENOL	2	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						4-BROMOPHENYL PHENYL ETHER	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						4-CHLORO-3-METHYLPHENOL	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						4-CHLOROANILINE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						4-CHLOROPHENYL PHENYL ETHER	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						4-METHYLPHENOL	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						4-NITROANILINE	2	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						4-NITROPHENOL	2	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						ACENAPHTHENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						ACENAPHTHYLENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						ANTHRACENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						BENZO(A)ANTHRACENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						BENZO(A)PYRENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						BENZO(B)FLUORANTHENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						BENZO(GHI)PERYLENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						BENZO(K)FLUORANTHENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						BIS(2-CHLOROETHOXY)METHANE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						BIS(2-CHLOROETHYL) ETHER	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						BIS(2-ETHYLHEXYL) PHTHALATE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						BUTYL BENZYL PHTHALATE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						CARBAZOLE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25
						CHRYSENE	.42	mg/kg	U	N	Y	U	U					CQWMFS	11:25

Validation Qualifier Data Entry Verification
Fort McClellan

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
KY0001	SW8270	SW3550	N 0 1	DI-N-BUTYL PHTHALATE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				DI-N-OCTYL PHTHALATE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				DIBENZ(A,H)ANTHRACENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				DIBENZOFURAN	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				DIETHYL PHTHALATE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				DIMETHYL PHTHALATE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				FLUORANTHENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				FLUORENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				HEXACHLOROBENZENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				HEXACHLOROBUTADIENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				HEXACHLOROCYCLOPENTADIENE	2	mg/kg	U	N Y U	U		CQWMFS	11:25
				HEXACHLOROETHANE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				INDENO(1,2,3-CD)PYRENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				ISOPHORONE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				N-NITROSODI-N-PROPYLAMINE	.42	mg/kg	U	N Y U	UJ	08A	CQWMFS	11:25
				N-NITROSODIPHENYLAMINE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				NAPHTHALENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				NITROBENZENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				PENTACHLOROPHENOL	2	mg/kg	U	N Y U	U		CQWMFS	11:25
				PHENANTHRENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				PHENOL	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
				PYRENE	.42	mg/kg	U	N Y U	U		CQWMFS	11:25
KY0002	D2216	NONE	N 0 1	PERCENT MOISTURE				Y Y P			CQWMMS	00:00
	SW8270	SW3550	N 0 1	1,2,4-TRICHLOROBENZENE	.4	mg/kg	U	N Y U	UJ	08A 08B	CQWMMS	00:05
				1,2-DICHLOROBENZENE	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				1,3-DICHLOROBENZENE	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				1,4-DICHLOROBENZENE	.4	mg/kg	U	N Y U	UJ	08A 08B	CQWMMS	00:05
				2,2'-OXYBIS(1-CHLOROPROPANE)	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2,4,5-TRICHLOROPHENOL	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2,4,6-TRICHLOROPHENOL	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2,4-DICHLOROPHENOL	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2,4-DIMETHYLPHENOL	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2,4-DINITROPHENOL	1.9	mg/kg	U	N Y U	U		CQWMMS	00:05
				2,4-DINITROTOLUENE	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2,6-DINITROTOLUENE	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2-CHLORONAPHTHALENE	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2-CHLOROPHENOL	.4	mg/kg	U	N Y U	UJ	08A	CQWMMS	00:05
				2-METHYLNAPHTHALENE	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2-METHYLPHENOL	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				2-NITROANILINE	1.9	mg/kg	U	N Y U	U		CQWMMS	00:05
				2-NITROPHENOL	.4	mg/kg	U	N Y U	U		CQWMMS	00:05
				3,3'-DICHLOROBENZIDINE	1.9	mg/kg	U	N Y U	U		CQWMMS	00:05
				3-NITROANILINE	1.9	mg/kg	U	N Y U	U		CQWMMS	00:05

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
KY0002	SW8270	SW3550	N	0	1	4,6-DINITRO-2-METHYLPHENOL	1.9	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						4-BROMOPHENYL PHENYL ETHER	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						4-CHLORO-3-METHYLPHENOL	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						4-CHLOROANILINE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						4-CHLOROPHENYL PHENYL ETHER	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						4-METHYLPHENOL	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						4-NITROANILINE	1.9	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						4-NITROPHENOL	1.9	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						ACENAPHTHENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						ACENAPHTHYLENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						ANTHRACENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						BENZO(A)ANTHRACENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						BENZO(A)PYRENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						BENZO(B)FLUORANTHENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						BENZO(GHI)PERYLENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						BENZO(K)FLUORANTHENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						BIS(2-CHLOROETHOXY)METHANE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						BIS(2-CHLOROETHYL) ETHER	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						BIS(2-ETHYLHEXYL) PHTHALATE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						BUTYL BENZYL PHTHALATE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						CARBAZOLE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						CHRYSENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						DI-N-BUTYL PHTHALATE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						DI-N-OCTYL PHTHALATE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						DIBENZ(A,H)ANTHRACENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						DIBENZOFURAN	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						DIETHYL PHTHALATE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						DIMETHYL PHTHALATE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						FLUORANTHENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						FLUORENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						HEXACHLOROBENZENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						HEXACHLOROBUTADIENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						HEXACHLOROCYCLOPENTADIENE	1.9	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						HEXACHLOROETHANE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						INDENO(1,2,3-CD)PYRENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						ISOPHORONE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						N-NITROSODI-N-PROPYLAMINE	.4	mg/kg	U	N	Y	U	UJ	08B				CQWMMS	00:05
						N-NITROSODIPHENYLAMINE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						NAPHTHALENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						NITROBENZENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						PENTACHLOROPHENOL	1.9	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						PHENANTHRENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						PHENOL	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05
						PYRENE	.4	mg/kg	U	N	Y	U	U					CQWMMS	00:05

Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: September 22, 2000

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
KY0003	D2216	NONE	N	0	1	PERCENT MOISTURE				Y	Y	P						CQWMNS	00:00
	SW8270	SW3550	N	0	1	1,2,4-TRICHLOROBENZENE	.39	mg/kg	U	N	Y	U	UJ	08A	08B			CQWMNS	11:59
						1,2-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						1,3-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						1,4-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	UJ	08A	08B			CQWMNS	11:59
						2,2'-OXYBIS(1-CHLOROPROPANE)	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2,4,5-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2,4,6-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2,4-DICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2,4-DIMETHYLPHENOL	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2,4-DINITROPHENOL	1.9	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2,4-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2,6-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2-CHLORONAPHTHALENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2-CHLOROPHENOL	.39	mg/kg	U	N	Y	U	UJ	08A				CQWMNS	11:59
						2-METHYLNAPHTHALENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2-NITROANILINE	1.9	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						2-NITROPHENOL	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						3,3'-DICHLOROBENZIDINE	1.9	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						3-NITROANILINE	1.9	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						4,6-DINITRO-2-METHYLPHENOL	1.9	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						4-BROMOPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						4-CHLORO-3-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						4-CHLOROANILINE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						4-CHLOROPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						4-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						4-NITROANILINE	1.9	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						4-NITROPHENOL	1.9	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						ACENAPHTHENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						ACENAPHTHYLENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						ANTHRACENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						BENZO(A)ANTHRACENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						BENZO(A)PYRENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						BENZO(B)FLUORANTHENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						BENZO(GHI)PERYLENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						BENZO(K)FLUORANTHENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						BIS(2-CHLOROETHOXY)METHANE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						BIS(2-CHLOROETHYL) ETHER	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						BIS(2-ETHYLHEXYL) PHTHALATE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						BUTYL BENZYL PHTHALATE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						CARBAZOLE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						CHRYSENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
KY0003	SW8270	SW3550	N	0	1	DI-N-BUTYL PHTHALATE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						DI-N-OCTYL PHTHALATE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						DIBENZ(A,H)ANTHRACENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						DIBENZOFURAN	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						DIETHYL PHTHALATE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						DIMETHYL PHTHALATE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						FLUORANTHENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						FLUORENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						HEXACHLOROBENZENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						HEXACHLOROBUTADIENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						HEXACHLOROCYCLOPENTADIENE	1.9	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						HEXACHLOROETHANE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						INDENO(1,2,3-CD)PYRENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						ISOPHORONE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						N-NITROSODI-N-PROPYLAMINE	.39	mg/kg	U	N	Y	U	UJ	08B				CQWMNS	11:59
						N-NITROSODIPHENYLAMINE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						NAPHTHALENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						NITROBENZENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						PENTACHLOROPHENOL	1.9	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						PHENANTHRENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						PHENOL	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
						PYRENE	.39	mg/kg	U	N	Y	U	U					CQWMNS	11:59
KY0004	D2216	NONE	N	0	1	PERCENT MOISTURE				Y	Y	P						CQWMPS	00:00
	SW8270	SW3550	N	0	1	1,2,4-TRICHLOROBENZENE	.4	mg/kg	U	N	Y	U	UJ	08A	08B			CQWMPS	17:48
						1,2-DICHLOROBENZENE	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						1,3-DICHLOROBENZENE	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						1,4-DICHLOROBENZENE	.4	mg/kg	U	N	Y	U	UJ	08A	08B			CQWMPS	17:48
						2,2'-OXYBIS(1-CHLOROPROPANE)	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2,4,5-TRICHLOROPHENOL	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2,4,6-TRICHLOROPHENOL	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2,4-DICHLOROPHENOL	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2,4-DIMETHYLPHENOL	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2,4-DINITROPHENOL	1.9	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2,4-DINITROTOLUENE	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2,6-DINITROTOLUENE	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2-CHLORONAPHTHALENE	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2-CHLOROPHENOL	.4	mg/kg	U	N	Y	U	UJ	08A				CQWMPS	17:48
						2-METHYLNAPHTHALENE	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2-METHYLPHENOL	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2-NITROANILINE	1.9	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						2-NITROPHENOL	.4	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						3,3'-DICHLOROBENZIDINE	1.9	mg/kg	U	N	Y	U	U					CQWMPS	17:48
						3-NITROANILINE	1.9	mg/kg	U	N	Y	U	U					CQWMPS	17:48

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
KY0004	SW8270	SW3550	N 0 1	4,6-DINITRO-2-METHYLPHENOL	1.9	mg/kg	U	N Y U	U		CQWMPS	17:48
				4-BROMOPHENYL PHENYL ETHER	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				4-CHLORO-3-METHYLPHENOL	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				4-CHLOROANILINE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				4-CHLOROPHENYL PHENYL ETHER	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				4-METHYLPHENOL	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				4-NITROANILINE	1.9	mg/kg	U	N Y U	U		CQWMPS	17:48
				4-NITROPHENOL	1.9	mg/kg	U	N Y U	U		CQWMPS	17:48
				ACENAPHTHENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				ACENAPHTHYLENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				ANTHRACENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				BENZO(A)ANTHRACENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				BENZO(A)PYRENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				BENZO(B)FLUORANTHENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				BENZO(GHI)PERYLENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				BENZO(K)FLUORANTHENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				BIS(2-CHLOROETHOXY)METHANE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				BIS(2-CHLOROETHYL) ETHER	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				BIS(2-ETHYLHEXYL) PHTHALATE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				BUTYL BENZYL PHTHALATE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				CARBAZOLE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				CHRYSENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				DI-N-BUTYL PHTHALATE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				DI-N-OCTYL PHTHALATE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				DIBENZ(A,H)ANTHRACENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				DIBENZOFURAN	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				DIETHYL PHTHALATE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				DIMETHYL PHTHALATE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				FLUORANTHENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				FLUORENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				HEXACHLOROBENZENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				HEXACHLOROBUTADIENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				HEXACHLOROCYCLOPENTADIENE	1.9	mg/kg	U	N Y U	U		CQWMPS	17:48
				HEXACHLOROETHANE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				INDENO(1,2,3-CD)PYRENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				ISOPHORONE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				N-NITROSODI-N-PROPYLAMINE	.4	mg/kg	U	N Y U	UJ	08B	CQWMPS	17:48
				N-NITROSODIPHENYLAMINE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				NAPHTHALENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				NITROBENZENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				PENTACHLOROPHENOL	1.9	mg/kg	U	N Y U	U		CQWMPS	17:48
				PHENANTHRENE	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				PHENOL	.4	mg/kg	U	N Y U	U		CQWMPS	17:48
				PYRENE	.4	mg/kg	U	N Y U	U		CQW[illegible]	17:48

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
KY0005	D2216	NONE	N	0	1	PERCENT MOISTURE				Y	Y							CQWMQS	00:00
	SW8270	SW3550	N	0	1	1,2,4-TRICHLOROBENZENE	.41	mg/kg	U	N	Y		UJ	08A	08B			CQWMQS	19:08
						1,2-DICHLOROBENZENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						1,3-DICHLOROBENZENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						1,4-DICHLOROBENZENE	.41	mg/kg	U	N	Y		UJ	08A	08B			CQWMQS	19:08
						2,2'-OXYBIS(1-CHLOROPROPANE)	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2,4,5-TRICHLOROPHENOL	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2,4,6-TRICHLOROPHENOL	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2,4-DICHLOROPHENOL	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2,4-DIMETHYLPHENOL	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2,4-DINITROPHENOL	2	mg/kg	U	N	Y		U					CQWMQS	19:08
						2,4-DINITROTOLUENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2,6-DINITROTOLUENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2-CHLORONAPHTHALENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2-CHLOROPHENOL	.41	mg/kg	U	N	Y		UJ	08A				CQWMQS	19:08
						2-METHYLNAPHTHALENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2-METHYLPHENOL	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						2-NITROANILINE	2	mg/kg	U	N	Y		U					CQWMQS	19:08
						2-NITROPHENOL	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						3,3'-DICHLOROBENZIDINE	2	mg/kg	U	N	Y		U					CQWMQS	19:08
						3-NITROANILINE	2	mg/kg	U	N	Y		U					CQWMQS	19:08
						4,6-DINITRO-2-METHYLPHENOL	2	mg/kg	U	N	Y		U					CQWMQS	19:08
						4-BROMOPHENYL PHENYL ETHER	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						4-CHLORO-3-METHYLPHENOL	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						4-CHLOROANILINE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						4-CHLOROPHENYL PHENYL ETHER	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						4-METHYLPHENOL	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						4-NITROANILINE	2	mg/kg	U	N	Y		U					CQWMQS	19:08
						4-NITROPHENOL	2	mg/kg	U	N	Y		U					CQWMQS	19:08
						ACENAPHTHENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						ACENAPHTHYLENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						ANTHRACENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						BENZO(A)ANTHRACENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						BENZO(A)PYRENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						BENZO(B)FLUORANTHENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						BENZO(GHI)PERYLENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						BENZO(K)FLUORANTHENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						BIS(2-CHLOROETHOXY)METHANE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						BIS(2-CHLOROETHYL) ETHER	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						BIS(2-ETHYLHEXYL) PHTHALATE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						BUTYL BENZYL PHTHALATE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						CARBAZOLE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						CHRYSENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08

Validation Qualifier Data Entry Verification

Fort McClellan

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
KY0005	SW8270	SW3550	N	0	1	DI-N-BUTYL PHTHALATE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						DI-N-OCTYL PHTHALATE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						DIBENZ(A,H)ANTHRACENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						DIBENZOFURAN	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						DIETHYL PHTHALATE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						DIMETHYL PHTHALATE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						FLUORANTHENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						FLUORENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						HEXACHLOROBENZENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						HEXACHLOROBUTADIENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						HEXACHLOROCYCLOPENTADIENE	2	mg/kg	U	N	Y		U					CQWMQS	19:08
						HEXACHLOROETHANE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						INDENO(1,2,3-CD)PYRENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						ISOPHORONE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						N-NITROSODI-N-PROPYLAMINE	.41	mg/kg	U	N	Y		UJ	08B				CQWMQS	19:08
						N-NITROSODIPHENYLAMINE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						NAPHTHALENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						NITROBENZENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						PENTACHLOROPHENOL	2	mg/kg	U	N	Y		U					CQWMQS	19:08
						PHENANTHRENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						PHENOL	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
						PYRENE	.41	mg/kg	U	N	Y		U					CQWMQS	19:08
KY1001	D2216	NONE	N	0	1	PERCENT MOISTURE				Y	Y	P						CQM9WS	00:00
	SW8270	SW3550	N	0	1	1,2,4-TRICHLOROBENZENE	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						1,2-DICHLOROBENZENE	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						1,3-DICHLOROBENZENE	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						1,4-DICHLOROBENZENE	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2,2'-OXYBIS(1-CHLOROPROPANE)	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2,4,5-TRICHLOROPHENOL	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2,4,6-TRICHLOROPHENOL	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2,4-DICHLOROPHENOL	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2,4-DIMETHYLPHENOL	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2,4-DINITROPHENOL	2.2	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2,4-DINITROTOLUENE	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2,6-DINITROTOLUENE	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2-CHLORONAPHTHALENE	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2-CHLOROPHENOL	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2-METHYLNAPHTHALENE	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2-METHYLPHENOL	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2-NITROANILINE	2.2	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						2-NITROPHENOL	.46	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						3,3'-DICHLOROBENZIDINE	2.2	mg/kg	U	N	Y	U	U					CQM9WS	10:15
						3-NITROANILINE	2.2	mg/kg	U	N	Y	U	U					CQM9WS	10:15

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
KY1001	SW8270	SW3550	N 0 1	4,6-DINITRO-2-METHYLPHENOL	2.2	mg/kg	U	N Y U	U		CQM9WS	10:15
				4-BROMOPHENYL PHENYL ETHER	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				4-CHLORO-3-METHYLPHENOL	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				4-CHLOROANILINE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				4-CHLOROPHENYL PHENYL ETHER	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				4-METHYLPHENOL	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				4-NITROANILINE	2.2	mg/kg	U	N Y U	U		CQM9WS	10:15
				4-NITROPHENOL	2.2	mg/kg	U	N Y U	U		CQM9WS	10:15
				ACENAPHTHENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				ACENAPHTHYLENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				ANTHRACENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				BENZ(A)ANTHRACENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				BENZO(A)PYRENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				BENZO(B)FLUORANTHENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				BENZO(GHI)PERYLENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				BENZO(K)FLUORANTHENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				BIS(2-CHLOROETHOXY)METHANE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				BIS(2-CHLOROETHYL) ETHER	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				BIS(2-ETHYLHEXYL) PHTHALATE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				BUTYL BENZYL PHTHALATE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				CARBAZOLE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				CHRYSENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				DI-N-BUTYL PHTHALATE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				DI-N-OCTYL PHTHALATE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				DIBENZ(A,H)ANTHRACENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				DIBENZOFURAN	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				DIETHYL PHTHALATE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				DIMETHYL PHTHALATE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				FLUORANTHENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				FLUORENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				HEXACHLOROBENZENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				HEXACHLOROBUTADIENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				HEXACHLOROCYCLOPENTADIENE	2.2	mg/kg	U	N Y U	U		CQM9WS	10:15
				HEXACHLOROETHANE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				INDENO(1,2,3-CD)PYRENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				ISOPHORONE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				N-NITROSODI-N-PROPYLAMINE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				N-NITROSODIPHENYLAMINE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				NAPHTHALENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				NITROBENZENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				PENTACHLOROPHENOL	2.2	mg/kg	U	N Y U	U		CQM9WS	10:15
				PHENANTHRENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				PHENOL	.46	mg/kg	U	N Y U	U		CQM9WS	10:15
				PYRENE	.46	mg/kg	U	N Y U	U		CQM9WS	10:15

Validation Qualifier Data Entry Verification

Fort McClellan

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
KY1001	SW9060	METHOD	N	0	1.0	ORGANIC CARBON, TOTAL	11800	mg/kg		Y	Y	P						3041610001SA	17:19
KY2001	SW8270	SW3520	N	0	1	1,2,4-TRICHLOROBENZENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						1,2-DICHLOROBENZENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						1,3-DICHLOROBENZENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						1,4-DICHLOROBENZENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2,2'-OXYBIS(1-CHLOROPROPANE)	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2,4,5-TRICHLOROPHENOL	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2,4,6-TRICHLOROPHENOL	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2,4-DICHLOROPHENOL	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2,4-DIMETHYLPHENOL	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2,4-DINITROPHENOL	.05	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2,4-DINITROTOLUENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2,6-DINITROTOLUENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2-CHLORONAPHTHALENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2-CHLOROPHENOL	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2-METHYLNAPHTHALENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2-METHYLPHENOL	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2-NITROANILINE	.05	mg/L	U	N	Y	U	U					CQMD7W	17:43
						2-NITROPHENOL	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						3,3'-DICHLOROBENZIDINE	.05	mg/L	U	N	Y	U	U					CQMD7W	17:43
						3-NITROANILINE	.05	mg/L	U	N	Y	U	U					CQMD7W	17:43
						4,6-DINITRO-2-METHYLPHENOL	.05	mg/L	U	N	Y	U	U					CQMD7W	17:43
						4-BROMOPHENYL PHENYL ETHER	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						4-CHLORO-3-METHYLPHENOL	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						4-CHLOROANILINE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						4-CHLOROPHENYL PHENYL ETHER	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						4-METHYLPHENOL	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						4-NITROANILINE	.05	mg/L	U	N	Y	U	U					CQMD7W	17:43
						4-NITROPHENOL	.05	mg/L	U	N	Y	U	U					CQMD7W	17:43
						ACENAPHTHENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						ACENAPHTHYLENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						ANTHRACENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						BENZ(A)ANTHRACENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						BENZO(A)PYRENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						BENZO(B)FLUORANTHENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						BENZO(GHI)PERYLENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						BENZO(K)FLUORANTHENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						BIS(2-CHLOROETHOXY)METHANE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						BIS(2-CHLOROETHYL) ETHER	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						BIS(2-ETHYLHEXYL) PHTHALATE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						BUTYL BENZYL PHTHALATE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						CARBAZOLE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43
						CHRYSENE	.01	mg/L	U	N	Y	U	U					CQMD7W	17:43

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
KY2001	SW8270	SW3520	N	0	1	DI-N-BUTYL PHTHALATE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						DI-N-OCTYL PHTHALATE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						DIBENZ(A,H)ANTHRACENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						DIBENZOFURAN	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						DIETHYL PHTHALATE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						DIMETHYL PHTHALATE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						FLUORANTHENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						FLUORENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						HEXACHLOROBENZENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						HEXACHLOROBUTADIENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						HEXACHLOROCYCLOPENTADIENE	.05	mg/L	U	N	Y	U	U		CQMD7W	17:43
						HEXACHLOROETHANE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						INDENO(1,2,3-CD)PYRENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						ISOPHORONE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						N-NITROSODI-N-PROPYLAMINE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						N-NITROSODIPHENYLAMINE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						NAPHTHALENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						NITROBENZENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						PENTACHLOROPHENOL	.05	mg/L	U	N	Y	U	U		CQMD7W	17:43
						PHENANTHRENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						PHENOL	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
						PYRENE	.01	mg/L	U	N	Y	U	U		CQMD7W	17:43
KY2002	SW8270	SW3520	N	0	1	1,2,4-TRICHLOROBENZENE	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						1,2-DICHLOROBENZENE	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						1,3-DICHLOROBENZENE	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						1,4-DICHLOROBENZENE	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2,2'-OXYBIS(1-CHLOROPROPANE)	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2,4,5-TRICHLOROPHENOL	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2,4,6-TRICHLOROPHENOL	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2,4-DICHLOROPHENOL	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2,4-DIMETHYLPHENOL	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2,4-DINITROPHENOL	.05	mg/L	U	N	Y		U		CQMD9W	18:22
						2,4-DINITROTOLUENE	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2,6-DINITROTOLUENE	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2-CHLORONAPHTHALENE	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2-CHLOROPHENOL	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2-METHYLNAPHTHALENE	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2-METHYLPHENOL	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						2-NITROANILINE	.05	mg/L	U	N	Y		U		CQMD9W	18:22
						2-NITROPHENOL	.01	mg/L	U	N	Y		U		CQMD9W	18:22
						3,3'-DICHLOROBENZIDINE	.05	mg/L	U	N	Y		U		CQMD9W	18:22
						3-NITROANILINE	.05	mg/L	U	N	Y		U		CQMD9W	18:22
						4,6-DINITRO-2-METHYLPHENOL	.05	mg/L	U	N	Y		U		CQMD9W	18:22

Validation Qualifier Data Entry Verification

Fort McClellan

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
KY2002	SW8270	SW3520	N 0 1	4-BROMOPHENYL PHENYL ETHER	.01	mg/L	U	N Y	U		CQMD9W	18:22
				4-CHLORO-3-METHYLPHENOL	.01	mg/L	U	N Y	U		CQMD9W	18:22
				4-CHLOROANILINE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				4-CHLOROPHENYL PHENYL ETHER	.01	mg/L	U	N Y	U		CQMD9W	18:22
				4-METHYLPHENOL	.01	mg/L	U	N Y	U		CQMD9W	18:22
				4-NITROANILINE	.05	mg/L	U	N Y	U		CQMD9W	18:22
				4-NITROPHENOL	.05	mg/L	U	N Y	U		CQMD9W	18:22
				ACENAPHTHENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				ACENAPHTHYLENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				ANTHRACENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				BENZ(A)ANTHRACENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				BENZO(A)PYRENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				BENZO(B)FLUORANTHENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				BENZO(GHI)PERYLENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				BENZO(K)FLUORANTHENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				BIS(2-CHLOROETHOXY)METHANE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				BIS(2-CHLOROETHYL) ETHER	.01	mg/L	U	N Y	U		CQMD9W	18:22
				BIS(2-ETHYLHEXYL) PHTHALATE	.0023	mg/L	J B	Y Y	B	06A	CQMD9W	18:22
				BUTYL BENZYL PHTHALATE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				CARBAZOLE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				CHRYSENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				DI-N-BUTYL PHTHALATE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				DI-N-OCTYL PHTHALATE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				DIBENZ(A,H)ANTHRACENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				DIBENZOFURAN	.01	mg/L	U	N Y	U		CQMD9W	18:22
				DIETHYL PHTHALATE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				DIMETHYL PHTHALATE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				FLUORANTHENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				FLUORENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				HEXACHLOROBENZENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				HEXACHLOROBUTADIENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				HEXACHLOROCYCLOPENTADIENE	.05	mg/L	U	N Y	U		CQMD9W	18:22
				HEXACHLOROETHANE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				INDENO(1,2,3-CD)PYRENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				ISOPHORONE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				N-NITROSODI-N-PROPYLAMINE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				N-NITROSODIPHENYLAMINE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				NAPHTHALENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				NITROBENZENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				PENTACHLOROPHENOL	.05	mg/L	U	N Y	U		CQMD9W	18:22
				PHENANTHRENE	.01	mg/L	U	N Y	U		CQMD9W	18:22
				PHENOL	.01	mg/L	U	N Y	U		CQMD9W	18:22
				PYRENE	.01	mg/L	U	N Y	U		CQMD9W	18:22

APPENDIX G

VARIANCES/NONCONFORMANCES

INTERNATIONAL TECHNOLOGY CORPORATION

Variance No: PARCEL122FEB.VR1

Linked w/NC No: x

Date of Issue: 2\28\99

Page _1 of 1__

Project Name: **Fort McClellan** - CK05

Project Number: **774645**

-Variance Report -

I.Description: (by the person identifying the change)

FORMER FOG OIL STORAGE AREA PARCEL 122(7)

Two proposed subsurface soil samples PPMP-122-GP02 and PPMP-122-GP03 were relocated from their proposed sample locations.

Identified by: Jeffrey Tarr, PG - IT Site Manager

Date: 2-28-99

II. Justification For Variance

Subsurface soil samples PPMP-122-GP02 and PPMP-122-GP03 were relocated from there proposed locations. The two subsurface soil samples were relocated to areas within the parcel that detected the greatest concentrations of diesel range organics in surface soil. Relocating the samples will more accurately determine the presence or absence of subsurface soil ntamination. Subsurface soil sample PPMP-122-GP02 was moved approximately 50 feet southwest of its proposed location. Subsurface soil sample PPMP-122-GP03 was moved approximately 150 feet east of its proposed location.

III. Applicable Document/Work Plan: (by the person identifying the change)

Final Site-Specific Field Sampling Plan Former Fog Oil Storage Area Parcel 122(7), December 1998.

Distribution List:
1. Jeanne Yacoub, IT Project Manager
2. Steve Moran, IT Technical Lead
3. Jeffrey Tarr, IT Site Manager
4. Randy McBride, IT QA Officer
5. Mr. Ellis Pope, US Army Corps of Engineers
6. Mr. Ross McCollum, US Army Corps of Engineers

- Signatures -

Requested by: Jeffrey Tarr, PG - IT Site Manager 3/29/99 Date

Approved by: Ellis C. Pope 11/5/99 Date

Project Manager Approval: Jeanne Yacoub 5/5/99 Date

QA Approval:Randy McBride 3/30/99 Date

DRAFT SITE INVESTIGATION REPORT AND DRAFT DECISION DOCUMENT FOR FOG OIL STORAGE AREA WEST OF THE SKEET RANGE PARCEL 122(7) FORT McCLELLAN, ALABAMA RESPONSE TO COMMENTS BY ENVIRONMENTAL PROTECTION AGENCY REGION 4

As addressed in a letter from Bart Reedy, EPA, to Ron Levy, BRAC Environmental Coordinator, October 27, 2000.

Comment: **During the last Base Closure Team meeting on 10/24-10/25/00, the results of several Site Investigations were discussed. During the presentations and subsequent discussions, the comments and concerns that had been presented were addressed. Additionally, some of the pending Site Investigations and Decision Documents yet to be reviewed were presented.**

Based on the above presentations and discussions, all of the comments and concerns were addressed for Parcel 122(7) aka Former Fog Oil Storage Area. I agree with the finds presented in the Decision Document and approve the Site Investigation Report. Please forward the final version of these documents for inclusion in EPA files. Please consider this a final approval letter for the final version of the documents referenced.

I concur with the Decision Document and approve the Report as written.

Response: Comments noted.

DRAFT SITE INVESTIGATION REPORT AND DRAFT DECISION DOCUMENT FOR FOG OIL STORAGE AREA WEST OF THE SKEET RANGE PARCEL 122(7) FORT McCLELLAN, ALABAMA RESPONSE TO COMMENTS BY ADEM

COMMENTS ON DRAFT SITE INVESTIGATION REPORT

General Comments

Comment 1: **ADEM is in general agreement with the conclusions and recommendations of the Draft Site Investigation Report for the Former Fog Oil Storage Area West of the Skeet Range, Parcel 122(7). Based on the analytical results from samples collected during the Site Investigation, it appears that operations at the site have had minimal impact on the environment, and the potential threat to human and ecological receptors from the site is low.**

Response: Comment noted.

Specific Comments

Comment 1: **Figure 4-2: The groundwater contours are based on three monitoring wells. Please dash the contours where they are inferred.**

Response: A Figure 4-2 (groundwater elevation map) was not included in the draft SI report because no wells were installed at the site. IT is unsure what the comment refers to.