

**Final**

**Site Investigation Report**  
**Former Printing Plant, Building 144, Parcel 171(7)**

**Fort McClellan**  
**Calhoun County, Alabama**

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

**October 2000**

**Revision 1**

# Table of Contents

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	<b>Page</b>
List of Tables .....	iii
List of Figures .....	iii
List of Acronyms .....	iv
Executive Summary .....	ES-1
1.0 Introduction .....	1-1
1.1 Project Description .....	1-1
1.2 Purpose and Objectives .....	1-2
1.3 Site Description and History .....	1-2
2.0 Previous Investigations .....	2-1
3.0 Current Site Investigation Activities .....	3-1
3.1 Environmental Sampling .....	3-1
3.1.1 Surface Soil Sampling .....	3-1
3.1.2 Subsurface Soil Sampling .....	3-1
3.1.3 Well Installation .....	3-2
3.1.4 Water Level Measurements .....	3-4
3.1.5 Groundwater Sampling .....	3-4
3.2 Surveying of Sample Locations .....	3-4
3.3 Analytical Program .....	3-4
3.4 Sample Preservation, Packaging, and Shipping .....	3-5
3.5 Investigation-Derived Waste Management and Disposal .....	3-5
3.6 Variances/Nonconformances .....	3-6
3.6.1 Variances .....	3-6
3.6.2 Nonconformances .....	3-6
3.7 Data Quality .....	3-6
4.0 Site Characterization .....	4-1
4.1 Regional and Site Geology .....	4-1
4.1.1 Regional Geology .....	4-1
4.1.2 Site Geology .....	4-4
4.2 Site Hydrology .....	4-5
4.2.1 Surface Hydrology .....	4-5

## Table of Contents (Continued)

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	<b>Page</b>
4.2.2 Hydrogeology .....	4-5
5.0 Summary of Analytical Results.....	5-1
5.1 Surface Soil Sample Results.....	5-2
5.2 Subsurface Soil Sample Results .....	5-3
5.3 Groundwater Sample Results.....	5-4
6.0 Summary and Conclusions and Recommendations .....	6-1
7.0 References .....	7-1
Attachment 1 - List of Abbreviations and Acronyms	
Appendix A - Sample Collection Logs	
Appendix B - Boring Logs and Well Logs	
Appendix C - Well Development Logs	
Appendix D - Survey Data	
Appendix E - Summary of Validated Analytical Data	
Appendix F - Data Validation Summary Report	
Appendix G - Summary Statistics for Background Media, Fort McClellan, Alabama	

## **List of Tables**

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<b>Table</b>	<b>Title</b>	<b>Follows Page</b>
3-1	Sampling Locations and Rationale	3-1
3-2	Surface and Subsurface Soil Sample Designations and QA/QC Sample Quantities	3-1
3-3	Temporary Well Construction Summary	3-2
3-4	Groundwater Elevations	3-4
3-5	Groundwater Sample Designations and QA/QC Sample Quantities	3-4
3-6	Groundwater Field Parameters	3-4
5-1	Surface Soil Analytical Results	5-2
5-2	Subsurface Soil Analytical Results	5-2
5-3	Groundwater Analytical Results	5-2

## **List of Figures**

---

<b>Figure</b>	<b>Title</b>	<b>Follows Page</b>
1-1	Site Location Map	1-2
1-2	Site Map	1-3
3-1	Sample Location Map	3-1
4-1	Groundwater Elevations	4-5

## ***List of Acronyms***

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See Attachment 1.

## ***Executive Summary***

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In accordance with Contract Number DACA21-96-D-0018, Task Order CK05, IT Corporation (IT) completed a site investigation (SI) at the Former Printing Plant, Building 144, Parcel 171(7) at Fort McClellan (FTMC), Calhoun County, Alabama. The SI was conducted to determine whether chemical constituents are present at the Former Printing Plant, Building 144, Parcel 171(7) and, if present, whether the concentrations would present an unacceptable risk to human health or the environment. The SI at the Former Printing Plant, Building 144, Parcel 171(7) consisted of the sampling and analyses of three surface soil samples, three subsurface soil samples, and three groundwater samples. In addition, three temporary groundwater monitoring wells were installed in the residuum groundwater zone to facilitate groundwater sample collection and to provide site-specific geological and hydrogeological characterization information.

The analytical results indicate that metals, volatile organic compounds, and semivolatile organic compounds (SVOC) were detected in environmental media sampled. The analytical results were compared to human health site-specific screening levels (SSSL) and ecological screening values (ESV). These SSSLs and ESVs were developed by IT as part of the human health and ecological risk evaluations associated with SIs being performed under the Base Realignment and Closure Environmental Restoration Program at FTMC. Additionally, metals results exceeding the SSSLs and ESVs were compared to media-specific background metals concentrations. SVOC concentrations exceeding SSSLs and ESVs in surface soil samples were compared to polynuclear aromatic hydrocarbon (PAH) background screening values where available (IT, 2000b).

The potential impact to human receptors is expected to be minimal. The metals detected in site media that exceeded residential human health SSSLs were below the background concentrations, and thus, do not pose an unacceptable risk to future human receptors. The concentration of the PAH benzo(a)pyrene exceeded the residential human health SSSL at one sample location, but was less than the PAH background. Benzo(a)pyrene was not detected in any of the other samples collected at the Former Printing Plant, Building 144, Parcel 171(7). Given the extremely limited impacted area, benzo(a)pyrene is not expected to pose an unacceptable risk to human health in the residential land-use scenario.

Several metals were detected in site media at concentrations exceeding residential human health SSSLs but within background concentrations. Five metals were detected in surface soil samples at concentrations exceeding ESVs and background concentrations but within the range of measured background values. The PAH benzo(a)pyrene was also detected at one surface soil sample location at a concentration exceeding its residential human health SSSL and ESV but below the background screening level. Benzo(a)pyrene was not detected in any other sample collected at the Former Printing Plant, Building 144, Parcel 171(7). Three other PAH compounds were detected at the same surface soil sample location as benzo(a)pyrene at concentrations exceeding ESVs, but below PAH background screening levels.

Although several metals and four PAHs were detected in site media at concentrations exceeding ESVs, the potential impact to ecological receptors is expected to be minimal. This conclusion is based on the limited impacted area and the future residential land use of the Former Printing Plant, Building 144, Parcel 171(7) (based on the FTMC 1997 *Fort McClellan Comprehensive Reuse Plan*). Under this land-use scenario, substantial ecological habitat is not expected to be present and is expected to be minimally impacted.

Based on the results of the SI, past operations at the Former Printing Plant, Building 144, Parcel 171(7) do not appear to have adversely impacted the environment. Furthermore, the metals and organic compounds detected in site media do not pose an unacceptable risk to human health or the environment in the residential land-use scenario. Therefore, IT recommends “No Further Action” with regard to hazardous, toxic, and radiological waste at the Former Printing Plant, Building 144, Parcel 171(7).

## **1.0 Introduction**

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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, Mobile District (USACE). The USACE has contracted with IT Corporation (IT) to perform the site investigation (SI) at the Former Printing Plant, Building 144, Parcel 171(7) through Prime Contract DACA21-96-D-0018, Task Order CK05.

This SI report has been prepared to present specific information and results compiled from the SI, including field sampling and analysis and monitoring well installation activities conducted at the Former Printing Plant, Building 144, Parcel 171(7).

### **1.1 Project Description**

The Former Printing Plant, Building 144, Parcel 171(7) was identified as an area to be investigated prior to property transfer. The Former Printing Plant, Building 144, Parcel 171(7) was identified 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 and a site-specific safety and health plan (SSHP) attachment were finalized in December 1998 (IT, 1998a). The SFSP and SSHP were prepared to provide technical guidance for sample collection and analysis at the Former Printing Plant, Building 144, Parcel 171(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 and quality assurance plan.

The SI included field work to collect three surface soil samples, three subsurface soil samples, and three groundwater samples to determine if potential site-specific chemicals are present at the

Former Printing Plant, Building 144, Parcel 171(7), and to provide data useful for supporting any future corrective measures and closure activities.

## **1.2 Purpose and Objectives**

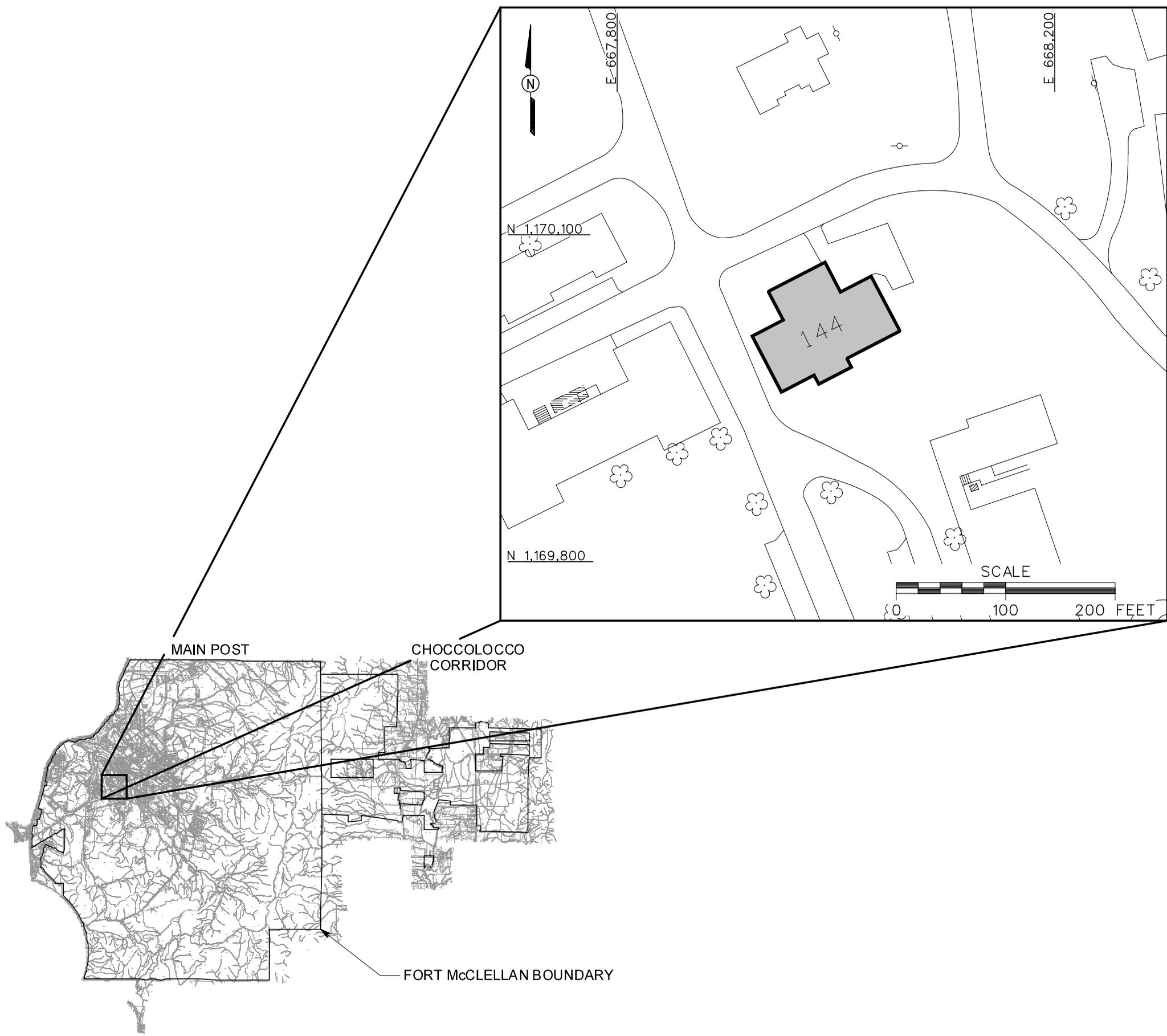
The SI program was designed to collect data from site media and provide a level of defensible data and information in sufficient detail to determine whether chemical constituents are present at the Former Printing Plant, Building 144, Parcel 171(7) at concentrations that would present an unacceptable risk to human health or the environment. The conclusions of the SI in Section 6.0 are based on the comparison of the analytical results to human health site-specific screening levels (SSSL) and ecological screening values (ESV) for FTMC. The SSSLs and ESVs were developed by IT as part of the human health and ecological risk evaluations associated with SIs being performed under the BRAC Environmental Restoration Program at FTMC. The SSSLs, ESVs, and polynuclear aromatic hydrocarbon (PAH) background screening values are presented in the *Final Human Health and Ecological Screening Values and PAH Background Summary Report* (IT, 2000b). The PAH background screening values were developed by IT at the direction of the BRAC Cleanup Team to address the occurrence of PAH compounds in surface soils as a result of anthropogenic activities at FTMC. Background metals screening values are presented in the final background metals survey report (Science Applications International Corporation [SAIC], 1998).

Based on the conclusions, the BRAC Cleanup Team will decide to propose “No Further Action” at the site or to conduct additional work at the site.

## **1.3 Site Description and History**

The Former Printing Plant, Building 144 is located in the central part of the Main Post (Figure 1-1). The study area in and around Building 144 covers slightly less than 1 acre. An information processing center was recently operated in Building 144 and the site and surrounding area is well developed. The buildings that were previously used for the Post Headquarters, Military Police Station, Personnel Office, and other administrative activities surround the study site. With base closure in September 1999, these activities stopped and the buildings were vacated. Printing operations were conducted on the first floor of Building 144 from 1969 to 1974, however, there is not any evidence remaining of the former printing operations at this location. In 1974, printing operations were moved from Building 144 to Building 2051. Potential printing materials used at this facility may have included petroleum hydrocarbons, printing fluids, solvents (including tetrachloroethene and petroleum naphtha),

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**LEGEND**

-  UNIMPROVED ROADS AND PARKING
-  PAVED ROADS AND PARKING
-  BUILDING
-  TREES / TREELINE
-  PARCEL BOUNDARY
-  UTILITY POLE

**FIGURE 1-1**  
**SITE LOCATION MAP**  
**FORMER PRINTING PLANT**  
**BUILDING 144**  
**PARCEL 171(7)**

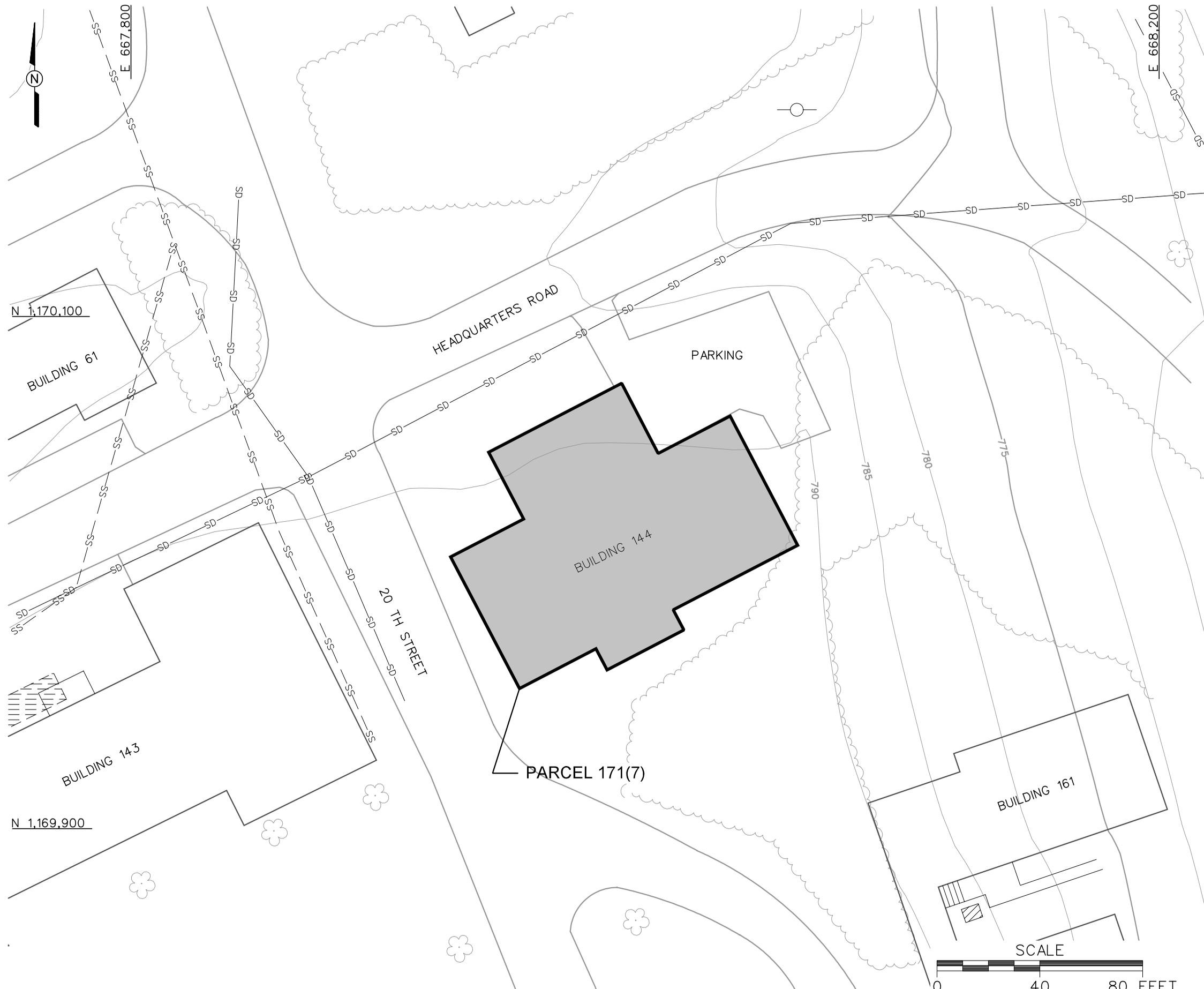
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 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
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metals, and inks. Currently, the site has unrestricted access.

The South Branch of Cane Creek is located at least 600 feet northeast of the site, while Remount Creek is located at least 1,250 feet west of the site. Shallow groundwater at the site is probably controlled by surface drainage and/or topography. Site elevation is approximately 790 to 795 feet above sea level as established by the National Geodetic Vertical Datum. Figure 1-2 is a site map showing Building 144, topographic features, and site boundaries.

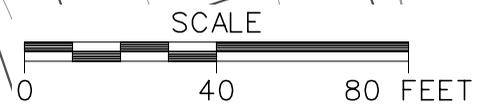
The soil type at the Former Printing Plant, Building 144 is Montevallo. Montevallo soils are severely eroded, shaly silty clay soils. These soils are formed either by erosional forces, surface runoff, or natural reworking processes. Colors are typically yellowish-brown. The depth to bedrock is usually 1.5 feet or greater, while the depth to groundwater is typically 20 feet or greater. The high erosion hazard, low capacity for available moisture, and thin root zone make this soil unsuited for cultivation (U.S. Department of Agriculture, 1961).

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	UNIMPROVED ROADS AND PARKING
	PAVED ROADS AND PARKING
	BUILDING
	TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
	TREES / TREELINE
	PARCEL BOUNDARY
	UTILITY POLE
	SANITARY SEWER LINE
	STORM DRAINAGE LINE

**FIGURE 1-2**  
**SITE MAP**  
**FORMER PRINTING PLANT**  
**BUILDING 144**  
**PARCEL 171(7)**  
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## **2.0 Previous Investigations**

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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 (including migration) has occurred
2. Areas where only release or disposal of petroleum products has occurred
3. Areas of contamination below action levels
4. Areas where all necessary remedial actions have been taken
5. Areas of known contamination with removal and/or remedial action underway
6. Areas of known contamination where required response actions have not been taken
7. Areas not evaluated or that require further evaluation.

The EBS was conducted in accordance with the 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), the U.S. Environmental Protection Agency (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 historic maps and aerial photographs were reviewed to document historic 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. Information could not be found to indicate that previous investigations were performed at this site.

The Former Printing Plant, Building 144 was identified as a Category 7 CERFA site: areas that are not evaluated or require further evaluation.

## **3.0 Current Site Investigation Activities**

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### **3.1 Environmental Sampling**

The environmental sampling performed during the SI at the Former Printing Plant, Building 144, Parcel 171(7) included the collection of surface soil samples, subsurface soil samples, and groundwater samples for chemical analysis. The sample locations were determined by observing site physical characteristics noted during a site walk-over, and by reviewing historical documents pertaining to activities conducted at the site. The sample locations, media, and rationale are summarized in Table 3-1. Samples were submitted for laboratory analyses of site-related parameters listed in Section 3.3.

#### **3.1.1 Surface Soil Sampling**

Surface soil samples were collected from three locations at the Former Printing Plant, Building 144, Parcel 171(7), as shown on Figure 3-1. Surface soil sampling locations and rationale are presented in Table 3-1. Surface soil sample designations and quality assurance/quality control (QA/QC) samples are listed in Table 3-2. Surface soil sampling locations were determined in the field by the on-site geologist based on the sampling rationale, presence of surface structures, site topography, and buried and overhead utilities.

**Sample Collection.** Surface soil samples were collected from the upper 1 foot of soil with a 3-inch diameter stainless-steel hand auger using the methodology specified in Section 4.9 of the SAP (IT, 2000a). Surface soil 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). Samples for volatile organic compound (VOC) analyses were collected directly from the sampler with three EnCore® samplers. The remaining portion of the sample was transferred to a clean stainless-steel bowl, homogenized, and placed in the appropriate sample containers. The samples were analyzed for the parameters listed in Table 3-2 using methods outlined in Section 3.3. Sample collection logs are included in Appendix A.

#### **3.1.2 Subsurface Soil Sampling**

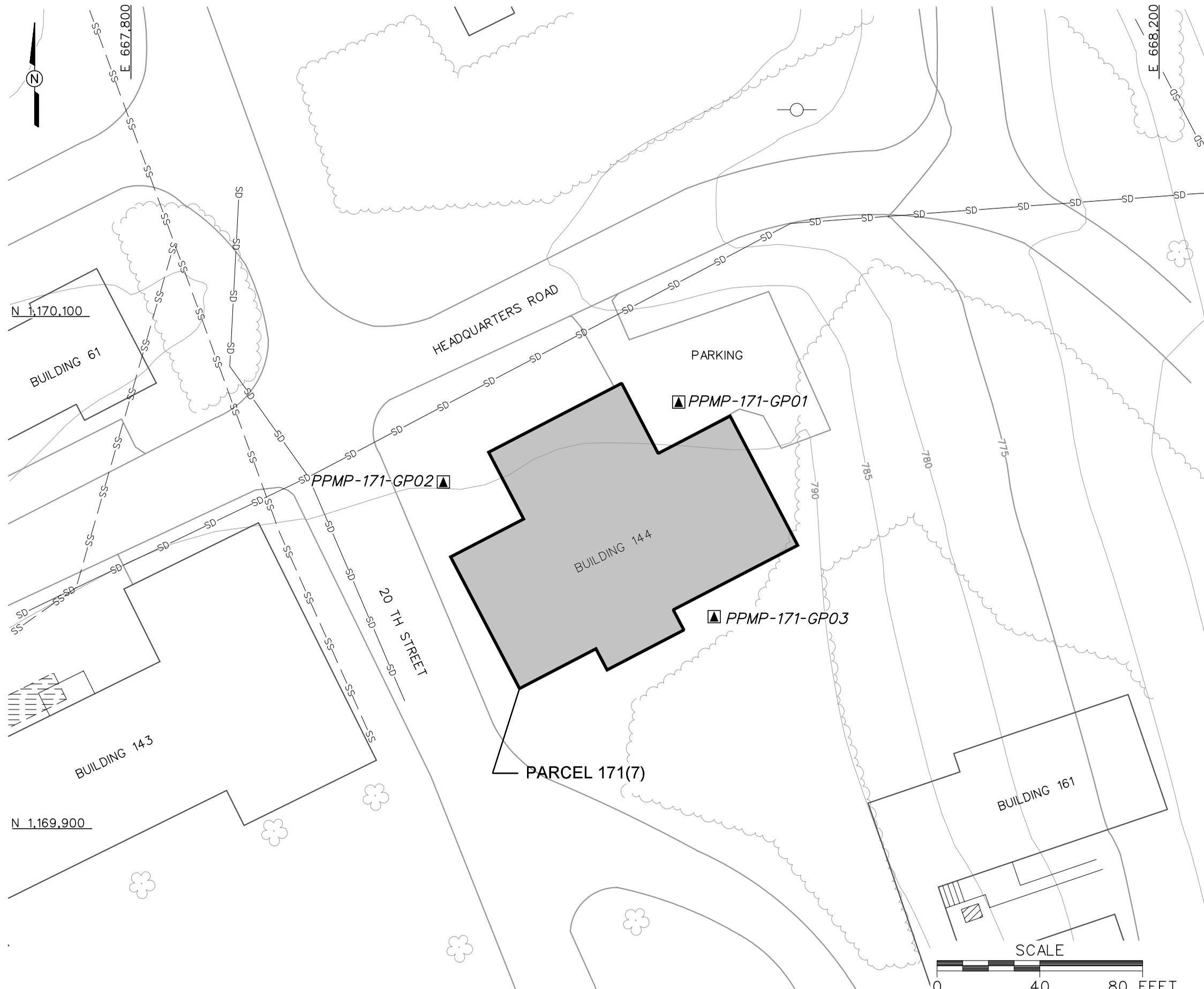
Subsurface soil samples were collected from three soil borings at the Former Printing Plant, Building 144, Parcel 171(7) as shown on Figure 3-1. Subsurface sampling locations and rationale are presented in Table 3-1. Subsurface soil sample designations, depths, and QA/QC samples are listed in Table 3-2. Soil boring sampling locations were determined in the field by the on-site geologist based on the sampling rationale, presence of surface structures, site

**Table 3-1**

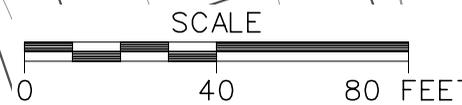
**Sampling Locations and Rationale  
Former Printing Plant, Building 144, Parcel 171(7)  
Fort McClellan, Calhoun County, Alabama**

Sample Location	Sample Media	Sample Location Rationale
PPMP-171-GP01	Surface Soil Subsurface Soil Groundwater	Surface soil, subsurface soil and groundwater samples were collected at the northeast door of Building 144. Sample location represents an exit point (via foot traffic, etc.) for site-specific contaminants to be deposited onto surface or subsurface soil and from there to groundwater via runoff or percolation.
PPMP-171-GP02	Surface Soil Subsurface Soil Groundwater	Surface soil, subsurface soil and groundwater samples were collected at the northwest door of Building 144. Sample location represents an exit point (via foot traffic, etc) for site-specific contaminants to be deposited onto surface or subsurface soil and from there to groundwater via runoff or percolation.
PPMP-171-GP03	Surface Soil Subsurface Soil Groundwater	Surface soil, subsurface soil and groundwater samples were collected at the south door of Building 144. Sample location represents an exit point (via foot traffic, etc) for site-specific contaminants to be deposited onto surface or subsurface soil and from there to groundwater via runoff or percolation.

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	UNIMPROVED ROADS AND PARKING
	PAVED ROADS AND PARKING
	BUILDING
	TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
	TREES / TREELINE
	PARCEL BOUNDARY
	UTILITY POLE
	SANITARY SEWER LINE
	STORM DRAINAGE LINE
	GROUNDWATER, SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION



**FIGURE 3-1**  
**SAMPLE LOCATION MAP**  
**FORMER PRINTING PLANT**  
**BUILDING 144**  
**PARCEL 171(7)**  
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**Table 3-2**  
**Surface and Subsurface Soil Sample Designations and QA/QC Sample Quantities**  
**Former Printing Plant, Building 144, Parcel 171(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-171-GP01	PPMP-171-GP01-SS-KD0001-REG	0 - 1			PPMP-171-GP01-SS-KD0001-MS	TCL VOCs, TCL SVOCs
	PPMP-171-GP01-DS-KD0002-REG	6 - 9			PPMP-171-GP01-SS-KD0001-MSD	TAL Metals
PPMP-171-GP02	PPMP-171-GP02-SS-KD0003-REG	0 - 1				TCL VOCs, TCL SVOCs
	PPMP-171-GP02-DS-KD0004-REG	6 - 9				TAL Metals
PPMP-171-GP03	PPMP-171-GP03-SS-KD0005-REG	0 - 1	PPMP-171-GP03-SS-KD0006-FD	PPMP-171-GP03-SS-KD0007-FS		TCL VOCs, TCL SVOCs
	PPMP-171-GP03-DS-KD0008-REG	9 - 11				TAL Metals

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.  
 REG - Field sample.  
 SVOC - Semivolatile organic compound.  
 TAL - Target analyte list.  
 TCL - Target compound list.  
 VOC - Volatile organic compound.

topography, and buried and overhead utilities. IT contracted TEG, Inc., a direct-push technology subcontractor, to assist in subsurface soil sample collection.

**Sample Collection.** Subsurface soil samples were collected from soil borings at a depth greater than 1 foot below ground surface (bgs) in the unsaturated zone. The soil borings were advanced and soil 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 the parameters listed in Table 3-2 using methods outlined in Section 3.3.

Soil samples were collected continuously to 12 feet bgs or until direct-push sampler refusal was encountered. Subsurface soil samples were field screened using a PID in accordance with Section 4.7.1.1 of the SAP (IT, 2000a) to measure samples for volatile organic vapors. The sample showing 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 groundwater was submitted for analyses. Samples to be analyzed for VOCs were collected directly from the sampler with three EnCore® samplers. The remaining portion of the sample was transferred to a clean stainless-steel bowl, homogenized, and placed in the appropriate sample containers. Samples submitted for laboratory analyses are summarized in Table 3-2. The on-site geologist at each borehole constructed a detailed lithological log. The lithological log for each borehole is included in Appendix B.

At the completion of soil sampling, boreholes were abandoned with hydrated bentonite chips following borehole abandonment procedures summarized in Appendix B of the SAP (IT, 2000a).

### **3.1.3 Well Installation**

Three temporary wells were installed in the residuum groundwater zone at the Former Printing Plant, Building 144, Parcel 171(7) to collect groundwater samples for laboratory analyses. The well/groundwater sample locations are shown on Figure 3-1. Table 3-3 summarizes the construction details of the temporary wells installed at the Former Printing Plant, Building 144, Parcel 171(7). The temporary well logs are included in Appendix B.

IT contracted Miller Drilling, Inc., to install the temporary wells with a hollow-stem auger rig in January 1999 at the well/groundwater sample locations shown on Figure 3-1. The wells were installed following procedures outlined in Section 4.7 and Appendix C of the SAP (IT, 2000a). The boreholes at these locations were advanced with a 4.25-inch inside diameter (ID) hollow-stem auger from ground surface to the first water-bearing zone in residuum at the well location.

**Table 3-3**

**Temporary Well Construction Summary  
Former Printing Plant, Building 144, Parcel 171(7)  
Fort McClellan, Calhoun County, Alabama**

Temporary Well	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Well Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Sump Interval (ft bgs)	Well Material
PPMP-171-GP01	1170065.97	668013.77	791.91	791.63	40.0	15	24.75 - 39.75	39.75 - 40.00	2" ID Sch. 40 PVC
PPMP-171-GP02	1170034.74	667922.20	793.86	793.54	38.5	15	23.25 - 38.25	38.25 - 38.50	2" ID Sch. 40 PVC
PPMP-171-GP03	1169982.19	668027.55	794.95	794.66	42.5	15	27.25 - 42.25	42.25 - 42.50	2" ID Sch. 40 PVC

All temporary wells installed with an auger drill rig using a 4 1/4-inch inside diameter hollow-stem auger.

Horizontal coordinates were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum (NAD83), 1983.

Elevations were referenced to the North American Vertical Datum of 1988 (NAVD88).

2" ID Sch. 40 PVC - 2-inch inside diameter, Schedule 40, polyvinyl chloride.

bgs - Below ground surface.

ft - Feet.

msl - Mean sea level.

TOC - Top of casing.

The borehole was augered to the depth of direct-push sampler refusal and samples were collected at the depth of direct-push refusal to the bottom of the borehole. A 2-foot long, 2-inch ID carbon steel split-spoon sampler was driven at 5-foot intervals to collect residuum for observing and describing lithology. Where spoon refusal occurred, the auger was advanced until the first water-bearing zone was encountered. The on-site geologist logging the auger boreholes continued the lithological log for each borehole from the depth of split-spoon sampler refusal to the bottom of the auger borehole by logging the auger drill cuttings. The drill cuttings were logged to determine lithologic changes and the approximate depth of groundwater encountered during drilling. This information was used to determine the optimal placement of the monitoring well screen interval and to provide site-specific geologic and hydrogeologic information. The lithological log for each borehole is included in Appendix B.

Upon reaching the target depth, a 15-foot length of 2-inch ID, 0.010-inch factory slotted, Schedule 40 polyvinyl chloride (PVC) screen with a 3-inch PVC end cap was placed through the auger to the bottom of the borehole. The screen and end cap were attached to 2-inch ID, flush-threaded Schedule 40 PVC riser. A number 1 filter sand was tremied around the well screen to approximately 2 feet above the top of the well screen as the augers were removed. The wells were surged approximately 10 minutes, or until no more settling of the filter sand occurred inside the borehole. A bentonite seal, consisting of approximately 2 feet of bentonite chips, was placed immediately on top of the filter sand and hydrated with potable water. If the bentonite seal was installed below the water table surface, the bentonite chips were allowed to hydrate in the groundwater. The bentonite seal placement and hydration followed procedures in Appendix C of the SAP (IT, 2000a). A locking well cap was placed on the PVC well stickup. The temporary well surface completion included attaching plastic sheeting around the PVC riser using duct tape. Additionally, sand bags were used to secure the sheeting to the ground surface around the temporary well.

The temporary wells were developed by surging and pumping with a submersible pump in accordance with methodology outlined in Section 4.8 and Appendix C of the SAP (IT, 2000a). Development continued until the water turbidity was equal to or less than 20 nephelometric turbidity units or for a maximum of 4 hours. The well development logs are included in Appendix C.

### **3.1.4 Water Level Measurements**

The depth to groundwater was measured in the temporary wells installed at the Former Printing Plant, Building 144, Parcel 171(7) in April 1999 following procedures outlined in Section 4.18 of the SAP (IT, 2000a). Depth to groundwater was measured with an electronic water level

meter. The meter probe and cable were cleaned between use at each well following decontamination methodology presented in Section 4.10 of the SAP (IT, 2000a). Measurements were referenced to the top of the PVC well casing. A summary of groundwater level measurements is presented in Table 3-4.

### **3.1.5 Groundwater Sampling**

Groundwater was sampled from the temporary wells installed at the Former Printing Plant, Building 144, Parcel 171(7). The well/groundwater sampling locations are shown on Figure 3-1. The groundwater sampling locations and rationale are listed in Table 3-1. The groundwater sample designations and QA/QC sample quantities are listed in Table 3-5.

**Sample Collection.** Groundwater sampling was performed at the temporary well locations following procedures outlined in Section 4.9 of the SAP (IT, 2000a). Groundwater was sampled after purging a minimum three well volumes and field parameters (temperature, pH, specific conductivity, oxidation-reduction (Redox) potential, and turbidity) stabilized. Purging and sampling were performed with a submersible pump equipped with Teflon™ tubing. Field parameters were measured using a Hydrolab® water quality unit and are summarized in Table 3-6. Sample collection logs are included in Appendix A. The samples were analyzed for the parameters listed in Section 3.3.

### **3.2 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 (NAD83), 1983. Elevations were referenced to the North American Vertical Datum of 1988 (NAVD88). Horizontal coordinates and elevations are included in Appendix D.

### **3.3 Analytical Program**

Samples collected during the SI were analyzed for various chemical properties. The specific suite of analyses performed is based on the potential site-specific chemicals historically at the site and EPA, ADEM, FTMC, and USACE requirements. Samples collected from the Former Printing Plant, Building 144, Parcel 171(7) were analyzed for the following parameters:

- Target compound list VOCs - Method 5035/8260B
- Target compound list semivolatle organic compounds (SVOC) - Method 8270C
- Target analyte list metals - Method 6010B/7000.

**Table 3-4**

**Groundwater Elevations  
Former Printing Plant, Building 144, Parcel 171(7)  
Fort McClellan, Calhoun County, Alabama**

Well Location	Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
PPMP-171-GP01	22-Apr-99	25.38	791.63	791.91	766.25
PPMP-171-GP02	22-Apr-99	16.69	793.54	793.86	776.85
PPMP-171-GP03	22-Apr-99	24.75	794.66	794.95	769.91

Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

BTOC - Below top of casing.

ft - Feet.

msl - Mean sea level.

**Table 3-5**

**Groundwater Sample Designations and QA/QC Sample Quantities  
Former Printing Plant, Building 144, Parcel 171(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-171-GP01	PPMP-171-GP01-GW-KD3001-REG	29.60-39.75			PPMP-171-GP01-GW-KD3001-MS PPMP-171-GP01-GW-KD3001-MSD	TCL VOCs, TCL SVOCs TAL Metals
PPMP-171-GP02	PPMP-171-GP02-GW-KD3002-REG	25.85-38.25				TCL VOCs, TCL SVOCs TAL Metals
PPMP-171-GP03	PPMP-171-GP03-GW-KD3003-REG	30.35-42.25	PPMP-171-GP03-GW-KD3004-FD	PPMP-171-GP03-GW-KD3005-FS		TCL VOCs, TCL SVOCs TAL Metals

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.

REG - Field sample.

SVOC - Semivolatile organic compound.

TAL - Target analyte list.

TCL - Target compound list.

VOC - Volatile organic compound.

**Table 3-6**

**Groundwater Field Parameters  
Former Printing Plant, Building 144, Parcel 171(7)  
Fort McClellan, Calhoun County, Alabama**

Sample Location	Date	Media	Specific Conductivity (µmhos/cm)	Dissolved Oxygen (ppm)	Redox Potential (mV)	Temperature (°C)	Turbidity (NTUs)	pH (Std units)
PPMP-171-GP01	18-Feb-99	GW	85	0.46	229.40	18.61	201.20	5.14
PPMP-171-GP02	17-Feb-99	GW	100	0.37	115.20	18.35	264.00	5.47
PPMP-171-GP03	18-Feb-99	GW	70	3.10	171.10	18.95	2.03	5.54

°C - Degrees Celsius.

GW - Groundwater.

µmhos/cm - Micromhos per centimeter.

mV - Millivolts.

NTUs - Nephelometric turbidity units.

ppm - Parts per million.

Std units - Standard units.

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.

### ***3.4 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 Section 5.0, Table 5-1, of Appendix B of the SAP (IT, 2000a). Sample documentation and chain-of-custodies 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.

### ***3.5 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 from the field sampling at the Former Printing Plant, Building 144, Parcel 171(7) was segregated as follows:

- Drill cuttings
- Purge water from well development and sampling activities, and decontamination fluids
- Spent well materials, and personal protective equipment.

Solid IDW was stored inside the fenced area surrounding Buildings 335 and 336 in lined rolloff bins prior to characterization and final disposal. Solid IDW was characterized using toxicity characteristic leaching procedure analyses. Based on the results, drill cuttings, spent well

materials, and personal protective equipment generated during the SI at the Former Printing Plant, Building 144, Parcel 171(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 wash rack. Liquid IDW was characterized by VOC, 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.

### **3.6 Variances/Nonconformances**

#### **3.6.1 Variances**

There were not any variances to the SFSP recorded during completion of the SI at the Former Printing Plant, Building 144, Parcel 171(7).

#### **3.6.2 Nonconformances**

There were not any nonconformances to the SFSP recorded during completion of the SI at the Former Printing Plant, Building 144, Parcel 171(7).

### **3.7 Data Quality**

The field sample results 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 quality assurance plan; and standard, accepted methods and procedures. Sample collection logs pertaining to the collection of the samples were reviewed and organized for this report and are included in Appendix A. As discussed in Section 3.6, there were not any variances or nonconformances identified either in the field or during the review of sample collection logs that may have impacted the usability of the data.

**Data Validation.** A complete (100 percent) Level III data validation effort was performed on the reported analytical data. 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 during the validation effort. 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 qualified data were used in the comparison to

the SSSLs and ESVs developed by IT. Rejected data (assigned an “R” qualifier) were not used in the comparison to the SSSLs and ESVs.

The data presented in this report, except where qualified, meet the principle data quality objective for this SI.

## **4.0 Site Characterization**

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Subsurface investigations performed at the Former Printing Plant, Building 144, Parcel 171(7) provided soil, bedrock, and groundwater data. These data were used to characterize the geology and hydrogeology of the site.

### **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 is comprised 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 appear to dominate the unit and consist primarily of coarse-grained, vitreous quartzite, and friable, fine- to coarse-grained, orthoquartzitic sandstone, both of which locally contain conglomerate. The fine-grained facies consist 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 southeast of the Main Post as mapped by Warman and Causey (1962) and Osborne and Szabo (1984), and immediately to the west of Reilly Airfield (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 weathers 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 based on fossil data.

The Jacksonville Thrust Fault is the most significant structural geologic feature near 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 comprising 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**

Soils underlying the Former Printing Plant, Building 144, Parcel 171(7) are mapped as Montevallo (MtD3) (U.S. Department of Agriculture, 1961). Montevallo soils are severely eroded, shaly silty clay soils. These soils are formed in the residuum of interbedded shale and fine-grained sandstone or limestone.

Bedrock beneath the Former Printing Plant, Building 144, Parcel 171(7) is mapped as the Ordovician/Mississippian Athens Shale, and Floyd Shale, undifferentiated. These units occur within the eroded "window" in the uppermost structural thrust sheet at FTMC and underlie much of the developed area of the Main Post.

Three borings were installed at the Former Printing Plant, Building 144, Parcel 171(7) to collect lithologic data and characterize the underlying geology. Total depth of the borings ranged from 40 to 46 feet bgs across the site. Based on this information, a thin zone of sand and gravel is present from ground surface to an average depth of 1.5 feet bgs and overlies predominately clay and silt deposits. Underlying the clay and silt, weathered black to gray, dry shale was encountered at an average depth of 35 feet bgs.

## **4.2 Site Hydrology**

### **4.2.1 Surface Hydrology**

Precipitation in the form of rainfall averages about 54 inches annually in Anniston, Alabama, with infiltration rates annually exceeding evapotranspiration rates. The major surface water features at 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.

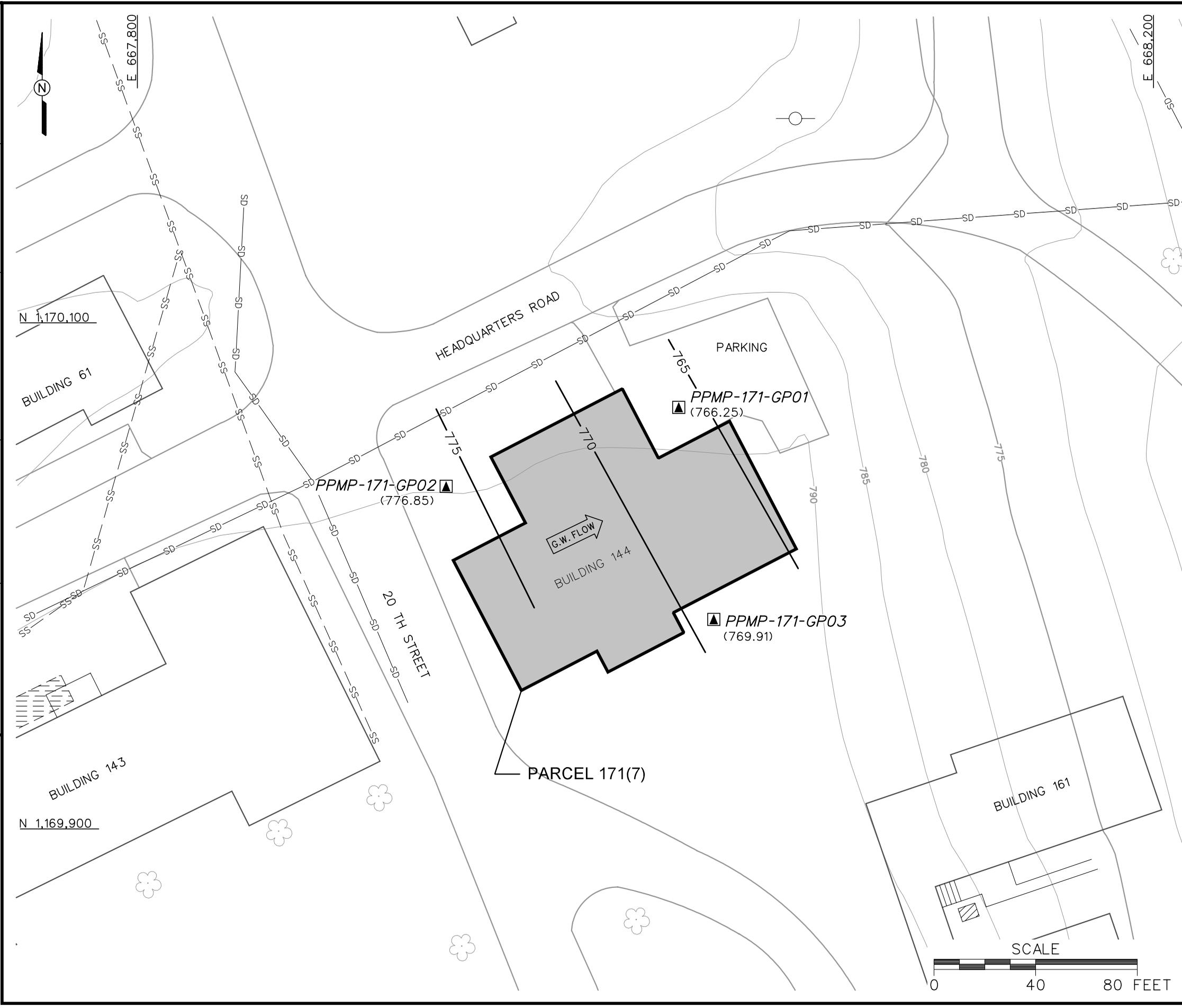
Surface runoff at the Former Printing Plant, Building 144, Parcel 171(7) follows the site topography and generally flows to the east-northeast. A storm drainage line is located approximately 25 feet from the northwestern side of the Former Printing Plant, Building 144 and also flows to the east-northeast.

#### **4.2.2 Hydrogeology**

During boring and well installation activities, groundwater was encountered in the weathered shale.

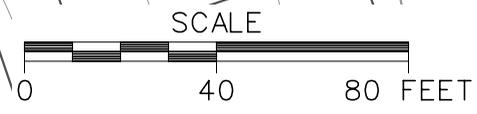
Static groundwater levels were measured on April 22, 1999. Table 3-4 summarizes measured groundwater elevations. Groundwater elevations were calculated by measuring the depth to groundwater relative to the surveyed top-of-casing elevations. A groundwater elevation map constructed from data from April 22, 1999 is shown on Figure 4-1. Based on the April groundwater levels, horizontal groundwater flow is to the northeast, following the general slope of the surface topography, with a gradient of approximately 0.10 feet per foot. Static groundwater levels summarized in Table 3-4 are at shallower depths than depth to water data from the drilling logs (Appendix B).

DWG. NO.: ... \774645es.457  
 PROJ. NO.: 774645  
 INITIATOR: D. HILL  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHCK. BY: J. JENKINS  
 ENGR. CHCK. BY: J. JENKINS  
 STARTING DATE: 01/24/00  
 DATE LAST REV.:  
 DRAWN BY: D. BILLINGSLEY  
 10/12/00  
 09:38:19  
 c:\cadd\design\774645es.457  
 ow smith



- LEGEND**
- UNIMPROVED ROADS AND PARKING
  - PAVED ROADS AND PARKING
  - BUILDING
  - TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
  - GROUNDWATER ELEVATION CONTOUR
  - GROUNDWATER ELEVATION (FT MSL) (APRIL 22, 1999)
  - G.W. FLOW
  - TREES / TREELINE
  - PARCEL BOUNDARY
  - UTILITY POLE
  - SANITARY SEWER LINE
  - STORM DRAINAGE LINE
  - GROUNDWATER, SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION

**FIGURE 4-1**  
**GROUNDWATER ELEVATIONS**  
**FORMER PRINTING PLANT**  
**BUILDING 144**  
**PARCEL 171(7)**  
 U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



## **5.0 Summary of Analytical Results**

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The results of chemical analyses of samples collected at the Former Printing Plant, Building 144, Parcel 171(7) indicate that metals, VOCs, and SVOCs have been detected in the various site media. To evaluate whether the detected constituents present an unacceptable risk to human health and the environment, detected constituent concentrations were compared to the SSSLs and ESVs for FTMC. The SSSLs and ESVs were developed by IT for human health and ecological risk evaluations as part of the ongoing SIs being performed under the BRAC Environmental Restoration Program at FTMC.

Metals results exceeding the SSSLs and ESVs were subsequently compared to metals screening values (background concentrations) (SAIC, 1998) in Appendix G to determine if the metals concentrations are below natural background concentrations. Additionally, SVOC concentrations in surface and subsurface soils that exceeded the SSSLs and ESVs were compared to PAH background screening values, where available. The PAH background screening values were derived from PAH analytical data from 18 parcels at FTMC that were determined to represent anthropogenic activity (IT, 2000b). PAH background screening values were developed for 2 categories of surface soils: beneath asphalt and adjacent to asphalt. The PAH background screening values for soils adjacent to asphalt are more conservative PAH background values (i.e., lower) and are the values used herein for comparison.

Six compounds were quantified by both SW-846 Method 8260B (VOCs) and Method 8270C (SVOCs), including 1,2,4-trichlorobenzene, 1,4-dichlorobenzene, 1,3-dichlorobenzene, 1,2-dichlorobenzene, hexachlorobutadiene, and naphthalene. Method 8260B yields a reporting limit (RL) of 0.005 milligrams per kilogram (mg/kg), while Method 8270C has a RL of 0.330 mg/kg, which is typical for a soil matrix sample. Because of the direct nature of the Method 8260B analysis and its resulting lower RL, this method should be considered superior to Method 8270C when quantifying low levels (0.005 to 0.330 mg/kg) of these compounds. Method 8270C and its associated methylene chloride extraction step is superior, however, when dealing with samples that contain higher concentrations (greater than 0.330 mg/kg) of these compounds. Therefore, all data were considered and none were categorically excluded. Data validation qualifiers were helpful in evaluating the usability of data, especially if calibration, blank contamination, precision, or accuracy indicator anomalies were encountered. The validation qualifiers and concentrations reported (e.g., whether concentrations were less than or greater than 0.330 mg/kg) were used to determine which analytical method was likely to return the more accurate result.

The following sections and Tables 5-1 through 5-3 summarize the results of the comparison of detected constituents to the SSSLs, ESVs, and background screening values. Complete analytical results are presented in Appendix E.

### **5.1 Surface Soil Sample Results**

Three surface soil samples were collected for chemical analyses at the Former Printing Plant, Building 144, Parcel 171(7). Surface soil samples were collected from the upper 1 foot of soil at the locations shown on Figure 3-1. Analytical results were compared to residential human health SSSLs, ESVs, and background concentrations, as presented in Table 5-1.

**Metals.** Twenty metals were detected in surface soil samples collected at the Former Printing Plant, Building 144, Parcel 171(7). With the exception of thallium, the detected metals were present in each of the samples.

The concentrations of arsenic at all three sample locations exceeded the SSSL but were less than the background metals screening level. Aluminum (PPMP-171-GP03), iron (all three locations), and manganese (PPMP-171-GP02, PPMP-171-GP03) concentrations exceeded the SSSLs and ESVs but the concentrations were less than the metals background screening levels. Several metals concentrations exceeded their ESVs including aluminum (PPMP-171-GP01, PPMP-171-GP02), manganese (PPMP-171-GP01), chromium (all three locations), and vanadium (all three locations); however, none of these exceeded their background value. Five metals: lead (PPMP-171-GP02, PPMP-171-GP03), copper (PPMP-171-GP03), mercury (PPMP-171-GP03), selenium (PPMP-171-GP03), and zinc (PPMP-171-GP03) exceeded both ESVs and background screening values; however, the concentrations were within the range of the background values reported by SAIC (Appendix G).

**Volatile Organic Compounds.** Acetone, bromomethane, and methylene chloride were detected in surface soil samples collected at the Former Printing Plant, Building 144, Parcel 171(7). Every detected VOC was present in each sample, however, the analytical results were flagged with a “B” data qualifier signifying that these compounds were also detected in an associated laboratory or field blank sample. None of the detected VOCs were present at concentrations exceeding residential human health SSSLs or ESVs.

**Semivolatile Organic Compounds.** Twelve SVOCs (eleven PAH compounds and carbazole) were detected in surface soil samples collected at the Former Printing Plant, Building 144, Parcel 171(7). The surface soil collected from sample location PPMP-171-GP03 contained

Table 5-1

Surface Soil Analytical Results  
Former Printing Plant, Building 144, Parcel 171(7)  
Fort McClellan, Calhoun County, Alabama

(Page 1 of 2)

Parameter	Units	BKG <sup>a</sup>	SSSL <sup>b</sup>	ESV <sup>c</sup>	PPMP-171 GP01			PPMP-171 GP02			PPMP-171 GP03						
					Sample Location: Sample Number: Sample Date: Sample Depth (Feet):	Qual	>BKG	>SSSL	>ESV	Sample Location: Sample Number: Sample Date: Sample Depth (Feet):	Qual	>BKG	>SSSL	>ESV	Sample Location: Sample Number: Sample Date: Sample Depth (Feet):	Qual	>BKG
<b>METALS</b>																	
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	5.92E+03			YES	7.07E+03				7.89E+03				YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	3.50E+00		YES		4.30E+00				8.10E+00				YES
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	8.31E+01				7.11E+01				1.43E+02		YES		
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	8.20E-01	YES			5.40E-01	J			4.50E-01	J			
Calcium	mg/kg	1.72E+03	NA	NA	3.33E+04	YES			6.90E+02				1.74E+03	YES			
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.82E+01			YES	6.60E+00	J			1.83E+01	J			YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	1.60E+00				3.80E+00	J			4.00E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	5.70E+00				2.77E+01		YES		8.95E+01		YES		YES
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	7.26E+03	YES		YES	9.00E+03				1.52E+04	J			YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	2.07E+01				7.75E+01		YES		9.22E+01		YES		YES
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	8.67E+03	J	YES		2.68E+02	J			2.96E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	2.01E+02				1.28E+03	J			3.78E+02	J			YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	4.60E-02				9.20E-02		YES		1.30E+00		YES		YES
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	5.50E+00				4.30E+00	J			4.80E+00				
Potassium	mg/kg	8.00E+02	NA	NA	6.06E+02				1.15E+02	J			1.93E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	6.00E-01	YES			5.90E-01		YES		9.20E-01		YES		YES
Sodium	mg/kg	6.34E+02	NA	NA	1.66E+02	B			5.40E+01	B			8.61E+01	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	4.90E-01	B			ND				ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	1.76E+01			YES	1.57E+01				2.27E+01		YES		YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.68E+01				2.73E+01				8.62E+01		YES		YES
<b>SEMIVOLATILE ORGANIC COMPOUNDS</b>																	
Anthracene	mg/kg	9.35E-01	2.33E+03	1.00E-01	ND				ND				7.40E-02	J			
Benzo(a)anthracene	mg/kg	1.19E+00	8.51E-01	5.21E+00	ND				ND				3.20E-01	J			
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	ND				ND				2.60E-01	J			YES
Benzo(b)fluoranthene	mg/kg	1.66E+00	8.51E-01	5.98E-01	ND				4.30E-02	J			3.80E-01	J			
Benzo(g,h,i)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	ND				ND				1.60E-01	J			
Benzo(k)fluoranthene	mg/kg	1.45E+00	8.51E+00	1.48E+02	ND				ND				1.30E-01	J			
Carbazole	mg/kg	NA	3.11E+01	NA	ND				ND				5.40E-02	J			
Chrysene	mg/kg	1.40E+00	8.61E+01	4.73E+00	ND				ND				3.10E-01	J			YES
Fluoranthene	mg/kg	2.03E+00	3.09E+02	1.00E-01	4.80E-02	J			5.40E-02	J			7.00E-01	J			YES
Indeno(1,2,3-cd)pyrene	mg/kg	9.37E-01	8.51E-01	1.09E+02	ND				ND				1.70E-01	J			
Phenanthrene	mg/kg	1.08E+00	2.32E+03	1.00E-01	ND				ND				3.20E-01	J			YES
Pyrene	mg/kg	1.63E+00	2.33E+02	1.00E-01	4.40E-02	J			4.10E-02	J			5.20E-01	J			YES
<b>VOLATILE ORGANIC COMPOUNDS</b>																	
Acetone	mg/kg	NA	7.76E+02	2.50E+00	1.00E-02	B			8.60E-03	B			1.20E-02	B			
Bromomethane	mg/kg	NA	1.09E+01	NA	2.40E-03	B			2.40E-03	B			1.80E-03	B			
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	3.40E-03	B			2.50E-03	B			2.60E-03	B			

Table 5-1

Surface Soil Analytical Results  
Former Printing Plant, Building 144, Parcel 171(7)  
Fort McClellan, Calhoun County, Alabama

(Page 2 of 2)

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

- <sup>a</sup> Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama, July*. For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama, July*.
- <sup>b</sup> Residential human health site-specific screening levels (SSSLs) and ecological screening values (ESVs) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama, July*.
- B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).
- J - Result is greater than stated method detection limit but less than or equal to specified reporting limit.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 5-2

**Subsurface Soil Analytical Results  
Former Printing Plant, Building 144, Parcel 171(7)  
Fort McClellan, Calhoun County, Alabama**

(Page 1 of 2)

Parameter	Units	Sample Location:				Sample Location:				Sample Location:			
		BKG <sup>a</sup>	SSSL <sup>b</sup>	Result	Qual	BKG <sup>a</sup>	SSSL <sup>b</sup>	Result	Qual	BKG <sup>a</sup>	SSSL <sup>b</sup>	Result	Qual
<b>METALS</b>													
Aluminum	mg/kg	1.36E+04	7.80E+03	1.31E+04		YES	1.02E+04			1.11E+04			YES
Arsenic	mg/kg	1.83E+01	4.26E-01	5.00E+00		YES	7.60E+00			8.00E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	5.22E+01			2.70E+01			1.86E+01 J			
Beryllium	mg/kg	8.60E-01	9.60E+00	7.20E-01			8.30E-01			9.40E-01			YES
Calcium	mg/kg	6.37E+02	NA	2.48E+04		YES	4.02E+02 J			8.99E+01 J			
Chromium	mg/kg	3.83E+01	2.32E+01	2.06E+01 J			2.19E+01 J			2.15E+01 J			
Cobalt	mg/kg	1.75E+01	4.68E+02	1.20E+00 J			2.00E+00 J			1.30E+00 J			
Copper	mg/kg	1.94E+01	3.13E+02	2.90E+01		YES	3.71E+01		YES	3.57E+01		YES	YES
Iron	mg/kg	4.48E+04	2.34E+03	3.25E+04			4.18E+04			4.22E+04			
Lead	mg/kg	3.85E+01	4.00E+02	2.33E+01		YES	2.31E+01			2.09E+01			
Magnesium	mg/kg	7.66E+02	NA	5.64E+02 J			1.70E+02 J			7.05E+01 J			
Manganese	mg/kg	1.36E+03	3.63E+02	7.00E+01 J			1.09E+02 J			9.00E+00 J			
Mercury	mg/kg	7.00E-02	2.33E+00	2.10E-02 J			1.40E-02 J			1.70E-02 J			
Nickel	mg/kg	1.29E+01	1.54E+02	3.50E+00 J			1.19E+01			5.30E+00			
Potassium	mg/kg	7.11E+02	NA	6.45E+02			3.58E+02 J			4.30E+02 J			
Selenium	mg/kg	4.70E-01	3.91E+01	1.60E+00		YES	1.70E+00		YES	2.10E+00		YES	YES
Sodium	mg/kg	7.02E+02	NA	2.34E+02 J			9.90E+01 B			7.45E+01 B			
Thallium	mg/kg	1.40E+00	5.08E-01	5.80E-01 B			ND			ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	2.92E+01			3.47E+01			3.28E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	3.16E+01			3.85E+01		YES	3.05E+01			
<b>SEMIVOLATILE ORGANIC COMPOUNDS</b>													
Fluoranthene	mg/kg	NA	3.09E+02	4.60E-02 J			4.70E-02 J			ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	6.10E-02 J			ND			ND			
<b>VOLATILE ORGANIC COMPOUNDS</b>													
Acetone	mg/kg	NA	7.76E+02	7.10E-03 B			7.50E-02 J			1.90E-02 B			
Bromomethane	mg/kg	NA	1.09E+01	2.10E-03 B			2.30E-03 B			2.40E-03 B			
Methylene chloride	mg/kg	NA	8.41E+01	2.70E-03 B			3.10E-03 B			3.20E-03 B			

Table 5-2

**Subsurface Soil Analytical Results  
Former Printing Plant, Building 144, Parcel 171(7)  
Fort McClellan, Calhoun County, Alabama**

(Page 2 of 2)

Analyses performed by Quanterra Environmental Services using U. S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

- <sup>a</sup> Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama, July*.
  - <sup>b</sup> Residential human health site-specific screening levels (SSSLs) and ecological screening values (ESVs) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama, July*.
- B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).  
J - Result is greater than stated method detection limit but less than or equal to specified reporting limit.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 5-3

**Groundwater Analytical Results**  
**Former Printing Plant, Building 144, Parcel 171(7)**  
**Fort McClellan, Calhoun County, Alabama**

Parameter	Units	BKG <sup>a</sup>		SSSL <sup>b</sup>		PPMP-171 PPMP-171-GP01 KD3001 18-Feb-99		PPMP-171 PPMP-171-GP02 KD3002 17-Feb-99		PPMP-171 PPMP-171-GP03 KD3003 18-Feb-99	
		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
<b>METALS</b>											
Aluminum	mg/L	2.34E+00	1.56E+00	1.63E+00	J	2.01E+00	J	2.01E+00	J	6.32E-02	B
Barium	mg/L	1.27E-01	1.10E-01	6.51E-02	J	6.43E-02	J	6.43E-02	J	4.61E-02	J
Calcium	mg/L	5.65E+01	NA	1.93E+00	J	2.93E+00	J	2.93E+00	J	1.54E+00	J
Cobalt	mg/L	2.34E-02	9.39E-02	1.07E-02	J	6.70E-03	J	6.70E-03	J	7.30E-03	J
Iron	mg/L	7.04E+00	4.69E-01	1.72E+00	J	2.48E+00	J	2.48E+00	J	3.84E-01	J
Magnesium	mg/L	2.13E+01	NA	3.49E+00	J	4.23E+00	J	4.23E+00	J	3.96E+00	J
Manganese	mg/L	5.81E-01	7.35E-02	9.16E-02	J	1.49E-01	J	1.49E-01	J	5.93E-02	J
Nickel	mg/L	NA	3.13E-02	2.02E-02	J	1.98E-02	J	1.98E-02	J	2.00E-02	J
Potassium	mg/L	7.20E+00	NA	8.24E-01	J	8.84E-01	J	8.84E-01	J	ND	
Sodium	mg/L	1.48E+01	NA	7.01E+00	J	9.15E+00	J	9.15E+00	J	5.07E+00	J
Zinc	mg/L	2.20E-01	4.69E-01	4.84E-02	J	2.56E-02	J	2.56E-02	J	2.76E-02	J
<b>VOLATILE ORGANIC COMPOUNDS</b>											
Chlorobenzene	mg/L	NA	1.62E-02	8.00E-04	J	ND		ND		ND	

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

<sup>a</sup> Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama, July*.  
<sup>b</sup> Residential human health site-specific screening levels (SSSLs) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama, July*.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).  
 J - Result is greater than stated method detection limit but less than or equal to specified reporting limit.

NA - Not available.

mg/L - Milligrams per liter.

ND - Not detected.

Qual - Data validation qualifier.

all of the detected SVOCs. None of the other sample locations contained more than three of the detected SVOCs. The SVOC analytical results were flagged with a “J” data qualifier signifying that the result is greater than the method detection limit but less than the specified RL.

The benzo(a)pyrene concentration at sample location PPMP-171-GP03 exceeded both residential human health SSSLs and ESVs. However, the benzo(a)pyrene concentration was less than the PAH background screening value and it was not detected in any of the other surface soil samples. Fluoranthene, phenanthrene, and pyrene concentrations at sample location PPMP-171-GP03 exceeded ESVs but were below PAH background screening values.

## **5.2 Subsurface Soil Sample Results**

Three subsurface soil samples were collected for chemical analyses at the Former Printing Plant, Building 144, Parcel 171(7). Subsurface soil samples were collected at depths greater than 1 foot bgs at the locations shown on Figure 3-1. Analytical results were compared to residential human health SSSLs and background concentrations, as presented in Table 5-2.

**Metals.** Twenty metals were detected in subsurface soil samples collected at the Former Printing Plant, Building 144, Parcel 171(7). With the exception of thallium, the detected metals were present in each of the samples. The concentrations of four metals (aluminum, arsenic, iron, and thallium) exceeded residential human health SSSLs but were less than background screening values.

**Volatile Organic Compounds.** Acetone, bromomethane, and methylene chloride were detected in subsurface soil samples collected at the Former Printing Plant, Building 144, Parcel 171(7). Every detected VOC was present in each sample. The bromomethane and methylene chloride analytical results were flagged with a “B” data qualifier signifying that these compounds were also detected in an associated laboratory or field blank sample. None of the detected VOCs were present at concentrations exceeding residential human health SSSLs.

**Semivolatile Organic Compounds.** Fluoranthene and bis(2-ethylhexyl)phthalate were detected in two of the subsurface soil samples collected at the Former Printing Plant, Building 144, Parcel 171(7). Sample location PPMP-171-GP01 contained both of the detected SVOCs. None of the detected SVOCs was present at concentrations exceeding residential human health SSSLs.

### **5.3 Groundwater Sample Results**

Three monitoring wells were sampled at the Former Printing Plant, Building 144, Parcel 171(7) at the sample locations shown on Figure 3-1. Analytical results were compared to residential human health SSSLs and background concentrations, as presented in Table 5-3.

**Metals.** Eleven metals, including aluminum, barium, calcium, cobalt, iron, magnesium, manganese, nickel, potassium, sodium, and zinc, were detected in groundwater samples collected at the Former Printing Plant, Building 144, Parcel 171(7). With the exception of potassium, the detected metals were present in each of the samples. Aluminum, iron, and manganese concentrations at two sample locations (PPMP-171-GP01 and PPMP-171-GP02) exceeded residential human health SSSLs but were within background concentrations.

**Volatile Organic Compounds.** Chlorobenzene was detected at sample location PPMP-171-GP01. VOCs were not detected at the other groundwater sample locations. The chlorobenzene concentration was below the residential human health SSSL.

**Semivolatile Organic Compounds.** SVOCs were not detected in any of the groundwater samples.

## **6.0 Summary and Conclusions and Recommendations**

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IT, under contract with USACE, completed an SI at the Former Printing Plant, Building 144, Parcel 171(7) at FTMC, Calhoun County, Alabama. The SI was conducted to determine whether chemical constituents are present at the Former Printing Plant, Building 144, Parcel 171(7) and, if present, whether the concentrations would present an unacceptable risk to human health or the environment. The SI at the Former Printing Plant, Building 144, Parcel 171(7) consisted of the sampling and analyses of three surface soil samples, three subsurface soil samples, and three groundwater samples. In addition, three monitoring wells were installed in the residuum groundwater zone to facilitate groundwater sample collection and to provide site-specific geological and hydrogeological characterization information.

The analytical results indicate that metals, VOCs, and SVOCs were detected in the environmental media sampled. Analytical results were compared to the human health SSSLs and ESVs. The SSSLs and ESVs were developed by IT for human health and ecological risk evaluations as part of the ongoing SIs being performed under the BRAC Environmental Restoration Program at FTMC. Additionally, metals results exceeding the SSSLs and ESVs were compared to media-specific background concentrations (SAIC, 1998). SVOC concentrations exceeding the SSSLs and ESVs in surface soil samples were compared to PAH background screening values where available (IT, 2000b). The findings are summarized as follows:

- Arsenic concentrations at all three sample locations exceeded the SSSL but were less than the background metals screening level. Aluminum, iron, and manganese concentrations exceeded the SSSLs and ESVs, but were less than metals background screening levels. Aluminum, manganese, chromium, and vanadium exceeded their ESVs; however, none of these exceeded their background screening value. Five metals (lead, copper, mercury, selenium, and zinc) exceeded both ESVs and background screening values; however, the concentrations were within the range of background values. The PAH benzo(a)pyrene was detected at one surface soil sample location (PPMP-171-GP03) at a concentration (0.26 mg/kg), exceeding residential human health SSSLs and ESVs, but the concentration was less than the PAH background screening concentration (1.42 mg/kg). Three other PAHs (fluoranthene, phenanthrene, and pyrene) were also detected at sample location PPMP-171-GP03 at concentrations exceeding ESVs but below residential human health SSSLs and PAH background screening levels.
- Aluminum, arsenic, iron, and thallium were detected in subsurface soil samples at concentrations exceeding residential human health SSSLs but below background

concentrations. VOCs and SVOCs were not detected in subsurface soil samples at concentrations exceeding residential human health SSSLs.

- Aluminum, iron, and manganese were detected at two groundwater sample locations at concentrations exceeding residential human health SSSLs but below background concentrations. VOCs and SVOCs were not detected in groundwater samples at concentrations exceeding residential human health SSSLs.

The potential impact to human receptors is expected to be minimal. The metals that exceeded residential human health SSSLs were below the background concentrations, and thus, do not pose an unacceptable risk to future human receptors. The concentration of the PAH benzo(a)pyrene exceeded the residential human health SSSL at one sample location, but was less than the background screening level. Benzo(a)pyrene was not detected in any of the other samples collected at the Former Printing Plant, Building 144, Parcel 171(7). Given the extremely limited impacted area, benzo(a)pyrene is not expected to pose an unacceptable risk to human health in the residential land-use scenario.

Although several metals and four SVOCs were detected in site media at concentrations exceeding ESVs, the potential impact to ecological receptors is expected to be minimal. This conclusion is based on the limited area of contamination and the future residential land use of the Former Printing Plant, Building 144 (based on the *Fort McClellan Comprehensive Reuse Plan* [FTMC, 1997]). Under this land-use scenario, substantial ecological habitat is not expected to be present and is expected to be minimally impacted.

Based on the results of the SI, past operations at the Former Printing Plant, Building 144, Parcel 171(7) do not appear to have adversely impacted the environment. Furthermore, the metals and organic compounds detected in site media do not pose an unacceptable risk to human health or the environment in the residential land-use scenario. Therefore, IT recommends “No Further Action” with unrestricted reuse with regards to hazardous, toxic, and radiological waste at the Former Printing Plant, Building 144, Parcel 171(7).

## 7.0 References

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**ATTACHMENT 1**  
**LIST OF ABBREVIATIONS AND ACRONYMS**

## List of Abbreviations and Acronyms

3D	3D International Environmental Group	COC	chain of custody	FFE	field flame expedient
Abs	skin absorption	COE	Corps of Engineers	Fil	filtered
AC	hydrogen cyanide	Con	skin or eye contact	Flt	filtered
AcB2	Anniston and Allen gravelly loams, 2 to 6 percent slopes, eroded	CRL	certified reporting limit	FMP 1300	Former Motor Pool 1300
AcC2	Anniston and Allen gravelly loams, 6 to 10 percent slopes, eroded	CRZ	contamination reduction zone	Frtn	fraction
AcD2	Anniston and Allen gravelly loams, 10 to 15 percent slopes, eroded	CS	ortho-chlorobenzylidene-malononitrile	FS	field split
AcE2	Anniston and Allen gravelly loams, 15 to 25 percent slopes, eroded	CSEM	conceptual site exposure model	ft	feet
ACGIH	American Conference of Governmental Industrial Hygienists	ctr.	container	ft/ft	feet per foot
ADEM	Alabama Department of Environmental Management	CWA	chemical warfare agent	FTA	Fire Training Area
AEL	airborne exposure limit	CWM	chemical warfare material; clear, wide mouth	FTMC	Fort McClellan
AL	Alabama	CX	dichloroformoxime	g	gram
amb.	amber	D	duplicate	G-856	Geometrics, Inc. G-856 magnetometer
ANAD	Anniston Army Depot	DANC	decontamination agent, non-corrosive	G-858G	Geometrics, Inc. G-858G magnetic gradiometer
APT	armor-piercing tracer	°C	degrees Celsius	gal	gallon
ASP	Ammunition Supply Point	°F	degrees Fahrenheit	gal/min	gallons per minute
ASR	Archives Search Report	DDT	dichlorodiphenyltrichloroethane	GB	sarin
AST	aboveground storage tank	DEP	depositional soil	gc	clay gravels; gravel-sand-clay mixtures
ASTM	American Society for Testing and Materials	DI	deionized	GC	gas chromatograph
B	analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero)	DIMP	di-isopropylmethylphosphonate	GC/MS	gas chromatograph/mass spectrometer
BCT	BRAC Cleanup Team	DMMP	dimethylmethylphosphonate	GFAA	graphite furnace atomic absorption
BFB	bromofluorobenzene	DOD	U.S. Department of Defense	gm	silty gravels; gravel-sand-silt mixtures
bgs	below ground surface	DP	direct-push	gp	poorly graded gravels; gravel-sand mixtures
bkg	background	DPDO	Defense Property Disposal Office	gpm	gallons per minute
bls	below land surface	DQO	data quality objective	GPR	ground-penetrating radar
BOD	biological oxygen demand	DRMO	Defense Reutilization and Marketing Office	GPS	global positioning system
BRAC	Base Realignment and Closure	DRO	diesel range organics	GS	ground scar
Braun	Braun Intertec Corporation	DS	deep (subsurface) soil	GSBP	Ground Scar Boiler Plant
BTEX	benzene, toluene, ethylbenzene, and xylenes	DS2	Decontamination Solution Number 2	GSSI	Geophysical Survey Systems, Inc.
BTOC	below top of casing	E&E	Ecology and Environment, Inc.	GST	ground stain
BZ	breathing zone; 3-quinuclidinyl benzilate	EBS	environmental baseline survey	GW	groundwater
C	ceiling limit value	Elev.	elevation	gw	well-graded gravels; gravel-sand mixtures
Ca	carcinogen	EM	electromagnetic	HA	hand auger
CCAL	continuing calibration	EM31	Geonics Limited EM31 Terrain Conductivity Meter	HCl	hydrochloric acid
CCB	continuing calibration blank	EM61	Geonics Limited EM61 High-Resolution Metal Detector	HD	distilled mustard
CD	compact disc	EOD	explosive and ordnance disposal	HDPE	high-density polyethylene
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	EODT	explosive and ordnance disposal team	Herb.	herbicides
CERFA	Community Environmental Response Facilitation Act	EPA	U.S. Environmental Protection Agency	HNO <sub>3</sub>	nitric acid
CESAS	Corps of Engineers South Atlantic Savannah	EPC	exposure point concentration	hr	hour
CFC	chlorofluorocarbon	EPIC	Environmental Photographic Interpretation Center	H&S	health and safety
CG	cyanogen chloride	ER	equipment rinsate	HSA	hollow-stem auger
ch	inorganic clays of high plasticity	ESE	Environmental Science and Engineering, Inc.	HTRW	hazardous, toxic, and radioactive waste
CK	carbonyl chloride	ESV	ecological screening value	I	out of control, data rejected due to low recovery
cl	inorganic clays of low to medium plasticity	Exp.	explosives	ICAL	initial calibration
Cl.	chlorinated	E-W	east to west	ICB	initial calibration blank
CLP	Contract Laboratory Program	EZ	exclusion zone	ICP	inductively-coupled plasma
CN	chloroacetophenone	FB	field blank	ICS	interference check sample
CNB	chloroacetophenone, benzene, and carbon tetrachloride	FD	field duplicate	ID	inside diameter
CNS	chloroacetophenone, chloropicrin, and chloroform	FedEx	Federal Express, Inc.	IDL	instrument detection limit

## List of Abbreviations and Acronyms (Continued)

IDLH	immediately dangerous to life or health	MtD3	Montevallo shaly, silty clay loam, 10 to 40 percent slopes , severely eroded	pt	peat or other highly organic silts
IDW	investigation-derived waste	mV	millivolts	PVC	polyvinyl chloride
IMPA	isopropylmethyl phosphonic acid	MW	monitoring well	QA	quality assurance
in.	inch	N/A	not applicable; not available	QA/QC	quality assurance/quality control
Ing	ingestion	NAD	North American Datum	QAP	installation-wide quality assurance plan
Inh	inhalation	NAD83	North American Datum of 1983	QC	quality control
IP	ionization potential	NAVD88	North American Vertical Datum of 1988	QST	QST Environmental Inc.
IPS	International Pipe Standard	ND	not detected	qty	quantity
IRDMIS	Installation Restoration Data Management Information System	NE	no evidence	Qual	qualifier
IT	IT Corporation	NFA	No Further Action	R	rejected
ITEMS	IT Environmental Management System <sup>TM</sup>	ng/L	nanograms per liter	RCRA	Resource Conservation and Recovery Act
J	estimated concentration	NGVD	National Geodetic Vertical Datum	ReB3	Rarden silty clay loams
JeB2	Jefferson gravelly fine sandy loam, 2 to 6 percent slopes, eroded	NIC	notice of intended change	REG	field sample
JeC2	Jefferson gravelly fine sandy loam, 6 to 10 percent slopes, eroded	NIOSH	National Institute for Occupational Safety and Health	REL	recommended exposure limit
JfB	Jefferson stony fine sandy loam, 0 to 10 percent slopes have strong slopes	No.	number	RFA	request for analysis
K	conductivity	NOAA	National Oceanic and Atmospheric Administration	RI	remedial investigation
L	lewisite; liter	NR	not requested	RL	reporting limit
LC <sub>50</sub>	lethal concentration for 50 percent of population tested	ns	nanosecond	RPD	relative percent difference
LD <sub>50</sub>	lethal dose for 50 percent of population tested	N-S	north to south	RRF	relative response factor
l	liter	nT	nanotesla	RSD	relative standard deviation
LCS	laboratory control sample	NTU	nephelometric turbidity unit	RTK	real-time kinematic
LEL	lower explosive limit	O&G	oil and grease	SAD	South Atlantic Division
LT	less than the certified reporting limit	OD	outside diameter	SAE	Society of Automotive Engineers
max	maximum	OE	ordnance and explosives	SAIC	Science Applications International Corporation
MDL	method detection limit	oh	organic clays of medium to high plasticity	SAP	installation-wide sampling and analysis plan
mg/kg	milligrams per kilogram	ol	organic silts and organic silty clays of low plasticity	sc	clayey sands; sand-clay mixtures
mg/L	milligrams per liter	OP	organophosphorus	Sch.	schedule
mg/m <sup>3</sup>	milligrams per cubic meter	OSHA	Occupational Safety and Health Administration	SD	sediment
mh	inorganic silts, micaceous or diatomaceous fine, sandy or silt soils	OWS	oil/water separator	SDG	sample delivery group
MHz	megahertz	oz	ounce	SDZ	safe distance zone; surface danger zone
µg/g	micrograms per gram	PAH	polynuclear aromatic hydrocarbon	SEMS	Southern Environmental Management & Specialties
µg/kg	micrograms per kilogram	Pb	lead	SFSP	site-specific field sampling plan
µg/L	micrograms per liter	PCB	polychlorinated biphenyl	SGF	standard grade fuels
µmhos/cm	micromhos per centimeter	PCE	perchloroethene	SHP	installation-wide safety and health plan
min	minimum	PDS	Personnel Decontamination Station	SI	site investigation
MINICAMS	miniature continuous air sampling system	PEL	permissible exposure limit	SL	standing liquid
ml	inorganic silts and very fine sands	Pest.	pesticide	sm	silty sands; sand-silt mixtures
mL	milliliter	PG	professional geologist	SOP	standard operating procedure
mm	millimeter	PID	photoionization detector	sp	poorly graded sands; gravelly sands
MM	mounded material	PkA	Philo and Stendal soils local alluvium, 0 to 2 percent slopes	SP	sump pump
MOGAS	motor vehicle gasoline	POL	petroleum, oils, and lubricants	Ss	stony rough land, sandstone series
MPA	methyl phosphonic acid	PP	peristaltic pump	SS	surface soil
MR	molasses residue	ppb	parts per billion	SSC	site-specific chemical
MS	matrix spike	PPE	personal protective equipment	SSHO	site safety and health officer
mS/cm	millisiemens per centimeter	ppm	parts per million	SSHP	site-specific safety and health plan
MSD	matrix spike duplicate	PPMP	Print Plant Motor Pool	SSSL	site-specific screening level
msl	mean sea level	ppt	parts per thousand	STB	supertropical bleach
		PSSC	potential site-specific chemical	STEL	short-term exposure limit

## List of Abbreviations and Acronyms (Continued)

---

STOLS	Surface Towed Ordnance Locator System <sup>®</sup>	WWI	World War I
Std. units	standard units	WWII	World War II
SU	standard unit	XRF	x-ray fluorescence
SVOC	semivolatile organic compound	yd <sup>3</sup>	cubic yards
SW	surface water		
SW-846	U.S. EPA <i>Test Methods for Evaluating Solid Waste: Physical/Chemical Methods</i>		
SZ	support zone		
TAL	target analyte list		
TAT	turn around time		
TB	trip blank		
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 compounds		
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		
UJ	not detected above reporting limit; result should be estimated		
USACE	U.S. Army Corps of Engineers		
USAEC	U.S. Army Environmental Center		
USAEHA	U.S. Army Environmental Hygiene Agency		
USAMCLS	U.S. Army Chemical 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		

**APPENDIX A**  
**SAMPLE COLLECTION LOGS**



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: \_\_\_\_\_

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

Location Code: PPMP-171-GP01

Collection Time: 1520

Sample Number: KD0001

Start Depth: ∅

Sample Name: PPMP-171-GP01-SS-KD0001-REG

End Depth: 1

Sampling Method: HA

Sample Team: Messer, Allen

**Containers**

Analytical Suite    Flt Frtn Qty Size Units Type

VOLATILES	3	N A	3	5	g	EnCore
METALS	8	N B	1	8	oz	CWM
SEMIVOLATILES	8	N B	1	8	oz	CWM

Comments: COLLECTED W/SS HAND AUGER. UNDER ASPHALT

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 Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

Location Code: PPMP-171-GP01

Collection Time: 1520

Sample Number: KD0001-MS

Start Depth: ∅

Sample Name: PPMP-171-GP01-SS-KD0001-MS

End Depth: 1

Sampling Method: HA

Sample Team: Messner, Allen

Analytical Suite	Containers				Type
	Flt	Frtn	Qty	Size	
VOLATILES 3	N A	3	5	g	EnCore
METALS-S	N B	1	8	oz	CWM
SEMIVOLATILES	N B	1	8	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 Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

Location Code: PPMP-171-GP01

Collection Time: 1520

Sample Number: KD0001-MSD

Sample Name: PPMP-171-GP01-SS-KD0001-MSD

Start Depth: 0

Sampling Method: HA

End Depth: 1

Analytical Suite	Containers				Units	Type
	Flt	Frtn	Qty	Size		
VOLATILES-3	N	A	3	5	g	EnCore
METALS-S	N	B	1	8	oz	CWM
SEMIVOLATILES	N	B	1	8	oz	CWM

Sample Team: Messer, Allen

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 Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

Location Code: PPMP-171-GP01

Collection Time: 1535

Sample Number: KD0002

Sample Name: PPMP-171-GP01-DS-KD0002-REG

Start Depth: 6

Sampling Method: DP

End Depth: 9

**Containers**

Analytical Suite    Flt Frtn Qty Size Units Type

VOLATILES 3	N A	3	5	g	EnCore
METALS 5	N B	1	8	oz	CWM
SEMIVOLATILES	N B	1	8	oz	CWM

Sample Team: Messer, Allen

Comments: Refusal @ 9

Sketch Location:

Logged BY / Date: \_\_\_\_\_

Reviewed BY / Date: \_\_\_\_\_



**INTERNATIONAL  
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CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: \_\_\_\_\_

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

Location Code: PPMP-171-GP02

Collection Time: 1555

Sample Number: KD0003

Start Depth: 0

Sample Name: PPMP-171-GP02-SS-KD0003-REG

End Depth: 1

Sampling Method: HA

Sample Team: Messer, Allen

Analytical Suite	Containers			Units	Type
	Flt	Frtn	Qty		
VOLATILES 3	N A	3	5	g	EnCore
METALS 5	N B	1	8	oz	CWM
SEMIVOLATILES	N B	1	8	oz	CWM

Comments: COLLECTED w/ STAINLESS Steel HAND AUGER NOT ON ASPHALT

Sketch Location:

Logged BY / Date: \_\_\_\_\_

Reviewed BY / Date: \_\_\_\_\_



**INTERNATIONAL  
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CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: \_\_\_\_\_

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

Location Code: PPMP-171-GP02

Collection Time: 1610

Sample Number: KD0004

Sample Name: PPMP-171-GP02-DS-KD0004-REG

Start Depth: 6

Sampling Method: DP

End Depth: 9

Analytical Suite	Containers				Units	Type
	Flt	Frtn	Qty	Size		
VOLATILES 3	N	A	3	5	g	EnCore
METALS-S	N	B	1	8	oz	CWM
SEMIVOLATILES	N	B	1	8	oz	CWM

Sample Team: Messer, Allen

Comments: Refusal @ 9

Sketch Location:

Logged BY / Date: \_\_\_\_\_

Reviewed BY / Date: \_\_\_\_\_



**INTERNATIONAL  
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CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: \_\_\_\_\_

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

Location Code: PPMP-171-GP03

Collection Time: 1025

Sample Number: KD0005

Sample Name: PPMP-171-GP03-<sup>SS</sup>~~DS~~-KD0005-REG

Start Depth: 0

Sampling Method: HA

End Depth: 1

Analytical Suite	Containers				Units	Type
	Flt	Frtn	Qty	Size		
VOLATILES 3	N A	3	5	g	EnCort	
METALS-S	N B	1	8	oz	CWM	
SEMIVOLATILES	N B	1	8	oz	CWM	

Sample Team: Messen, Allen

Comments: COLLECTED W/ STAINLESS STEEL HAND ANGLES, NOT UNDER ASPHALT

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 Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

**Location Code:** PPMP-171-GP03

Collection Time: 10-25

**Sample Number:** KD0006

**Sample Name:** PPMP-171-GP03-<sup>SS</sup> ~~DS~~-KD0006-FD

Start Depth: ∅

**Sampling Method:** HA

End Depth: 1

Sample Team: Messor, Allen

Analytical Suite	Containers				Units	Type
	Flt	Frtn	Qty	Size		
VOLATILES 3	N	A	3	5	g	EnCore
METALS-S	N	B	1	8	oz	CWM
SEMIVOLATILES	N	B	1	8	oz	CWM

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Sketch Location:**

Logged BY / Date: \_\_\_\_\_

Reviewed BY / Date: \_\_\_\_\_



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CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: \_\_\_\_\_

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

Location Code: PPMP-171-GP03

Collection Time: 1025

Sample Number: KD0007

Sample Name: PPMP-171-GP03-<sup>SS</sup>DS-KD0007-FS

Start Depth: 0

Sampling Method: HA

End Depth: 1

**Containers**

Analytical Suite Flt Frtn Qty Size Units Type

VOLATILES 3	N A	3	5	g	EnCore
METALS-S	N B	1	8	oz	CWM
SEMIVOLATILES	N B	1	8	oz	CWM

Sample Team: Messer, Allen

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sketch Location:

Logged BY / Date: \_\_\_\_\_

Reviewed BY / Date: \_\_\_\_\_



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CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: \_\_\_\_\_

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 1-19-99

Location Code: PPMP-171-GP03

Collection Time: 1050

Sample Number: KD0008

Sample Name: PPMP-171-GP03-DS-KD0008-REG

Start Depth: 9

Sampling Method: DP

End Depth: 11

Analytical Suite	Containers				Units	Type
	Flt	Frtn	Qty	Size		
VOLATILES 3	N	A	3	5	g	EnCore
METALS-S	N	B	1	8	oz	CWM
SEMIVOLATILES	N	B	1	8	oz	CWM

Sample Team: Messer, Allen

Comments: Refuse @ 11

Sketch Location:

Logged BY / Date: \_\_\_\_\_

Reviewed BY / Date: \_\_\_\_\_



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CORPORATION**

ENTERED  
4/8/99  
by sm

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: 171-021899-QSK

Site: Former Printing Plant, Building 144 (Parcel 1)

Location Code: PPMP-171-GP01

Sample Number: KD3001

Sample Name: PPMP-171-GP01-GW-KD3001-REG

Sampling Method: PF SP

Collection Date: 02/18/99

Collection Time: 0855

Start Depth: N/A

End Depth: N/A

Sample Team: C. Short  
J. Brown

**Containers**

Analytical Suite Flt Frtn Qty Size Units Type

VOLATILES_3	N A	3	40	mL	VOA Vial
SEMIVOLATILES	N B	1	1	L	Amb. Glass
METALS-W	N C	1	1	L	HDPE

**PURGE RECORD:**

Initial Time(24hr)	Depth to Water (ft)	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)	Purge Volume (gal)
0806	27.15	296.4	4.69	86	577	4.33	14.91	1.0
0811	27.60	295.6	4.83	102	178	2.21	17.81	2.15
0821	28.30	294.0	4.91	90	200.7	1.36	18.42	4.30
0829	29.00	294.4	5.11	83	274.6	0.81	18.67	6.45
0837	29.60	229.4	5.14	85	201.2	0.46	18.61	9.00
0843								
Sample:								

*VOCs and Metals preserved to pH < 2.*

Logged BY / Date:

[Signature]  
02/18/99

Reviewed BY / Date:

[Signature] 2/22/99



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: 171-021899-C51

Site: **Former Printing Plant, Building 144 (Parcel 1)**

Collection Date: 02/18/99

Location Code: **PPMP-171-GP01**

Collection Time: 0855

Sample Number: **KD3001-MS**

Sample Name: **PPMP-171-GP01-GW-KD3001-MS**

Start Depth: NA

Sampling Method: PP/SP

End Depth: NA

**Containers**

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
VOLATILES-3	N	A	3	40	mL	VOA Vial
SEMIVOLATILES	N	B	1	1	L	Amb. Glass
METALS-W	N	C	1	1	L	HDPE

Sample Team: C. Shore  
J. Brown

**PURGE RECORD:**

Initial	Time(24hr)	DepthtoWater (ft)	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)	Purge Volume (gal)
<i>See KD3001-1706 log.</i>									
Sample:									

Logged BY / Date: [Signature]  
02/18/99

Reviewed BY / Date: [Signature]  
2/22/99



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CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: 171-021899-0515

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 02/18/99

Location Code: PPMP-171-GP01

Collection Time: 0855

Sample Number: KD3001-MSD

Sample Name: PPMP-171-GP01-GW-KD3001-MSD

Start Depth: NA

Sampling Method: PPSP

End Depth: NA

**Containers**

Analytical Suite    Flt Frtn Qty Size Units Type

VOLATILES 3	N A	3	40	mL	VOA Vial
SEMIVOLATILES	N B	1	1	L	Amb. Glass
METALS-W	N C	1	1	L	HDPE

Sample Team: C. Short  
J. Brown

**PURGE RECORD:**

Initial	Time(24hr)	DepthtoWater (ft)	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)	Purge Volume (gal)
---------	------------	----------------------	------------	------------	-------------------------	--------------------	---------------------	--------------------	-----------------------

*See AD3001-186 log.*

Sample:

Logged BY / Date:

[Signature]  
2/18/99

Reviewed BY / Date:

[Signature] 2/22/99



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

ENTERED  
4/8/99  
by sm

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: 171-021799-0254

Site: **Former Printing Plant, Building 144 (Parcel 1)**

Collection Date: 02/17/99

Location Code: **PPMP-171-GP02**

Collection Time: 1545

Sample Number: **KD3002**

Start Depth: NA

Sample Name: **PPMP-171-GP02-GW-KD3002-REG**

End Depth: NA

Sampling Method: PPSP

**Containers**

Analytical Suite Flt Frtn Qty Size Units Type

VOLATILES 3	N A	3	40	mL	VOA Vial
SEMIVOLATILES	N B	1	1	L	Amb. Glass
METALS-W	N C	1	1	L	HDPE

Sample Team: C. Short  
J. Brown

**PURGE RECORD:**

Initial Time(24hr)	Depth to Water (ft)	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)	Purge Volume (gal)
1430	19.6	108.6	5.99	110	1282.5	2.05	17.06	1.0
1440	21.4	97.3	5.91	90	1097	1.78	18.22	3.25
1443	23.1	98.7	5.69	107	484.4	1.30	18.40	4.0
1458	23.6	126.9	5.56	128	252.5	1.48	18.51	7.75
1512	24.8	123.8	5.53	136	256.4	1.09	18.44	11.50
1526	25.6	122.0	5.47	108	596	0.49	18.47	15.50
1539	25.85	115.2	5.47	100	264	0.37	18.35	19.50

Sample:

*Metals and VOAs preserved to pH < 2*

Logged BY / Date:

*[Signature]*  
02/12/99

Reviewed BY / Date:

*[Signature]*  
2/18/99



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

ENTERED  
4/8/99  
DJS

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: 171-021899-051

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 02/18/99

Location Code: PPMP-171-GP03

Collection Time: 1115

Sample Number: KD3003

Sample Name: PPMP-171-GP03-GW-KD3003-REG

Start Depth: N/A

Sampling Method: PP

End Depth: N/A

**Containers**

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
VOLATILES 3	N	A	3	40	mL	VOA Vial
SEMIVOLATILES	N	B	1	1	L	Amb. Glass
METALS-W	N	C	1	1	L	HDPE

Sample Team: C. Short  
J. Brown

**PURGE RECORD:**

Initial Time(24hr)	Depth to Water (ft)	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)	Purge Volume (gal)
1004	27.25	267.1	5.19	84.0	33.4	3.19	18.49	0.25
1021	28.30	287.3	5.22	100.0	4.3	3.31	18.87	2.5
1043	29.55	177.6	5.57	80.0	10.4	2.13	18.79	5.0
1114	30.35	171.1	5.54	70.0	2.03	3.10	18.95	7.5
Sample:								

VOCs and metal samples preserved to pH 2.0.

Logged BY / Date: [Signature] / 2/18/99 Reviewed BY / Date: [Signature] / 2/22/99



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: 171-021899-054

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 02/18/99

Location Code: PPMP-171-GP03

Collection Time: 1115

Sample Number: KD3004

Start Depth: NA

Sample Name: PPMP-171-GP03-GW-KD3004-FD

End Depth: NA

Sampling Method: PP

**Containers**

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
VOLATILES-3	N	A	3	40	mL	VOA Vial
SEMIVOLATILES	N	B	1	1	L	Amb. Glass
METALS-W	N	C	1	1	L	HDPE

Sample Team: C. Short  
J. Brown

**PURGE RECORD:**

Initial	Time(24hr)	DepthtoWater (ft)	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)	Purge Volume (gal)
See KD3003 log.									
Sample:									

Logged BY / Date: [Signature] 02/18/99 Reviewed BY / Date: [Signature] 2/22/99



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

# Sample Collection Log

**Project:** 774645 Fort McClellan  
Manager: Jeanie Yacoub

RFA / COC Number: 171-021899-542L

Site: Former Printing Plant, Building 144 (Parcel 1)

Collection Date: 02/18/99

Location Code: PPMP-171-GP03

Collection Time: 1115

Sample Number: KD3005

Start Depth: N/A

Sample Name: PPMP-171-GP03-GW-KD3005-FS

End Depth: N/A

Sampling Method: PP

**Containers**

Analytical Suite Flt Frtn Qty Size Units Type

VOLATILES 3	N A	3	40	mL	VOA Vial
SEMIVOLATILES	N B	1	1	L	Amb. Glass
METALS-W	N C	1	1	L	HDPE

Sample Team: C. Skovt  
J. Brown

**PURGE RECORD:**

Initial	Time(24hr)	DepthtoWater (ft)	Eh (mV)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DissOxygen (ppm)	Temperature (C)	Purge Volume (gal)
---------	------------	----------------------	------------	------------	-------------------------	--------------------	---------------------	--------------------	-----------------------

See 171-021899-542L

Sample:

Logged BY / Date:

[Signature]  
02/18/99

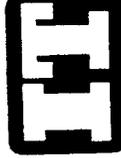
Reviewed BY / Date:

[Signature] 2/22/99

**CHAIN OF CUSTODY FORMS**

Quote # 25476

19A200163



# INTERNATIONAL TECHNOLOGY CORPORATION

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 171-011999-QSK  
Page 1 of 2

Project Number: 774645

Samples Shipment Date: 20-JAN-99

Bill To: Duane Nielsen

Project Name: Fort McClellan

Lab Destination: Quanterra Environmental Services - Knoxville

312 Directors Drive  
Knoxville TN 37923

Sample Coordinator: John W. Andrew

Lab Contact: John Reynolds

Report To: Duane Nielsen

Turnaround Time: *Normal*

Project Contact: Randy McBride

312 Directors Drive

Carrier/Waybill No.: Quality Express/ Courier PK-121711

Knoxville TN 37923

Special Instructions: *NONE*

Possible Hazard Identification:

Non-hazard  Flammable  Skin Irritant  Poison B  Unknown

Return to Client  Disposal by Lab  Archive

1. Relinquished By *[Signature]*  
(Signature/Affiliation)

Date: *01/20/99*  
Time: *0830*

1. Received By *[Signature]*  
(Signature/Affiliation)

Date: *1-20-99*  
Time: *08:30*

2. Relinquished By *[Signature]*  
(Signature/Affiliation)

Date: *1-20-99*  
Time: *1310*

2. Received By *[Signature]*  
(Signature/Affiliation)

Date: *1-20-99*  
Time: *13:10*

3. Relinquished By  
(Signature/Affiliation)

Date:  
Time:

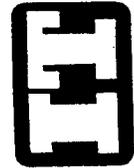
3. Received By  
(Signature/Affiliation)

Date:  
Time:

Comments: *NONE*

*Recd at 20  
Custody Seals Intact  
JW 1-20-99*

Sample No	Sample Name	Sample Date	Sample Time	Container	Qty	Preservative	Requested Testing Program	FII CID	Condition On Receipt
KD0001	PPMP-171-GP01-SS-KD0001-REG	19-JAN-99	15:20	5 g EnCore	3	None except cool to 4 C	Volatiles by 8260B	N	
KD0001	PPMP-171-GP01-SS-KD0001-REG	19-JAN-99	15:20	8 oz CWM	1	None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8270C	N	
KD0001-MS	PPMP-171-GP01-SS-KD0001-MS-MS	19-JAN-99	15:20	5 g EnCore	3	None except cool to 4 C	Volatiles by 8260B	N	
KD0001-MS	PPMP-171-GP01-SS-KD0001-MS-MS	19-JAN-99	15:20	8 oz CWM	1	None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8260B	N	
KD0001-MS	PPMP-171-GP01-SS-KD0001-MSD-MS	19-JAN-99	15:20	5 g EnCore	3	None except cool to 4 C	Volatiles by 8260B	N	
KD0001-MS	PPMP-171-GP01-SS-KD0001-MSD-MS	19-JAN-99	15:20	8 oz CWM	1	None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8270C	N	



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**ANALYSIS REQUEST AND  
CHAIN OF CUSTODY RECORD**

Reference Document No: 171-011999-QSK  
Page 2 of 2

H9A200163

Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Fill CID	Condition On Receipt
KD0002	PPMP-171-GP01-DS-KD0002-REG	19-JAN-99	15:35	5 g EnCore	3 None except cool to 4 C	Volatiles by 8260B	N	
KD0002	PPMP-171-GP01-DS-KD0002-REG	19-JAN-99	15:35	8 oz CWM	1 None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8270C	N	
KD0003	PPMP-171-GP02-SS-KD0003-REG	19-JAN-99	15:55	5 g EnCore	3 None except cool to 4 C	Volatiles by 8260B	N	
KD0003	PPMP-171-GP02-SS-KD0003-REG	19-JAN-99	15:55	8 oz CWM	1 None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8270C	N	
KD0004	PPMP-171-GP02-DS-KD0004-REG	19-JAN-99	16:10	8 oz CWM	1 None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8270C	N	
KD0004	PPMP-171-GP02-DS-KD0004-REG	19-JAN-99	16:10	5 g EnCore	3 None except cool to 4 C	Volatiles by 8260B	N	
KD0005	PPMP-171-GP03-SS-KD0005-REG	19-JAN-99	10:25	5 g EnCore	3 None except cool to 4 C	Volatiles by 8260B	N	
KD0005	PPMP-171-GP03-SS-KD0005-REG	19-JAN-99	10:25	8 oz CWM	1 None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8270C	N	
KD0006	PPMP-171-GP03-SS-KD0006-FD	19-JAN-99	10:25	5 g EnCore	3 None except cool to 4 C	Volatiles by 8260B	N	
KD0006	PPMP-171-GP03-SS-KD0006-FD	19-JAN-99	10:25	8 oz CWM	1 None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8270C	N	
KD0008	PPMP-171-GP03-DS-KD0008-REG	19-JAN-99	10:50	5 g EnCore	3 None except cool to 4 C	Volatiles by 8260B	N	
KD0008	PPMP-171-GP03-DS-KD0008-REG	19-JAN-99	10:50	8 oz CWM	1 None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8270C	N	

**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**ANALYSIS REQUEST AND  
CHAIN OF CUSTODY RECORD**

Reference Document No: 171-011999-SADL  
Page 1 of 1

Project Number: 774845

Samples Shipment Date: 19-JAN-99

Bill To: Duane Nielsen

Project Name: Fort McClellan

Lab Destination: USACE South Atlantic Division Laboratory

312 Directors Drive

Knoxville

TN 37923

Sample Coordinator: John W. Andrew

Lab Contact: Blaise Willis

Report To: Duane Nielsen

Turnaround Time: *NONE*

Project Contact: Randy McBride

312 Directors Drive

Knoxville

TN 37923

Carrier/Waybill No.: Fed Ex7901 9201 2748

Special Instructions: *NONE*

Possible Hazard Identification:

Non-hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal:

Return to Client  Disposal by Lab  Archive  (mos.)

1. Relinquished By *[Signature]*

Date: *01/19/99*  
Time: *1430*

1. Received By *[Signature]* Date: \_\_\_\_\_  
(Signature/Affiliation) Time: \_\_\_\_\_

2. Relinquished By *[Signature]*

Date: \_\_\_\_\_  
Time: \_\_\_\_\_

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

3. Relinquished By *[Signature]*

Date: \_\_\_\_\_  
Time: \_\_\_\_\_

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

Comments:

Sample No	Sample Name	Sample Date	Sample Time	Container	Qty	Preservative	Requested Testing Program	Fill CID	Condition On Receipt
KD0007	PPMP-171-GP03-SS-KD0007-FS	19-JAN-99	10:25	5 g EnCore	3	None except cool to 4 C	Volatiles by 8260B	N	
KD0007	PPMP-171-GP03-SS-KD0007-FS	19-JAN-99	10:25	8 oz CWM	1	None except cool to 4 C	TAL Metals by 6010B/7471A - Soils, Semivolatiles by 8270C	N	

Quote # 25476

HA B200116



# INTERNATIONAL TECHNOLOGY CORPORATION

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 171-021899-QSK  
Page 1 of 2

Project Number: 774645

Samples Shipment Date: 19-FEB-99

Bill To: Duane Nielsen

Project Name: Fort McClellan

Lab Destination: Quanterra Environmental Services - Knoxville

312 Directors Drive  
Knoxville TN 37923

Sample Coordinator: John W. Andrew

Lab Contact: John Reynolds

Report To: Duane Nielsen

Turnaround Time: *NONMAL*

312 Directors Drive

Carrier/Waybill No.: Courier/ Quality Express

TN 37923

*PK121712*

Special Instructions: *NONMAL*

Possible Hazard Identification:

Non-hazard  Flammable  Skin Irritant  Poison B  Unknown

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

1. Relinquished By *[Signature]*  
(Signature/Affiliation) *IT Corp*

Date: *02/19/99*  
Time: *1300*

1. Received By *[Signature]*  
(Signature/Affiliation) *Patrick G. A*

Date: *19 Feb 99*  
Time: *1300*

2. Relinquished By *[Signature]*  
(Signature/Affiliation) *Patrick G. A*

Date: *20 Feb 99*  
Time: *0918*

2. Received By *[Signature]*  
(Signature/Affiliation) *Bryon Blomquist*

Date: *2/20/99*  
Time: *0918*

3. Relinquished By  
(Signature/Affiliation)

Date:  
Time:

Date:  
Time:

Comments: *NONMAL*

*Rec'd @ 2°C  
w/ custody seals  
Intact BPS 2/20/99*

Sample No	Sample Name	Sample Date	Sample Time	Container	Qty	Preservative	Requested Testing Program	File CID	Condition On Receipt
021899-TB	FIELDQC-BW-021899-TB-TB	18-FEB-99	07:00	40 ml VOA Vial	2	HCl<pH 2	Volatiles by 8260B	N	
KD3001	PPMP-171-GP01-GW-KD3001-REG	18-FEB-99	08:55	40 mL VOA Vial	3	HCl<pH 2	Volatiles by 8260B	N	
KD3001	PPMP-171-GP01-GW-KD3001-REG	18-FEB-99	08:55	1 L Amb. Glass	1	None except cool to 4 C	Semivolatiles by 8270C	N	
KD3001	PPMP-171-GP01-GW-KD3001-REG	18-FEB-99	08:55	1 L HDPE	1	HNO3<pH 2	TAL Metals by 6010B/7470A - Water	N	<i>PH&lt;2</i>
KD3001-MS	PPMP-171-GP01-GW-KD3001-MS-MS	18-FEB-99	08:55	40 mL VOA Vial	3	HCl<pH 2	Volatiles by 8260B	N	
KD3001-MS	PPMP-171-GP01-GW-KD3001-MS-MS	18-FEB-99	08:55	1 L Amb. Glass	1	None except cool to 4 C	Semivolatiles by 8270C	N	
KD3001-MS	PPMP-171-GP01-GW-KD3001-MS-MS	18-FEB-99	08:55	1 L HDPE	1	HNO3<pH 2	TAL Metals by 6010B/7470A - Water	N	<i>PH&lt;2</i>
KD3001*	PPMP-171-GP01-GW-KD3001-MSD-MS	18-FEB-99	08:55	40 mL VOA Vial	1	HCl<pH 2	Volatiles by 8260B	N	<i>PH&lt;2</i>

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# INTERNATIONAL TECHNOLOGY CORPORATION



## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 171-021899-QSK

Page 2 of 2

Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	FI	CID	Condition On Receipt
KD3001-MS	PPMP-171-GP01-GW-KD3001-MSD-MS	18-FEB-99	08:55	1 L Amb. Glass	1 None except cool to 4 C	Semivolatiles by 8270C	N		
KD3001-MS	PPMP-171-GP01-GW-KD3001-MSD-MS	18-FEB-99	08:55	1 L HDPE	1 HNO3<pH 2	TAL Metals by 6010B/7470A - Water	N		PH<2
KD3003	PPMP-171-GP03-GW-KD3003-REG	18-FEB-99	11:15	40 mL VOA Vial	3 HCl<pH 2	Volatiles by 8260B	N		
KD3003	PPMP-171-GP03-GW-KD3003-REG	18-FEB-99	11:15	1 L Amb. Glass	1 None except cool to 4 C	Semivolatiles by 8270C	N		
KD3003	PPMP-171-GP03-GW-KD3003-REG	18-FEB-99	11:15	1 L HDPE	1 HNO3<pH 2	TAL Metals by 6010B/7470A - Water	N		PH<2
KD3004	PPMP-171-GP03-GW-KD3004-FD	18-FEB-99	11:15	40 mL VOA Vial	3 HCl<pH 2	Volatiles by 8260B	N		
KD3004	PPMP-171-GP03-GW-KD3004-FD	18-FEB-99	11:15	1 L Amb. Glass	1 None except cool to 4 C	Semivolatiles by 8270C	N		
KD3004	PPMP-171-GP03-GW-KD3004-FD	18-FEB-99	11:15	1 L HDPE	1 HNO3<pH 2	TAL Metals by 6010B/7470A - Water	N		PH<2

H9B180156



# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 171-021799-QSK  
Page 1 of 1

Project Number: 774645

Samples Shipment Date: 18-FEB-99

Bill To: Duane Nielsen

Project Name: Fort McClellan

Lab Destination: Quanterra Environmental Services - Knoxville

312 Directors Drive  
Knoxville TN 37923

Sample Coordinator: John W. Andrew

Lab Contact: John Reynolds

Report To: Duane Nielsen

Turnaround Time: *Normal*

Project Contact: Randy McBride

312 Directors Drive  
Knoxville TN 37923

Carrier/Waybill No.: Quality Express/ Courier

### Special Instructions:

### Possible Hazard Identification:

Non-hazard  Flammable  Skin Irritant  Poison B  Unknown

### Sample Disposal:

Return to Client  Disposal by Lab  Archive (mos.)

1. Relinquished By *[Signature]*

Date: 2/18/99  
Time: 0830

1. Received By *[Signature]*

Date: 2-18-99  
Time: 0830

2. Relinquished By *[Signature]*

Date: 2-18-99  
Time: 1310

2. Received By *[Signature]*

Date: 2-18-99  
Time: 1310

3. Relinquished By

Date:

3. Received By

Date:

### Comments:

*Cracked vials intact  
repacked at 2°C  
BKS 2-18-99*

Sample No	Sample Name	Sample Date	Sample Time	Container	Qty	Preservative	Requested Testing Program	File CID	Condition On Receipt
KD3002	PPMP-171-GP02-GW-KD3002-REG	17-FEB-99	15:45	40 mL VOA Vial	3	HCl-sph 2	Volatiles by 8260B	N	
KD3002	PPMP-171-GP02-GW-KD3002-REG	17-FEB-99	15:45	1 L Amb. Glass	1	None except cool to 4 C	Semivolatiles by 8270C	N	
KD3002	PPMP-171-GP02-GW-KD3002-REG	17-FEB-99	15:45	1 L HDPE	1	HNO3-sph 2	TAL Metals by 6010B/7470A - Water	N	114-2



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**ANALYSIS REQUEST AND  
CHAIN OF CUSTODY RECORD**

Reference Document No: 171-021899-SADL  
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: USACE South Atlantic Division Laboratory

Lab Contact: Blaise Willis

Project Contact: Randy McBride

Carrier/Waybill No.: Fed Ex/ 7916 9004 6982

Bill To: Duane Nielsen

312 Directors Drive  
Knoxville TN 37923

Report To: Duane Nielsen

312 Directors Drive  
Knoxville TN 37923

Special Instructions: *NONE*

**Possible Hazard Identification:**

Non-hazard  Flammable  Skin Irritant  Poison B  Unknown

**Sample Disposal:**

Return to Client  Disposal by Lab  Archive  (mos.)

1. Relinquished By *[Signature]*

Date: *02/18/99*  
Time: *1330*

1. Received By *[Signature]* Date: \_\_\_\_\_  
(Signature/Affiliation) Time: \_\_\_\_\_

2. Relinquished By *[Signature]*

Date: \_\_\_\_\_  
Time: \_\_\_\_\_

2. Received By *[Signature]* Date: \_\_\_\_\_  
(Signature/Affiliation) Time: \_\_\_\_\_

3. Relinquished By *[Signature]*

Date: \_\_\_\_\_  
Time: \_\_\_\_\_

3. Received By *[Signature]* Date: \_\_\_\_\_  
(Signature/Affiliation) Time: \_\_\_\_\_

Comments: *NONE*

Sample No	Sample Name	Sample Date	Sample Time	Container	Qty	Ctr	Preservative	Requested Testing Program	FII	CID	Condition On Receipt
021899-TB2	FIELDQC-BW-021899-TB2-TB	18-FEB-99	07:00	40 ml VOA Vial	2	3	HCl-pH 2	Volatiles by 8280B	N	N	
KD3005	PPMP-171-GP03-GW-KD3005-FS	18-FEB-99	11:15	40 mL VOA Vial	3		HCl-pH 2	Volatiles by 8280B	N	N	
KD3005	PPMP-171-GP03-GW-KD3005-FS	18-FEB-99	11:15	1 L Amb. Glass	1		None except cool to 4 C	Semivolatiles by 8270C	N	N	
KD3005	PPMP-171-GP03-GW-KD3005-FS	18-FEB-99	11:15	1 L HDPE	1		HNO3-pH 2	TAL Metals by 6010B/7470A - Water	N	N	

**APPENDIX B**  
**BORING LOGS AND WELL LOGS**

# HTRW DRILLING LOG

**HOLE NUMBER**

PPMP-171-GP01

1. Company name: **IT Corporation**

2. Drill Subcontractor: **TEG / MILLER DRILLING**

Sheet 1 of 4 sheets

3. Project: **Fort McClellan**

4. Location: **Former Printing Plant Building 144**

5. Name of driller: **Sammy McDaniel/Doug Bishop**

6. Mfr designation of drill: **Megaprobe/CME-75**

7. Sizes and types of drilling and sampling equipment:

Direct Push, Hollow Stem Auger

4' X 2" acetate-line soil sampler

4 1/4" ID augers w/ 2' X 2" split-spoons

8. Hole location: **PPMP-171-GP01**

9. Surface elevation: **791.91**

10. Date started: **01/15/99**

11. Date completed: **01/19/99**

12. Overburden thickness: **>40**

15. Depth groundwater encountered: **39 Ft**

13. Depth drilled into rock: **NA**

16. Depth to water and elapsed time after drilling completed:

14. Total depth of hole: **40**

17. Other water level measurements (specify):

18. Geotechnical samples: no

Disturbed: **NA**

Undisturbed: **NA**

19. Total no. of core boxes: **NA**

20. Samples for chemical analysis:

VOC

Metals

Other (specify)

Other (specify)

Other (specify)

21. Total core recovery:

X

X

SVOCs

N/A

22. Disposition of hole:

Backfilled

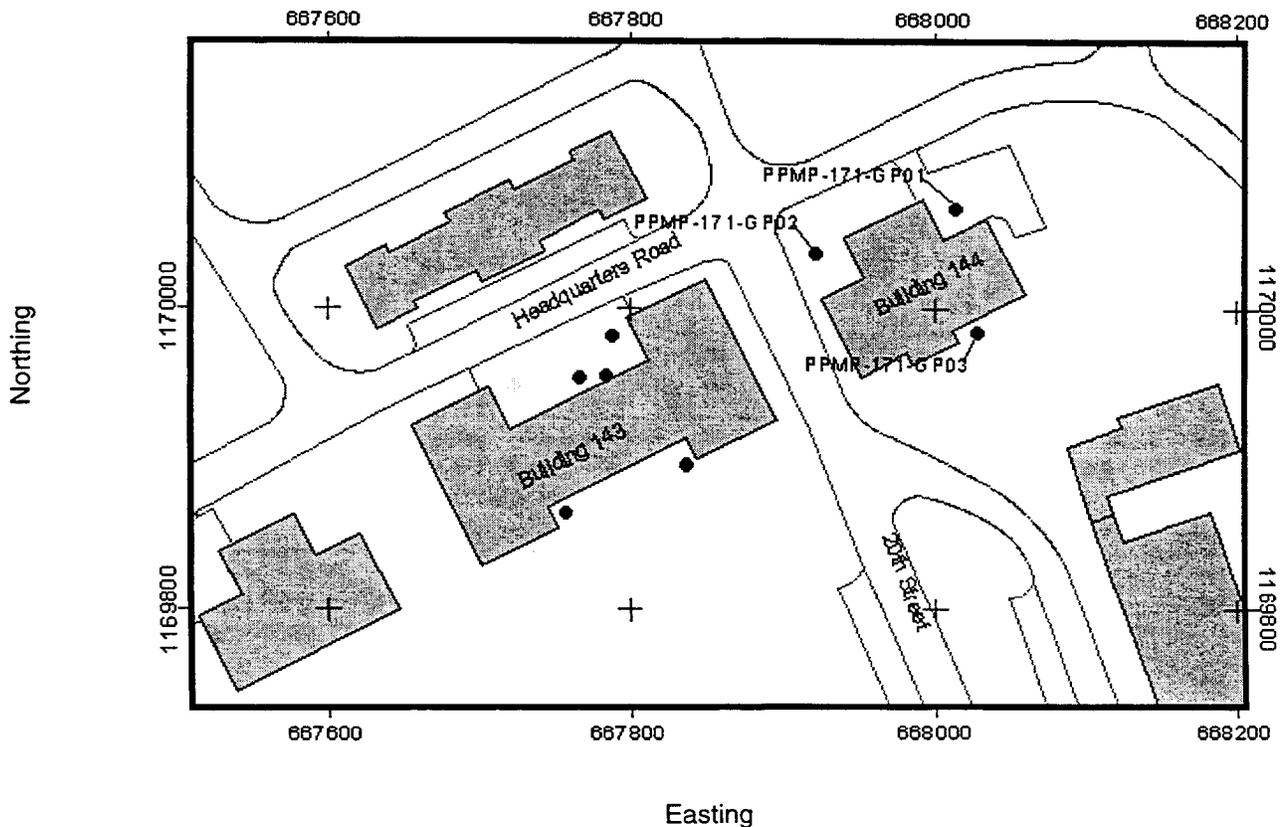
Monitoring well

Other (specify)

23. Signature of inspector:

Temp. well

**LOCATION SKETCH/COMMENTS:**



Project: **Fort McClellan**

Hole no.: **PPMP-171-GP01**





# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-171-GP01

Project: Fort McClellan

Geologist: J. MESSER, S. HSU

Sheet 4 of 4 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)
	38	SHALE: Black.	sh						
	39								wet @ 39 ft
	40		sh						Bottom of borehole - 40 ft

# HTRW DRILLING LOG

**HOLE NUMBER**

PPMP-171-GP02

1. Company name: **IT Corporation**

2. Drill Subcontractor: **TEG / MILLER DRILLING**

Sheet 1 of 4 sheets

3. Project: **Fort McClellan**

4. Location: **Former Printing Plant Building 144**

5. Name of driller: **Sammy McDaniel/Chris Cutter**

6. Mfr designation of drill: **Geoprobe/Mobile B-61**

7. Sizes and types of drilling and sampling equipment:

Direct Push, Hollow Stem Auger

4' X 2" acetate-lined soil sampler

4 1/2" ID augers w/ 2' X 2" split-spoons

8. Hole location: **PPMP-171-GP02**

9. Surface elevation: **793.86**

10. Date started: **01/19/99**

11. Date completed: **01/19/99**

12. Overburden thickness: **>40**

15. Depth groundwater encountered: **32 ft**

13. Depth drilled into rock: **NA**

16. Depth to water and elapsed time after drilling completed: **28 ft after 1/2 hour**

14. Total depth of hole: **40**

17. Other water level measurements (specify):

18. Geotechnical samples: **no**

Disturbed: **NA**

Undisturbed: **NA**

19. Total no. of core boxes: **NA**

20. Samples for chemical analysis:

VOC

Metals

Other (specify)

Other (specify)

Other (specify)

21. Total core recovery:

X

X

SVOCs

N/A

22. Disposition of hole:

Backfilled

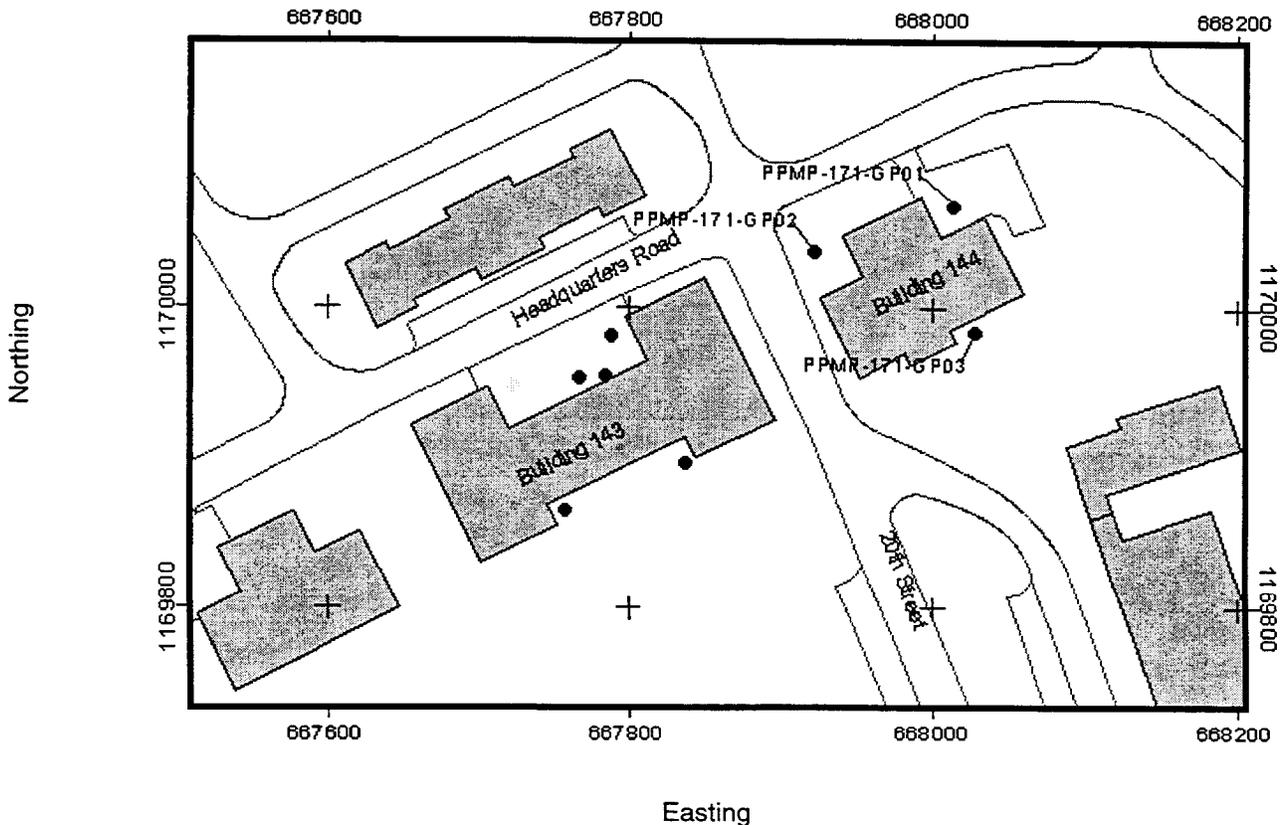
Monitoring well

Other (specify)

23. Signature of inspector:

Temp. well

## LOCATION SKETCH/COMMENTS:



Project: **Fort McClellan**

Hole no.: **PPMP-171-GP02**

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-171-GP02

Project: Fort McClellan

Geologist: J. MESSER, M. GILES

Sheet 2 of 4 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	0	sm: Reddish brown SAND, some Silt.	sm		Organic Vapor = 0.0ppm		KD0003		rec 12"
1	1	cl: Red mottled CLAY, some Gravel, decreasing Gravel with depth.	cl		Organic Vapor = 0.0ppm				rec 20"
2	2				Organic Vapor = 0.0ppm				
3	3				Organic Vapor = 0.0ppm				rec 32"
790	4				Organic Vapor = 0.0ppm				
5	5								
6	6				Organic Vapor = 0.0ppm				rec 24"
7	7								
8	8						KD0004		
785	9	Weathered SHALE: soft.	sh						Direct-push refusal
10	10	ml: Semi-firm SILT, low plasticity, dry, reddish brown to brown, with red and white mottling.	ml						
11	11								
12	12								
13	13								blows 5, 10, 20, 22 rec 1.8'
780	14				Organic Vapor = 1.56ppm				
15	15								
16	16								
17	17								
18	18								blows 6, 10, 12, 15 rec 1.7'



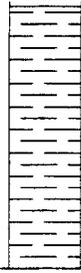
# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-171-GP02

Project: Fort McClellan

Geologist: J. MESSER, M. GILES

Sheet 4 of 4 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)
		Weathered SHALE: Soft and moist.	sh						Bottom of borehole - 40 ft

755

38  
39  
40

38  
39  
40

# HTRW DRILLING LOG

**HOLE NUMBER**

PPMP-171-GP03

1. Company name: **IT Corporation**

2. Drill Subcontractor: **TEG / MILLER DRILLING**

Sheet 1 of 4 sheets

3. Project: **Fort McClellan**

4. Location: **Former Printing Plant Building 144**

5. Name of driller: **Sammy McDaniel/Jeff Parnell**

6. Mfr designation of drill: **Megaprobe/Mobile B-61**

7. Sizes and types of drilling and sampling equipment:

Direct Push, Hollow Stem Auger

4' X 2" acetate-lined soil sampler

4 1/2" ID augers w/ 2' X 2" split-spoons

8. Hole location **PPMP-171-GP03**

9. Surface elevation: **794.95**

10. Date started: **01/19/99**

11. Date completed: **01/19/99**

12. Overburden thickness: **>46**

15. Depth groundwater encountered: **42 ft**

13. Depth drilled into rock: **NA**

16. Depth to water and elapsed time after drilling completed:

14. Total depth of hole: **46**

17. Other water level measurements (specify):

18. Geotechnical samples: no

Disturbed: **NA**

Undisturbed: **NA**

19. Total no. of core boxes: **NA**

20. Samples for chemical analysis:

VOC

Metals

Other (specify)

Other (specify)

Other (specify)

21. Total core recovery:

X

X

SVOCs

N/A

22. Disposition of hole:

Backfilled

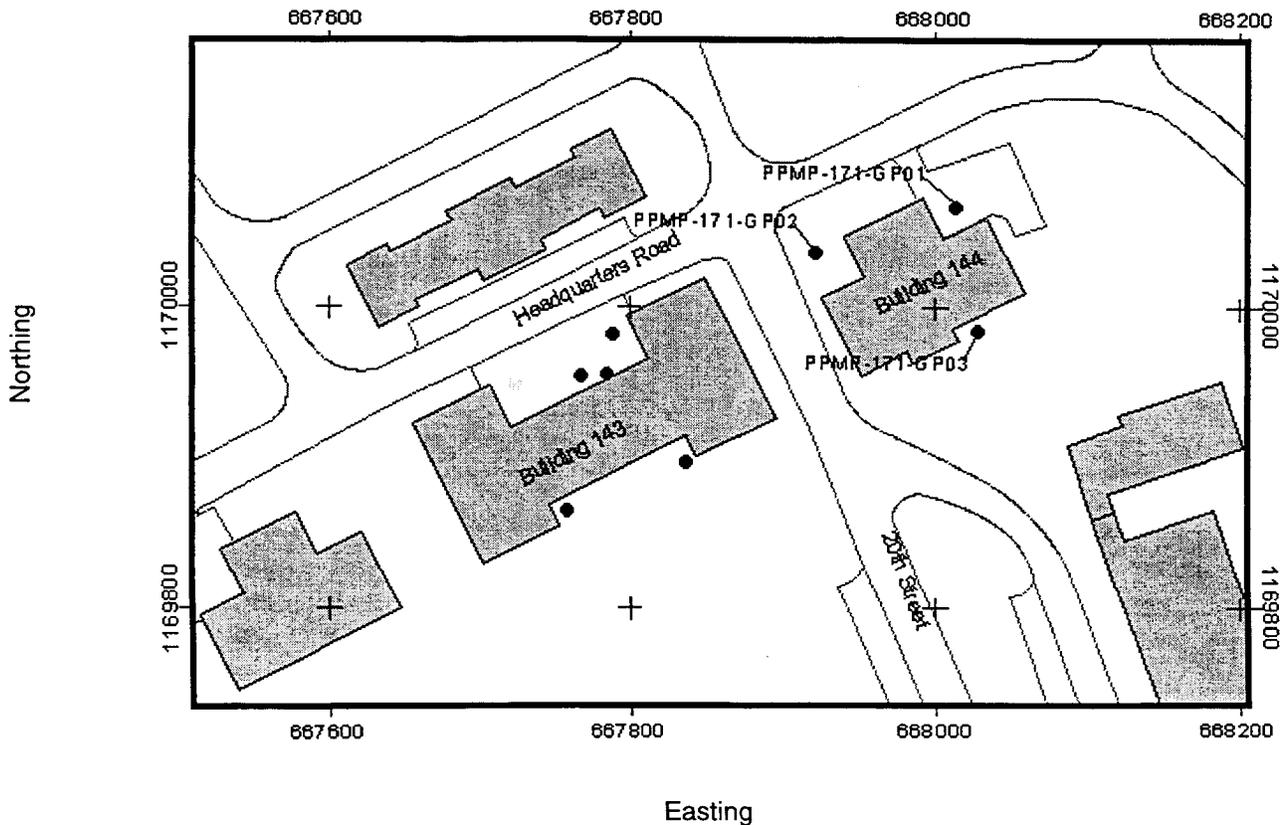
Monitoring well

Other (specify)

23. Signature of inspector:

Temp. well

**LOCATION SKETCH/COMMENTS:**



Project: **Fort McClellan**

Hole no.: **PPMP-171-GP03**



# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-171-GP03

Project: Fort McClellan

Geologist: J. MESSER, M. GILES

Sheet 3 of 4 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)
19		ml: Firm SILT with Clay, breaks easily, dry, tan to red.							blows 12 25 50 for 6" rec 1.5'
775	20				Organic Vapor = 0.0ppm				
	21				Organic Vapor = 0.0ppm				Descriptions from auger cuttings
	22								
	23								
	24								
770	25								
	26		ml						
	27								
	28								
	29								
765	30								
	31								
	32								
	33	Weathered SHALE: dry, tan with white and gray mottling. Gray color at 34.5'							
	34								
760	35								
	36								
	37		sh						

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-171-GP03

Project: Fort McClellan

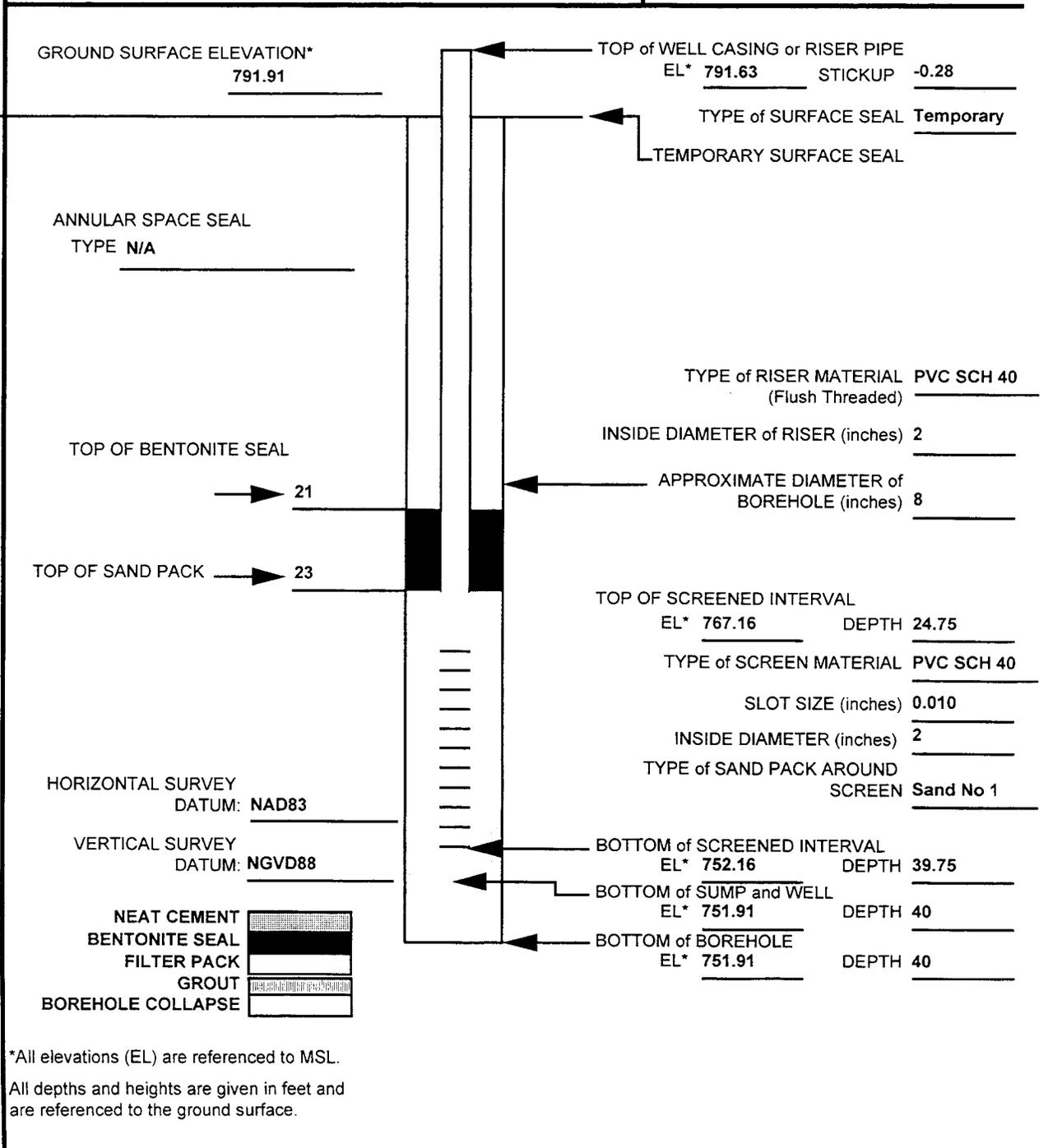
Geologist: J. MESSER, M. GILES

Sheet 4 of 4 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)
									Descriptions from auger cuttings
755	40	Weathered SHALE: dry, gray, becoming wet at 46.0'.							
	41		sh						
	42								
	43								
	44								
750	45								Water observed in borehole @ 46 ft
	46								Bottom of borehole - 46 ft

## MONITORING WELL INSTALLATION DETAIL

<b>PROJECT:</b> Fort McClellan, SAD TERC	<b>WELL NO:</b> PPMP-171-GP01
<b>LOCATION:</b> Anniston, AL	<b>DRILLING METHOD:</b> Hollow Stem Auger
<b>CLIENT:</b> USACE Mobile District	<b>INSTALLATION DATE:</b> 01/15/99
<b>CONTRACTOR:</b> MILLER	<b>NORTHING:</b> 1170065.97
<b>DRILLER:</b> D. BISHOP, E. LEE	<b>EASTING:</b> 668013.77
<b>IT FIELD REPRESENTATIVE:</b> S. HSU	<b>JOB NO:</b> 774645A

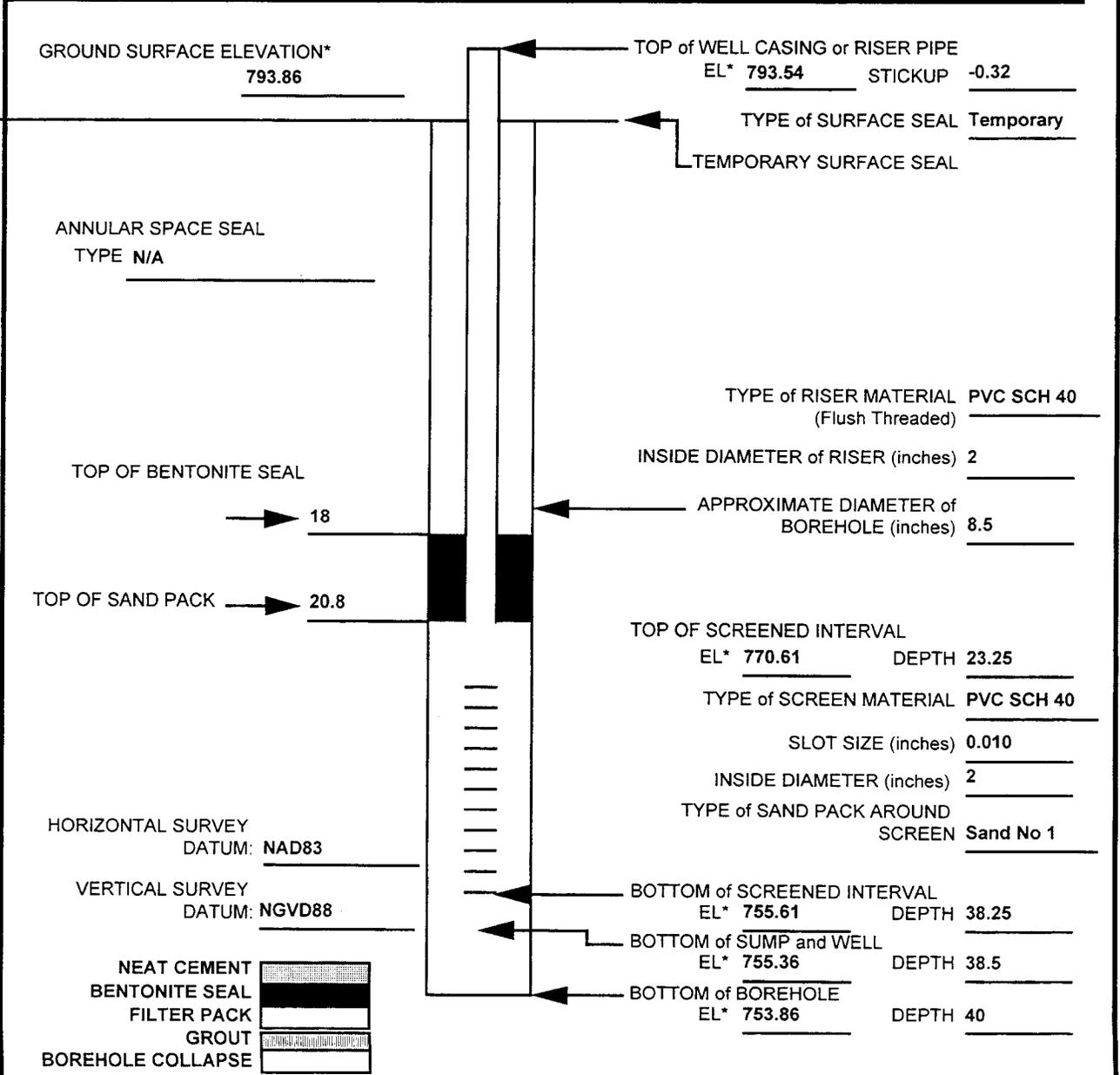


\*All elevations (EL) are referenced to MSL.

All depths and heights are given in feet and are referenced to the ground surface.

## MONITORING WELL INSTALLATION DETAIL

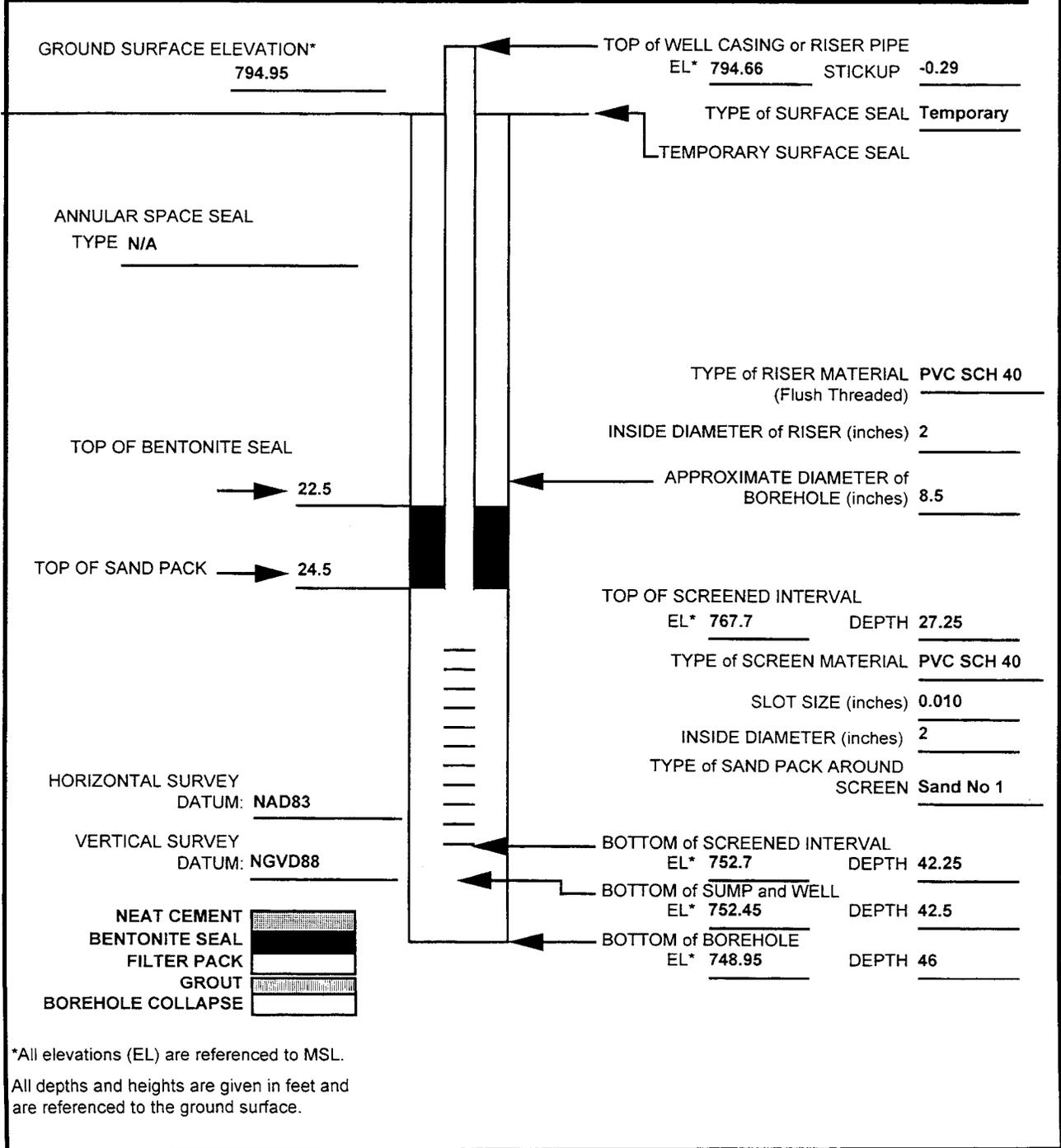
<b>PROJECT:</b> Fort McClellan, SAD TERC <b>LOCATION:</b> Anniston, AL <b>CLIENT:</b> USACE Mobile District <b>CONTRACTOR:</b> MILLER DRILLING <b>DRILLER:</b> C. CUTTER <b>IT FIELD REPRESENTATIVE:</b> M. GILES	<b>WELL NO:</b> PPMP-171-GP02 <b>DRILLING METHOD:</b> Hollow Stem Auger <b>INSTALLATION DATE:</b> 01/19/99 <b>NORTHING:</b> 1170034.74 <b>EASTING:</b> 667922.2 <b>JOB NO:</b> 774645A
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\*All elevations (EL) are referenced to MSL.  
 All depths and heights are given in feet and are referenced to the ground surface.

## MONITORING WELL INSTALLATION DETAIL

<b>PROJECT:</b> Fort McClellan, SAD TERC <b>LOCATION:</b> Anniston, AL <b>CLIENT:</b> USACE Mobile District <b>CONTRACTOR:</b> MILLER DRILLING <b>DRILLER:</b> J. PARNELL <b>IT FIELD REPRESENTATIVE:</b> M. GILES	<b>WELL NO:</b> PPMP-171-GP03 <b>DRILLING METHOD:</b> Hollow Stem Auger <b>INSTALLATION DATE:</b> 01/15/99 <b>NORTHING:</b> 1169982.19 <b>EASTING:</b> 668027.55 <b>JOB NO:</b> 774645A
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**APPENDIX C**  
**WELL DEVELOPMENT LOGS**

Parcel 171

# Groundwater Well Development Log

Fort McClellan, Alabama

PROJECT: 774645 COST CODE: 01020300 DELIVERY ORDER CK05

Page 1 of 2

SITE ID: LOCATION ID: PPMP-171-GP01 (Well Number) Static Water Level: 26.8 ft

Target Purge Volume:      gal WELL DEPTH: 37.57 (ft from TOC) Well Casing Diameter: (opt) 2" Recovery Depth:     

Date	Time	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gal)	Temp C°	pH	Cond. mMhos/cm	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
5 Feb 1999	10:30											
	10:35	1.0	29.7	5	17.6	5.46	.129	999	3.17	N/A	W. Allen	gray, muddy
	10:40	1.0	31.1	10	18.0	5.36	.086	999	2.51			" "
	10:45	1.0	32.2	15	18.0	5.43	.082	999	2.35			" "
	10:55	1.0	32.9	25	18.2	5.57	.082	999	2.45			gray, mucky
	11:05	1.0	32.95	35	18.3	5.66	.085	846	8.99			" "
	11:15	.5	32.5	40	18.1	5.78	.089	999	2.64			" "
	11:25	.5	32.3	45	18.3	5.68	.086	534	2.55			gray, cloudy
	11:35	.5	32.1	50	17.0	5.80	.089	92.5	8.99			clearing
	11:45	.5	31.7	55	18.0	5.78	.088	74.3	2.86			" "
	11:55	.5	32.15	60	18.1	5.73	.089	69.8	8.95			" "
	12:05	.5	32.15	65	18.1	5.75	.090	45.8	2.68			" "

Parcel 171

# Groundwater Well Development Log

Fort McClellan, Alabama

PROJECT: 774645 COST CODE: 01020300 DELIVERY ORDER CK05

SITE ID: PMP-171-601 (Well Number) Static Water Level: 24.85 ft  
 Target Purge Volume:      gal WELL DEPTH: 31.57 (ft from TOC) Well Casing Diameter: (opt) 2" Recovery Depth:     

Date	Time	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gal)	Temp C°	pH	Cond. mMhos/cm	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
5 Feb	12:15	1.5	32.35	70	17.6	5.79	.089	25.7	3.44	N/A	W. Allen	Clear
	12:25	1.5	32.35	75	17.2	5.72	.089	11.69	2.13			" "
	:											
	:											
	:											
	:											
	:											
	:											
	:											
	:											

Parcel 71

**Groundwater Well Development Log**

Fort McClellan, Alabama

PROJECT: 774645 COST CODE: 01020300 DELIVERY ORDER CK05

SITE ID: PPMP-171-602 (Well Number) Static Water Level: 27.4 ft

Target Purge Volume: 41.9 gal WELL DEPTH: 41.9 (ft from TOC) Well Casing Diameter: (opt) 2" Recovery Depth: \_\_\_\_\_

Date	Time	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gl)	Temp C°	pH	Cond. mMhos/cm	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
4 Feb. 1999	11:30											
	11:35	1.0	29.4	5	18.3	5.76	.084	999	3.79	N/A	W. Allen	gray, muddy
	11:40	1.0	30.75	10	18.9	5.69	.108	999	8.67			" "
	11:45	1.0	32.5	15	19.1	5.81	.079	738	8.65			gray, cloudy
	11:55	1.0	34.5	20	19.2	5.88	.071	658	8.70			" "
	12:05	1.0	35.5	25	19.4	5.91	.070	433	8.79			" "
	12:11	1.0	Below pump	31	-	-	-	-	-			Stopped / well dry
	12:35	.3	32.4	31	-	-	-	-	-			Restarted
	13:40	.3	32.6	32.5	21.0	5.81	.073	999	2.57			gray, muddy
	13:45	.3	32.96	34.0	18.9	5.90	.072	999	2.50			" "
	13:50	.3	33.4	35.5	20.8	5.84	.075	644	4.43			cloudy
	13:55	.3	35.0	37.0	21.1	5.84	.085	341	4.08			" "

Parcel 171

# Groundwater Well Development Log

Fort McClellan, Alabama

PROJECT: 774645 COST CODE: 01020300 DELIVERY ORDER CK05

SITE ID: LOCATION ID: PPMP-171-GP02 (Well Number) Static Water Level: 27.4 ft

Target Purge Volume: 41.9 gal WELL DEPTH: 41.9 (ft from TOC) Well Casing Diameter: (opt) 2" Recovery Depth: \_\_\_\_\_

Date	Time	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gal)	Temp C°	pH	Cond. mMhos/cm	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
4 Feb. 1999	14:05	3	35.95	40	21.6	5.75	076	812	2.20	N/A	w. allen	gray, cloudy
	14:15	3	37.9	43	20.9	5.79	071	888	1.73			"
	14:25	3	Below pump	46								"
	15:00	Only 2.5	foot of recharge, finish									Stopped / well dry
	:											
	:											
	:											
	:											
	:											
	:											
	:											

Parcel 71

# Groundwater Well Development Log

Fort McClellan, Alabama

PROJECT: 774645 COST CODE: 01020300 DELIVERY ORDER CK05

SITE ID: LOCATION ID: PMP-171-662 (Well Number) Static Water Level: 27.6 ft

Target Purge Volume:      gal WELL DEPTH: 41.9 (ft from TOC) Well Casing Diameter: (opt) 2" Recovery Depth:     

Date	Time	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gal)	Temp C°	pH	Cond. mMhos/cm	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
5 Feb. 1999	08:20	.2	28.85	1	15.3	5.54	.094	615	3.34	W/A	W. Allen	cloudy
	08:25	.2	29.4	2	17.5	5.87	.077	569	3.80			" "
	08:35	.2	31.25	4	18.6	5.90	.073	150.7	4.35			clearing
	08:45	.2	32.6	6	19.9	5.91	.072	155.6	4.83			" "
	08:55	.2	33.5	8	20.3	5.95	.073	98.1	4.65			" "
	09:05	.2	33.8	10	20.8	5.90	.075	47.6	3.41			" "
	09:15	.2	34.2	12	21.2	5.90	.075	37.1	3.61			" "
	:											
	:											
	:											
	:											

Parcel 171

# Groundwater Well Development Log

Fort McClellan, Alabama

PROJECT: 774645 COST CODE: 01020300 DELIVERY ORDER CK05

Page 1 of 2

SITE ID: PPMP-171-603 (Well Number) Static Water Level: 28.31 ft

Target Purge Volume: 2.19 gal WELL DEPTH: 41.75 (ft from TOC) Well Casing Diameter: (opt) 2" Recovery Depth: 41.75

13.41' H<sub>2</sub>O COLUMN

Date	Time	Purge Rate (gal/min)	Dynamic H <sub>2</sub> O Level (ft)	Volume Purged (gal)	Temp C°	pH	Cond. mMhos/cm	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
2-8	09:47		28.35	1	22.8	5.60	.153	614	1.72		TM	DARK BROWN
	09:49		30.91	2.5	23.2	5.37	.112	769	2.58			"
	09:53		32.12	4.5	23.6	5.34	.087	534	3.35			"
	09:57		33.30	6	23.6	5.48	.097	590	2.67			"
	10:02		35.12	8	23.5	5.61	.090	475	1.98			"
	10:12		36.15	10	23.2	5.67	.089	249	1.08			"
	10:20		37.38	12	23.1	5.86	.082	257	1.09			"
	10:29		38.82	14	22.8	5.91	.082	893	0.29			"
	10:31	←	← WELL IS DRY									"
	11:09		34.97	14.5	23.1	5.78	.082	>1K	1.96		TM	"
	11:25		36.38	16.5	23.1	5.90	.081	86	2.88		"	CLOUDY

Parcel 171

# Groundwater Well Development Log

Fort McClellan, Alabama

PROJECT: 774645 COST CODE: 01020300 DELIVERY ORDER CK05

SITE ID: \_\_\_\_\_ LOCATION ID: \_\_\_\_\_ (Well Number) Static Water Level: \_\_\_\_\_ ft  
 Target Purge Volume: \_\_\_\_\_ gal WELL DEPTH: \_\_\_\_\_ (ft from TOC) Well Casing Diameter: (opt) \_\_\_\_\_ Recovery Depth: \_\_\_\_\_

Date	Time	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gal)	Temp C°	pH	Cond. mMhos/cm	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
2-8	11:38		37.17	18.5	23.1	5.81	.083	84	2.92		Tm	CLEAR
	11:58		37.08	20	23.4	5.86	.085	47	2.09			"
	12:19		38.11	22.5	23.2	5.68	.084	89	2.21			"
	12:34		38.83	24.5	23.1	5.47	.083	115	1.00			CLOUDY
	12:41		←	25.5	PUMPED	WELL DRY		→				—
	13:24		34.87	26	23.2	5.04	.083	182	.68			CLOUDY
	13:30		←	PUMP STOPPED	AAS	STOPPED		→				—
	13:51		35.48	26.5	22.6	5.00	.084	21K	1.17			CLOUDY
	13:59		36.82	28	23.2	5.11	.084	323	3.37			"
	14:05		37.34	29	23.2	5.11	.085	39	2.78			CLEAR
↓	14:11		37.69	30	23.1	5.18	.083	13.7	2.89		↓	"

COLLECTED SAMPLE

**APPENDIX D**  
**SURVEY DATA**

## Appendix D

### Survey Data Former Printing Plant, Building 144, Parcel 171(7) Fort McClellan, Calhoun County, Alabama

Sample Location	Northing	Easting	Ground Elevation (ft msl)	Top of Casing Elevation (ft msl)
PPMP-171-GP01	1170065.97	668013.77	791.91	791.63
PPMP-171-GP02	1170034.74	667922.20	793.86	793.54
PPMP-171-GP03	1169982.19	668027.55	794.95	794.66

Horizontal coordinates were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum (NAD83), 1983.

Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

ft msl - Feet mean sea level.

NA - Not available, temporary well not installed.

**APPENDIX E**  
**SUMMARY OF VALIDATED ANALYTICAL DATA**

Summary of Validated Surface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 1

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 Depth:

PPMP-171-GP03  
 PPMP-171  
 KD0006  
 19-JAN-99  
 0 - 1

PPMP-171-GP03  
 PPMP-171  
 KD0005  
 19-JAN-99  
 0 - 1

PPMP-171-GP02  
 PPMP-171  
 KD0003  
 19-JAN-99  
 0 - 1

PPMP-171-GP01  
 PPMP-171  
 KD0001  
 19-JAN-99  
 0 - 1

VOLATILES	Units	Result	Lab Qlfr	Val Qlfr	Result	Lab Qlfr	Val Qlfr	Result	Lab Qlfr	Val
1,1,1,2-Tetrachloroethane	mg/kg	.0054	U	UJ	.0058	U	U	.0059	U	U
1,1,1-Trichloroethane	mg/kg	.0054	U	U	.0058	U	U	.0059	U	U
1,1,2,2-Tetrachloroethane	mg/kg	.0054	U	UJ	.0058	U	U	.0059	U	U
1,1,2-Trichloroethane	mg/kg	.0054	U	UJ	.0058	U	U	.0059	U	U
1,1-Dichloroethane	mg/kg	.0054	U	U	.0058	U	U	.0059	U	U
1,1-Dichloroethene	mg/kg	.0054	U	U	.0058	U	U	.0059	U	U
1,1-Dichloropropene	mg/kg	.0054	U	U	.0058	U	U	.0059	U	U
1,2,3-Trichlorobenzene	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
1,2,3-Trichloropropane	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
1,2,4-Trichlorobenzene	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
1,2,4-Trimethylbenzene	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
1,2-Dibromo-3-Chloropropane	mg/kg	.011	U	R	.012	U	R	.012	U	R
1,2-Dibromoethane	mg/kg	.0054	U	UJ	.0058	U	U	.0059	U	U
1,2-Dichlorobenzene	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
1,2-Dichloroethane	mg/kg	.0054	U	U	.0058	U	U	.0059	U	U
1,2-Dichloropropane	mg/kg	.0054	U	U	.0058	U	U	.0059	U	U
1,2-Dimethylbenzene	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
1,3,5-Trimethylbenzene	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
1,3-Dichlorobenzene	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
1,3-Dichloropropane	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
1,4-Dichlorobenzene	mg/kg	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
2-Butanone	mg/kg	.022	U	R	.023	U	R	.024	U	R

Summary of Validated Surface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 2

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 Depth:

PPMP-171-GP01  
 PPMP-171  
 KD0001  
 19-JAN-99  
 0 - 1

PPMP-171-GP02  
 PPMP-171  
 KD0003  
 19-JAN-99  
 0 - 1

PPMP-171-GP03  
 PPMP-171  
 KD0005  
 19-JAN-99  
 0 - 1

PPMP-171-GP03  
 PPMP-171  
 KD0006  
 19-JAN-99  
 0 - 1

VOLATILES	Units	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val
2-Hexanone	mg/kg	.022	U	UJ	U	.024	U	U	U	.024	U	U
4-Methyl-2-pentanone	mg/kg	.022	U	UJ	U	.024	U	U	U	.024	U	U
Acetone	mg/kg	.01	JB	B	JB	.012	JB	B	JB	.008	JB	B
Benzene	mg/kg	.0054	U	U	U	.0059	U	U	U	.0059	U	U
Bromobenzene	mg/kg	.0054	U	UJ	U	.0059	U	U	U	.0059	U	U
Bromochloromethane	mg/kg	.0054	U	U	U	.0059	U	U	U	.0059	U	U
Bromodichloromethane	mg/kg	.0054	U	U	U	.0059	U	U	U	.0059	U	U
Bromoform	mg/kg	.0054	U	UJ	U	.0059	U	U	U	.0059	U	U
Bromomethane	mg/kg	.0024	JB	B	JB	.0018	JB	B	JB	.0023	JB	B
Carbon disulfide	mg/kg	.0054	U	U	U	.0059	U	U	U	.0059	U	U
Carbon tetrachloride	mg/kg	.0054	U	U	U	.0059	U	U	U	.0059	U	U
Chlorobenzene	mg/kg	.0054	U	UJ	U	.0059	U	U	U	.0059	U	U
Chloroethane	mg/kg	.011	U	UJ	U	.012	U	UJ	U	.012	U	UJ
Chloroform	mg/kg	.0054	U	U	U	.0059	U	U	U	.0059	U	U
Chloromethane	mg/kg	.011	U	U	U	.012	U	U	U	.012	U	U
Cumene	mg/kg	.0054	U	UJ	U	.0059	U	U	U	.0059	U	U
Dibromochloromethane	mg/kg	.0054	U	UJ	U	.0059	U	U	U	.0059	U	U
Dibromomethane	mg/kg	.0054	U	UJ	U	.0059	U	U	U	.0059	U	U
Dichlorodifluoromethane	mg/kg	.011	U	UJ	U	.012	U	UJ	U	.012	U	UJ
Ethylbenzene	mg/kg	.0054	U	UJ	U	.0059	U	U	U	.0059	U	U
Hexachlorobutadiene	mg/kg	.0054	U	UJ	U	.0059	U	UJ	U	.0059	U	UJ
Methylene chloride	mg/kg	.0034	JB	B	JB	.0025	JB	B	JB	.0026	JB	B

Summary of Validated Surface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 3

Sample Location:	PPMP-171-GP01	PPMP-171-GP02	PPMP-171-GP03	PPMP-171-GP03					
Associated Site:	PPMP-171	PPMP-171	PPMP-171	PPMP-171					
Sample No:	KD0001	KD0003	KD0005	KD0006					
Sample Date:	19-JAN-99	19-JAN-99	19-JAN-99	19-JAN-99					
Depth:	0 - 1	0 - 1	0 - 1	0 - 1					
VOLATILES	Result	Lab Qlfr	Val Qlfr	Result	Lab Qlfr	Val Qlfr	Result	Lab Qlfr	Val Qlfr
Naphthalene	.0054	U	UJ	.0058	U	UJ	.0059	U	UJ
Styrene	.0054	U	UJ	.0058	U	U	.0059	U	U
Tetrachloroethene	.0054	U	UJ	.0058	U	U	.0059	U	U
Toluene	.0054	U	UJ	.0058	U	U	.0059	U	U
Trichloroethene	.0054	U	U	.0058	U	U	.0059	U	U
Trichlorofluoromethane	.011	U	U	.012	U	U	.012	U	U
Vinyl chloride	.011	U	U	.012	U	U	.012	U	U
cis-1,2-Dichloroethene	.0054	U	U	.0058	U	U	.0059	U	U
cis-1,3-Dichloropropene	.0054	U	U	.0058	U	U	.0059	U	U
m,p-Xylenes	.0054	U	UJ	.0058	U	U	.0059	U	U
n-Butylbenzene	.0054	U	UJ	.0058	U	UJ	.0059	UJ	UJ
n-Propylbenzene	.0054	U	UJ	.0058	U	UJ	.0059	UJ	UJ
o-Chlorotoluene	.0054	U	UJ	.0058	U	UJ	.0059	UJ	UJ
p-Chlorotoluene	.0054	U	UJ	.0058	U	UJ	.0059	UJ	UJ
p-Cymene	.0054	U	UJ	.0058	U	UJ	.0059	UJ	UJ
sec-Butylbenzene	.0054	U	UJ	.0058	U	UJ	.0059	UJ	UJ
sec-Dichloropropane	.0054	U	U	.0058	U	U	.0059	U	U
tert-Butylbenzene	.0054	U	UJ	.0058	U	UJ	.0059	UJ	UJ
trans-1,2-Dichloroethene	.0054	U	U	.0058	U	U	.0059	U	U
trans-1,3-Dichloropropene	.0054	U	UJ	.0058	U	U	.0059	U	U

Summary of Validated Surface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 4

Sample Location: PPMP-171-GP01  
 Associated Site: PPMP-171  
 Sample No: KD0001  
 Sample Date: 19-JAN-99  
 Depth: 0 - 1

SEMIVOLATILES

	Units	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr
1,2,4-Trichlorobenzene	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
1,2-Dichlorobenzene	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
1,3-Dichlorobenzene	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
1,4-Dichlorobenzene	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
2,4,5-Trichlorophenol	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
2,4,6-Trichlorophenol	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
2,4-Dichlorophenol	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
2,4-Dimethylphenol	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
2,4-Dinitrophenol	mg/kg	1.7	U	U	1.9	U	U	U	U	1.9	U	U	U
2,4-Dinitrotoluene	mg/kg	.36	U	UJ	.39	U	UJ	U	UJ	.39	U	UJ	UJ
2,6-Dinitrotoluene	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
2-Chloronaphthalene	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
2-Chlorophenol	mg/kg	.36	U	UJ	.39	U	UJ	U	UJ	.39	U	UJ	UJ
2-Methylnaphthalene	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
2-Methylphenol	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
2-Nitroaniline	mg/kg	1.7	U	U	1.9	U	U	U	U	1.9	U	U	U
2-Nitrophenol	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
3,3'-Dichlorobenzidine	mg/kg	1.7	U	U	1.9	U	U	U	U	1.9	U	U	U
3-Nitroaniline	mg/kg	1.7	U	U	1.9	U	U	U	U	1.9	U	U	U
4,6-Dinitro-2-methylphenol	mg/kg	1.7	U	U	1.9	U	U	U	U	1.9	U	U	U
4-Bromophenyl phenyl ether	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U
4-Chloro-3-methylphenol	mg/kg	.36	U	U	.39	U	U	U	U	.39	U	U	U



Summary of Validated Surface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 6

SEMIVOLATILES	Units	PPMP-171-GP01		PPMP-171-GP02		PPMP-171-GP03		PPMP-171-GP03			
		Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr		
Fluoranthene	mg/kg	.048	J	J	.054	J	J	J	.14	J	J
Fluorene	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
Hexachlorobenzene	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
Hexachlorobutadiene	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
Hexachlorocyclopentadiene	mg/kg	1.7	U	U	1.9	U	U	U	1.9	U	U
Hexachloroethane	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
Indeno(1,2,3-cd)pyrene	mg/kg	.36	U	U	.39	U	U	J	.39	U	U
Isophorone	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
Naphthalene	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
Nitrobenzene	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
Pentachlorophenol	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
Phenanthrene	mg/kg	.36	U	U	.39	U	U	J	.053	J	J
Phenol	mg/kg	.36	U	UJ	.39	U	UJ	U	.39	U	UJ
Pyrene	mg/kg	.044	J	J	.041	J	J	J	.11	J	J
bis(2-Chloroethoxy)methane	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
bis(2-Chloroethyl)ether	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
bis(2-Chloroisopropyl)ether	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
bis(2-Ethylhexyl)phthalate	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
n-Nitroso-di-n-propylamine	mg/kg	.36	U	U	.39	U	U	U	.39	U	U
n-Nitrosodiphenylamine	mg/kg	.36	U	U	.39	U	U	U	.39	U	U

Sample Location: PPMP-171-GP01  
 Associated Site: PPMP-171  
 Sample No: KD0001  
 Sample Date: 19-JAN-99  
 Depth: 0 - 1

Sample Location: PPMP-171-GP02  
 Associated Site: PPMP-171  
 Sample No: KD0003  
 Sample Date: 19-JAN-99  
 Depth: 0 - 1

Sample Location: PPMP-171-GP03  
 Associated Site: PPMP-171  
 Sample No: KD0005  
 Sample Date: 19-JAN-99  
 Depth: 0 - 1

Summary of Validated Surface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 7

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 Depth:

Units	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val
na	0 - 1	PPMP-171-GP01	PPMP-171	PPMP-171-GP02	PPMP-171-GP03	PPMP-171-GP03	PPMP-171	PPMP-171-GP03	PPMP-171-GP03	PPMP-171-GP03	PPMP-171-GP03
na	0 - 1	PPMP-171	PPMP-171	PPMP-171	PPMP-171	PPMP-171	PPMP-171	PPMP-171	PPMP-171	PPMP-171	PPMP-171
na	0 - 1	KD0001	KD0003	KD0003	KD0005	KD0005	KD0006	KD0006	KD0006	KD0006	KD0006
na	0 - 1	19-JAN-99	19-JAN-99	19-JAN-99	19-JAN-99	19-JAN-99	19-JAN-99	19-JAN-99	19-JAN-99	19-JAN-99	19-JAN-99
na	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
na	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result

MOISTURE  
 % Moisture

Summary of Validated Surface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 8

Sample Location: Associated Site: Sample No: Sample Date: Depth:	Units	PPMP-171-GP01		PPMP-171-GP02		PPMP-171-GP03		PPMP-171-GP03					
		Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr
METALS-S													
Aluminum	mg/kg	5920		7070		7890		8360					
Antimony	mg/kg	6.5	U	7.0	UJ	7.1	U	7.1	UJ	7.1	U	UJ	7.1
Arsenic	mg/kg	3.5		4.3		8.1		8.1		8.1		9.7	9.7
Barium	mg/kg	83.1		71.1		143		155		155		155	155
Beryllium	mg/kg	0.82		0.54	B	0.45	J	0.45	B	0.45	B	0.52	0.52
Cadmium	mg/kg	0.54	U	0.58	U	0.59	U	0.59	U	0.59	U	0.59	0.59
Calcium	mg/kg	33300		690		1740		1670		1670		1670	1670
Chromium	mg/kg	18.2		6.6	J	18.3	J	27.7	J	27.7	J	27.7	27.7
Cobalt	mg/kg	1.6	B	3.8	J	4.0	B	4.7	J	4.7	B	4.7	4.7
Copper	mg/kg	5.7		27.7		89.5		82.4		82.4		82.4	82.4
Iron	mg/kg	7260		9000		15200		25700	J	25700		25700	25700
Lead	mg/kg	20.7		77.5		92.2		64.2		64.2		64.2	64.2
Magnesium	mg/kg	8670		258	J	296	B	335	J	335	B	335	335
Manganese	mg/kg	201		1280	J	378		412	J	412		412	412
Mercury	mg/kg	0.046		0.092		1.3		0.81		0.81		0.81	0.81
Nickel	mg/kg	5.5		4.3		4.8	B	6.4	J	6.4	B	6.4	6.4
Potassium	mg/kg	606		115		193	B	186	J	186	B	186	186
Selenium	mg/kg	0.60		0.59		0.92		1.1		1.1		1.1	1.1
Silver	mg/kg	1.1	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	1.2
Sodium	mg/kg	166	B	54.0	B	86.1	B	73.2	B	73.2	B	73.2	73.2
Thallium	mg/kg	0.49	B	1.2	B	1.2	U	1.2	U	1.2	U	1.2	1.2
Vanadium	mg/kg	17.6		15.7		22.7		27.7		27.7		27.7	27.7

Summary of Validated Surface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 9

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 Depth:

PPMP-171-GP01	PPMP-171-GP02	PPMP-171-GP03	PPMP-171-GP03
PPMP-171	PPMP-171	PPMP-171	PPMP-171
KD0001	KD0003	KD0005	KD0006
19-JAN-99	19-JAN-99	19-JAN-99	19-JAN-99
0 - 1	0 - 1	0 - 1	0 - 1

Units	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	
mg/kg	16.8				27.3				86.2				86.3

METALS-S

Zinc

Summary of Validated Subsurface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 1

VOLATILES	Units	PPMP-171-GP01		PPMP-171-GP02		PPMP-171-GP03	
		Result	Lab Qlfr	Result	Lab Qlfr	Result	Lab Qlfr
1,1,1,2-Tetrachloroethane	mg/kg	.0059	U	.0059	U	.006	U
1,1,1-Trichloroethane	mg/kg	.0059	U	.0059	U	.006	U
1,1,2,2-Tetrachloroethane	mg/kg	.0059	U	.0059	U	.006	U
1,1,2-Trichloroethane	mg/kg	.0059	U	.0059	U	.006	U
1,1-Dichloroethane	mg/kg	.0059	U	.0059	U	.006	U
1,1-Dichloroethene	mg/kg	.0059	U	.0059	U	.006	U
1,1-Dichloropropene	mg/kg	.0059	U	.0059	U	.006	U
1,2,3-Trichlorobenzene	mg/kg	.0059	U	.0059	U	.006	U
1,2,3-Trichloropropane	mg/kg	.0059	U	.0059	U	.006	U
1,2,4-Trichlorobenzene	mg/kg	.0059	U	.0059	U	.006	U
1,2,4-Trimethylbenzene	mg/kg	.0059	U	.0059	U	.006	U
1,2-Dibromo-3-Chloropropane	mg/kg	.012	U	.012	U	.012	U
1,2-Dibromoethane	mg/kg	.0059	U	.0059	U	.006	U
1,2-Dichlorobenzene	mg/kg	.0059	U	.0059	U	.006	U
1,2-Dichloroethane	mg/kg	.0059	U	.0059	U	.006	U
1,2-Dichloropropane	mg/kg	.0059	U	.0059	U	.006	U
1,2-Dimethylbenzene	mg/kg	.0059	U	.0059	U	.006	U
1,3,5-Trimethylbenzene	mg/kg	.0059	U	.0059	U	.006	U
1,3-Dichlorobenzene	mg/kg	.0059	U	.0059	U	.006	U
1,3-Dichloropropane	mg/kg	.0059	U	.0059	U	.006	U
1,4-Dichlorobenzene	mg/kg	.0059	U	.0059	U	.006	U
2-Butanone	mg/kg	.024	U	.024	U	.024	U

Sample Location: PPMP-171-GP01  
 Associated Site: PPMP-171  
 Sample No: KD0002  
 Sample Date: 19-JAN-99  
 Depth: 6 - 9

Sample Location: PPMP-171-GP02  
 Associated Site: PPMP-171  
 Sample No: KD0004  
 Sample Date: 19-JAN-99  
 Depth: 6 - 9

Sample Location: PPMP-171-GP03  
 Associated Site: PPMP-171  
 Sample No: KD0008  
 Sample Date: 19-JAN-99  
 Depth: 9 - 11

Summary of Validated Subsurface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 2

Sample Location: PPMP-171-GP01  
 Associated Site: PPMP-171  
 Sample No: KD0002  
 Sample Date: 19-JAN-99  
 Depth: 6 - 9

Units	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr
mg/kg	.024	U	U	U	.024	U	U	U	.024	U	U	U
mg/kg	.024	U	U	U	.024	U	U	U	.024	U	U	U
mg/kg	.0071	JB	B	J	.075	B	J	J	.019	JB	B	B
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0021	JB	B	B	.0023	JB	B	B	.0024	JB	B	B
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.012	U	UJ	UJ	.012	U	UJ	UJ	.012	U	UJ	UJ
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.012	U	U	U	.012	U	U	U	.012	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.012	U	UJ	UJ	.012	U	UJ	UJ	.012	U	UJ	UJ
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0027	JB	B	B	.0031	JB	B	B	.0032	JB	B	B

VOLATILES  
 2-Hexanone  
 4-Methyl-2-pentanone  
 Acetone  
 Benzene  
 Bromobenzene  
 Bromochloromethane  
 Bromodichloromethane  
 Bromoform  
 Bromomethane  
 Carbon disulfide  
 Carbon tetrachloride  
 Chlorobenzene  
 Chloroethane  
 Chloroform  
 Chloromethane  
 Cumene  
 Dibromochloromethane  
 Dibromomethane  
 Dichlorodifluoromethane  
 Ethylbenzene  
 Hexachlorobutadiene  
 Methylene chloride

Summary of Validated Subsurface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 3

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 Depth:

PPMP-171-GP01  
 PPMP-171  
 KD0002  
 19-JAN-99  
 6 - 9

PPMP-171-GP02  
 PPMP-171  
 KD0004  
 19-JAN-99  
 6 - 9

PPMP-171-GP03  
 PPMP-171  
 KD0008  
 19-JAN-99  
 9 - 11

Units	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr
mg/kg	.0059	U	U	UJ	.0059	U	U	UJ	.006	U	U	UJ
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.012	U	U	U	.012	U	U	U	.012	U	U	U
mg/kg	.012	U	U	U	.012	U	U	U	.012	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U
mg/kg	.0059	U	U	U	.0059	U	U	U	.006	U	U	U

VOLATILES

Naphthalene  
 Styrene  
 Tetrachloroethene  
 Toluene  
 Trichloroethene  
 Trichlorofluoromethane  
 Vinyl chloride  
 cis-1,2-Dichloroethene  
 cis-1,3-Dichloropropene  
 m,p-Xylenes  
 n-Butylbenzene  
 n-Propylbenzene  
 o-Chlorotoluene  
 p-Chlorotoluene  
 p-Cymene  
 sec-Butylbenzene  
 sec-Dichloropropane  
 tert-Butylbenzene  
 trans-1,2-Dichloroethene  
 trans-1,3-Dichloropropene

Summary of Validated Subsurface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Sample Location: PPMP-171-GP01  
 Associated Site: PPMP-171  
 Sample No: KD0002  
 Sample Date: 19-JAN-99  
 Depth: 6 - 9

SEMI-VOLATILES	Units	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr
1,2,4-Trichlorobenzene	mg/kg	.39	U	UJ	.39	U	U	U	U	.39	U	U	U
1,2-Dichlorobenzene	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
1,3-Dichlorobenzene	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
1,4-Dichlorobenzene	mg/kg	.39	U	UJ	.39	U	U	U	U	.39	U	U	U
2,4,5-Trichlorophenol	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
2,4,6-Trichlorophenol	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
2,4-Dichlorophenol	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
2,4-Dimethylphenol	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
2,4-Dinitrophenol	mg/kg	1.9	U	U	1.9	U	U	U	U	1.9	U	UJ	UJ
2,4-Dinitrotoluene	mg/kg	.39	U	U	.39	U	U	UJ	U	.39	U	U	UJ
2,6-Dinitrotoluene	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
2-Chloronaphthalene	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
2-Chlorophenol	mg/kg	.39	U	UJ	.39	U	U	UJ	U	.39	U	U	UJ
2-Methylnaphthalene	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
2-Methylphenol	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
2-Nitroaniline	mg/kg	1.9	U	U	1.9	U	U	U	U	1.9	U	U	U
2-Nitrophenol	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
3,3'-Dichlorobenzidine	mg/kg	1.9	U	U	1.9	U	U	U	U	1.9	U	U	U
3-Nitroaniline	mg/kg	1.9	U	U	1.9	U	U	U	U	1.9	U	U	U
4,6-Dinitro-2-methylphenol	mg/kg	1.9	U	U	1.9	U	U	U	U	1.9	U	U	U
4-Bromophenyl phenyl ether	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U
4-Chloro-3-methylphenol	mg/kg	.39	U	U	.39	U	U	U	U	.39	U	U	U

Summary of Validated Subsurface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 5

Sample Location: PPMP-171-GP01  
 Associated Site: PPMP-171  
 Sample No: KD0002  
 Sample Date: 19-JAN-99  
 Depth: 6 - 9

SEMIVOLATILES	Units	PPMP-171-GP01		PPMP-171-GP02		PPMP-171-GP03	
		Result	Lab Qlfr	Result	Lab Qlfr	Result	Lab Qlfr
4-Chloroaniline	mg/kg	.39	U	.39	U	.39	U
4-Chlorophenyl phenyl ether	mg/kg	.39	U	.39	U	.39	U
4-Methylphenol	mg/kg	.39	U	.39	U	.39	U
4-Nitroaniline	mg/kg	1.9	U	1.9	U	1.9	U
4-Nitrophenol	mg/kg	1.9	U	1.9	U	1.9	U
Acenaphthene	mg/kg	.39	U	.39	U	.39	U
Acenaphthylene	mg/kg	.39	U	.39	U	.39	U
Anthracene	mg/kg	.39	U	.39	U	.39	U
Benzo(a)anthracene	mg/kg	.39	U	.39	U	.39	U
Benzo(a)pyrene	mg/kg	.39	U	.39	U	.39	U
Benzo(b)fluoranthene	mg/kg	.39	U	.39	U	.39	U
Benzo(ghi)perylene	mg/kg	.39	U	.39	U	.39	U
Benzo(k)fluoranthene	mg/kg	.39	U	.39	U	.39	U
Butyl benzyl phthalate	mg/kg	.39	U	.39	U	.39	U
Carbazole	mg/kg	.39	U	.39	U	.39	U
Chrysene	mg/kg	.39	U	.39	U	.39	U
Di-n-butyl phthalate	mg/kg	.39	U	.39	U	.39	U
Di-n-octyl phthalate	mg/kg	.39	U	.39	U	.39	U
Dibenz(a,h)anthracene	mg/kg	.39	U	.39	U	.39	U
Dibenzofuran	mg/kg	.39	U	.39	U	.39	U
Diethyl phthalate	mg/kg	.39	U	.39	U	.39	U
Dimethyl phthalate	mg/kg	.39	U	.39	U	.39	U

Summary of Validated Subsurface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 6

Sample Location: PPMP-171-GP01  
 Associated Site: PPMP-171  
 Sample No: KD0002  
 Sample Date: 19-JAN-99  
 Depth: 6 - 9

SEMIVOLATILES	Units	PPMP-171-GP01		PPMP-171-GP02		PPMP-171-GP03				
		Result	Lab Qlfr	Val Qlfr	Result	Lab Qlfr	Val Qlfr	Result	Lab Qlfr	Val Qlfr
Fluoranthene	mg/kg	.046	J	J	.047	J	.39	U	U	U
Fluorene	mg/kg	.39	U	U	.39	U	.39	U	U	U
Hexachlorobenzene	mg/kg	.39	U	U	.39	U	.39	U	U	U
Hexachlorobutadiene	mg/kg	.39	U	U	.39	U	.39	U	U	U
Hexachlorocyclopentadiene	mg/kg	1.9	U	U	1.9	U	1.9	U	UJ	UJ
Hexachloroethane	mg/kg	.39	U	U	.39	U	.39	U	U	U
Indeno(1,2,3-cd)pyrene	mg/kg	.39	U	U	.39	U	.39	U	U	U
Isophorone	mg/kg	.39	U	U	.39	U	.39	U	U	U
Naphthalene	mg/kg	.39	U	U	.39	U	.39	U	U	U
Nitrobenzene	mg/kg	.39	U	U	.39	U	.39	U	U	U
Pentachlorophenol	mg/kg	.39	U	U	.39	U	.39	U	U	U
Phenanthrene	mg/kg	.39	U	UJ	.39	UJ	.39	U	UJ	UJ
Phenol	mg/kg	.39	U	UJ	.39	UJ	.39	U	U	U
Pyrene	mg/kg	.39	U	U	.39	U	.39	U	U	U
bis(2-Chloroethoxy)methane	mg/kg	.39	U	U	.39	U	.39	U	U	U
bis(2-Chloroethyl)ether	mg/kg	.39	U	U	.39	U	.39	U	U	U
bis(2-Chloroisopropyl)ether	mg/kg	.39	U	U	.39	U	.39	U	U	U
bis(2-Ethylhexyl)phthalate	mg/kg	.061	J	J	.39	U	.39	U	U	U
n-Nitroso-di-n-propylamine	mg/kg	.39	U	UJ	.39	U	.39	U	U	U
n-Nitrosodiphenylamine	mg/kg	.39	U	U	.39	U	.39	U	U	U

Summary of Validated Subsurface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 7

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 Depth:

PPMP-171-GP01  
 PPMP-171  
 KD0002  
 19-JAN-99  
 6 - 9

PPMP-171-GP02  
 PPMP-171  
 KD0004  
 19-JAN-99  
 6 - 9

PPMP-171-GP03  
 PPMP-171  
 KD0008  
 19-JAN-99  
 9 - 11

Units	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr
	na											
	na											
	na											

MOISTURE  
 % Moisture

Summary of Validated subsurface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 8

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 Depth:

PPMP-171-GP01  
 PPMP-171  
 KD0002  
 19-JAN-99  
 6 - 9

PPMP-171-GP02  
 PPMP-171  
 KD0004  
 19-JAN-99  
 6 - 9

PPMP-171-GP03  
 PPMP-171  
 KD0008  
 19-JAN-99  
 9 - 11

Units	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr	Result	Lab Qlfr	Val	Qlfr
mg/kg	13100				10200				11100			
mg/kg	7.1	U		UJ	7.1	U		UJ	7.2	U		UJ
mg/kg	5.0				7.6				8.0			
mg/kg	52.2				27.0				18.6	B		J
mg/kg	0.72				0.83				0.94			
mg/kg	0.59	U		U	0.59	U		U	0.60	U		U
mg/kg	24800				402				89.9	B		J
mg/kg	20.6			J	21.9			J	21.5			J
mg/kg	1.2	B		J	2.0	B		J	1.3	B		J
mg/kg	29.0				37.1				35.7			
mg/kg	32500				41800				42200			
mg/kg	23.3				23.1				20.9			
mg/kg	564	B		J	170	B		J	70.5	B		J
mg/kg	70.0			J	109			J	9.0			J
mg/kg	0.021	B		J	0.014	B		J	0.017	B		J
mg/kg	3.5	B		J	11.9	B		J	5.3			
mg/kg	645				358			B	430	B		J
mg/kg	1.6				1.7				2.1			
mg/kg	1.2	U		U	1.2	U		U	1.2	U		U
mg/kg	234	B		J	99.0	B		B	74.5	B		B
mg/kg	0.58	B		B	1.2	B		U	1.2	U		U
mg/kg	29.2				34.7				32.8			

METALS-S

Aluminum  
 Antimony  
 Arsenic  
 Barium  
 Beryllium  
 Cadmium  
 Calcium  
 Chromium  
 Cobalt  
 Copper  
 Iron  
 Lead  
 Magnesium  
 Manganese  
 Mercury  
 Nickel  
 Potassium  
 Selenium  
 Silver  
 Sodium  
 Thallium  
 Vanadium

Summary of Validated Subsurface Soil Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page: 9

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 Depth:

PPMP-171-GP01  
 PPMP-171  
 KD0002  
 19-JAN-99  
 6 - 9

PPMP-171-GP02  
 PPMP-171  
 KD0004  
 19-JAN-99  
 6 - 9

PPMP-171-GP03  
 PPMP-171  
 KD0008  
 19-JAN-99  
 9 - 11

Units	Result	Lab Qlfr	Val Qlfr	Result	Lab Qlfr	Val Qlfr	Result	Lab Qlfr	Val Qlfr
mg/kg	31.6			38.5			30.5		

METALS-S  
 Zinc

Summary of Validated Groundwater Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Sample Location:	PPMP-171-GP01	PPMP-171-GP02	PPMP-171-GP03	PPMP-171-GP03		
Associated Site:	PPMP-171	PPMP-171	PPMP-171	PPMP-171		
Sample No:	KD3001	KD3002	KD3003	KD3004		
Sample Date:	18-FEB-99	17-FEB-99	18-FEB-99	18-FEB-99		
VOLATILES	Result	Val Qlfr	Result	Val Qlfr	Result	Val Qlfr
1,1,1,2-Tetrachloroethane	.001	U	.001	U	.001	U
1,1,1-Trichloroethane	.001	U	.001	U	.001	U
1,1,2,2-Tetrachloroethane	.001	U	.001	U	.001	U
1,1,2-Trichloroethane	.001	U	.001	U	.001	U
1,1-Dichloroethane	.001	U	.001	U	.001	U
1,1-Dichloroethene	.001	U	.001	U	.001	U
1,1-Dichloropropene	.001	UJ	.001	UJ	.001	UJ
1,2,3-Trichlorobenzene	.001	U	.001	U	.001	U
1,2,3-Trichloropropane	.001	UJ	.001	UJ	.001	UJ
1,2,4-Trichlorobenzene	.001	U	.001	U	.001	U
1,2,4-Trimethylbenzene	.002	R	.002	R	.002	R
1,2-Dibromo-3-Chloropropane	.001	U	.001	U	.001	U
1,2-Dibromoethane	.001	U	.001	U	.001	U
1,2-Dichlorobenzene	.001	U	.001	U	.001	U
1,2-Dichloroethane	.001	U	.001	U	.001	U
1,2-Dichloropropane	.001	U	.001	U	.001	U
1,2-Dimethylbenzene	.001	U	.001	U	.001	U
1,3,5-Trimethylbenzene	.001	U	.001	U	.001	U
1,3-Dichlorobenzene	.001	U	.001	U	.001	U
1,3-Dichloropropane	.001	U	.001	U	.001	U
1,4-Dichlorobenzene	.001	U	.001	U	.001	U
2-Butanone	.005	R	.005	R	.005	R
2-Hexanone	.005	UJ	.005	UJ	.005	UJ
4-Methyl-2-pentanone	.005	U	.005	U	.005	U
Acetone	.01	R	.01	R	.01	R
Benzene	.001	U	.001	U	.001	U
Bromobenzene	.001	U	.001	U	.001	U
Bromochloromethane	.001	U	.001	U	.001	U
Bromodichloromethane	.001	U	.001	U	.001	U

Summary of Validated Groundwater Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page 2

Sample Location: Associated Site: Sample No: Sample Date: VOLATILES	Units	PPMP-171-GP01 PPMP-171 KD3001 18-FEB-99 Result	Val Qlfr	PPMP-171-GP02 PPMP-171 KD3002 17-FEB-99 Result	Val Qlfr	PPMP-171-GP03 PPMP-171 KD3003 18-FEB-99 Result	Val Qlfr	PPMP-171-GP03 PPMP-171 KD3004 18-FEB-99 Result	Val Qlfr
Bromoform	mg/L	.001	U	.001	UJ	.001	U	.001	U
Bromomethane	mg/L	.002	U	.002	U	.002	U	.002	U
Carbon disulfide	mg/L	.001	U	.001	UJ	.001	U	.001	U
Carbon tetrachloride	mg/L	.001	U	.001	U	.001	U	.001	U
Chlorobenzene	mg/L	.0008	J	.001	U	.001	U	.001	U
Chloroethane	mg/L	.002	U	.002	U	.002	U	.002	U
Chloroform	mg/L	.001	U	.001	U	.001	U	.001	U
Chloromethane	mg/L	.002	U	.002	U	.002	U	.002	U
Cumene	mg/L	.001	U	.001	U	.001	U	.001	U
Dibromochloromethane	mg/L	.001	U	.001	U	.001	U	.001	U
Dibromomethane	mg/L	.001	R	.001	U	.001	R	.001	R
Dichlorodifluoromethane	mg/L	.002	U	.002	U	.002	U	.002	U
Ethylbenzene	mg/L	.001	U	.001	U	.001	U	.001	U
Hexachlorobutadiene	mg/L	.001	U	.001	U	.001	U	.001	U
Methylene chloride	mg/L	.001	UJ	.001	UJ	.001	UJ	.001	UJ
Naphthalene	mg/L	.001	UJ	.001	U	.001	UJ	.001	UJ
Styrene	mg/L	.001	U	.001	U	.001	U	.001	U
Tetrachloroethene	mg/L	.001	U	.001	U	.001	U	.001	U
Toluene	mg/L	.001	U	.001	U	.001	U	.001	U
Trichloroethene	mg/L	.001	U	.001	U	.001	U	.001	U
Trichlorofluoromethane	mg/L	.002	U	.002	U	.002	U	.002	U
Vinyl chloride	mg/L	.002	U	.002	U	.002	U	.002	U
cis-1,2-Dichloroethene	mg/L	.001	U	.001	U	.001	U	.001	U
cis-1,3-Dichloropropene	mg/L	.001	U	.001	U	.001	U	.001	U
m,p-Xylenes	mg/L	.001	U	.001	U	.001	U	.001	U
n-Butylbenzene	mg/L	.001	U	.001	U	.001	U	.001	U
n-Propylbenzene	mg/L	.001	U	.001	U	.001	U	.001	U
o-Chlorotoluene	mg/L	.001	U	.001	U	.001	U	.001	U
p-Chlorotoluene	mg/L	.001	U	.001	U	.001	U	.001	U

Summary of Validated Groundwater Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 VOLATILES

Units	PPMP-171-GP01 PPMP-171 KD3001 18-FEB-99 Result	Val Qlfr	PPMP-171-GP02 PPMP-171 KD3002 17-FEB-99 Result	Val Qlfr	PPMP-171-GP03 PPMP-171 KD3003 18-FEB-99 Result	Val Qlfr	PPMP-171-GP03 PPMP-171 KD3004 18-FEB-99 Result	Val Qlfr
mg/L	.001	U	.001	U	.001	U	.001	U
mg/L	.001	U	.001	U	.001	U	.001	U
mg/L	.001	U	.001	U	.001	U	.001	U
mg/L	.001	U	.001	U	.001	U	.001	U
mg/L	.001	U	.001	U	.001	U	.001	U
mg/L	.001	U	.001	UJ	.001	U	.001	U

p-Cymene  
 sec-Butylbenzene  
 sec-Dichloropropane  
 tert-Butylbenzene  
 trans-1,2-Dichloroethene  
 trans-1,3-Dichloropropene

Summary of Validated Groundwater Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

SEMIVOLATILES	Units	PPMP-171-GP01 PPMP-171 KD3001 18-FEB-99 Result	Val Qlfr	PPMP-171-GP02 PPMP-171 KD3002 17-FEB-99 Result	Val Qlfr	PPMP-171-GP03 PPMP-171 KD3003 18-FEB-99 Result	Val Qlfr	PPMP-171-GP03 PPMP-171 KD3004 18-FEB-99 Result	Val Qlfr
1,2,4-Trichlorobenzene	mg/L	.01	U	.01	U	.01	U	.01	U
1,2-Dichlorobenzene	mg/L	.01	U	.01	U	.01	U	.01	U
1,3-Dichlorobenzene	mg/L	.01	U	.01	U	.01	U	.01	U
1,4-Dichlorobenzene	mg/L	.01	U	.01	U	.01	U	.01	U
2,4,5-Trichlorophenol	mg/L	.01	U	.01	U	.01	U	.01	U
2,4,6-Trichlorophenol	mg/L	.01	U	.01	U	.01	U	.01	U
2,4-Dichlorophenol	mg/L	.01	U	.01	U	.01	U	.01	U
2,4-Dimethylphenol	mg/L	.01	U	.01	U	.01	U	.01	U
2,4-Dinitrophenol	mg/L	.05	U	.05	U	.05	U	.05	U
2,4-Dinitrotoluene	mg/L	.01	U	.01	U	.01	U	.01	U
2,6-Dinitrotoluene	mg/L	.01	U	.01	U	.01	U	.01	U
2-Chloronaphthalene	mg/L	.01	U	.01	U	.01	U	.01	U
2-Chlorophenol	mg/L	.01	U	.01	U	.01	U	.01	U
2-Methylnaphthalene	mg/L	.01	U	.01	U	.01	U	.01	U
2-Methylphenol	mg/L	.01	U	.01	U	.01	U	.01	U
2-Nitroaniline	mg/L	.05	U	.05	U	.05	U	.05	U
2-Nitrophenol	mg/L	.01	U	.01	U	.01	U	.01	U
3,3'-Dichlorobenzidine	mg/L	.05	U	.05	U	.05	U	.05	U
3-Nitroaniline	mg/L	.05	U	.05	U	.05	U	.05	U
4,6-Dinitro-2-methylphenol	mg/L	.05	U	.05	U	.05	U	.05	U
4-Bromophenyl phenyl ether	mg/L	.01	U	.01	U	.01	U	.01	U
4-Chloro-3-methylphenol	mg/L	.01	U	.01	U	.01	U	.01	U
4-Chloroaniline	mg/L	.01	U	.01	U	.01	U	.01	U
4-Chlorophenyl phenyl ether	mg/L	.01	U	.01	U	.01	U	.01	U
4-Methylphenol	mg/L	.01	U	.01	U	.01	U	.01	U
4-Nitroaniline	mg/L	.05	U	.05	U	.05	U	.05	U
4-Nitrophenol	mg/L	.05	U	.05	U	.05	U	.05	U
Acenaphthene	mg/L	.01	UJ	.01	UJ	.01	UJ	.01	UJ
Acenaphthylene	mg/L	.01	U	.01	U	.01	U	.01	U

Summary of Validated Groundwater Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Sample Location:	PPMP-171-GP01	PPMP-171-GP02	PPMP-171-GP03	PPMP-171-GP03		
Associated Site:	PPMP-171	PPMP-171	PPMP-171	PPMP-171		
Sample No.:	KD3001	KD3002	KD3003	KD3004		
Sample Date:	18-FEB-99	17-FEB-99	18-FEB-99	18-FEB-99		
SEMIVOLATILES	Result	Val Qlfr	Result	Val Qlfr	Result	Val Qlfr
Anthracene	.01	U	.01	U	.01	U
Benzo(a)anthracene	.01	U	.01	U	.01	U
Benzo(a)pyrene	.01	U	.01	U	.01	U
Benzo(b)fluoranthene	.01	U	.01	U	.01	U
Benzo(ghi)perylene	.01	U	.01	U	.01	U
Benzo(k)fluoranthene	.01	U	.01	U	.01	U
Butyl benzyl phthalate	.01	U	.01	U	.01	U
Carbazole	.01	U	.01	U	.01	U
Chrysene	.01	U	.01	U	.01	U
Di-n-butyl phthalate	.01	U	.01	U	.01	U
Di-n-octyl phthalate	.01	U	.01	U	.01	U
Dibenz(a,h)anthracene	.01	U	.01	U	.01	U
Dibenzofuran	.01	U	.01	U	.01	U
Diethyl phthalate	.01	U	.01	U	.01	U
Dimethyl phthalate	.01	U	.01	U	.01	U
Fluoranthene	.01	U	.01	U	.01	U
Fluorene	.01	U	.01	U	.01	U
Hexachlorobenzene	.01	U	.01	U	.01	U
Hexachlorobutadiene	.01	U	.01	U	.01	U
Hexachlorocyclopentadiene	.05	U	.05	U	.05	U
Hexachloroethane	.01	U	.01	U	.01	U
Indeno(1,2,3-cd)pyrene	.01	U	.01	U	.01	U
Isophorone	.01	U	.01	U	.01	U
Naphthalene	.01	U	.01	U	.01	U
Nitrobenzene	.01	U	.01	U	.01	U
Pentachlorophenol	.05	U	.05	U	.05	U
Phenanthrene	.01	U	.01	U	.01	U
Phenol	.01	U	.01	U	.01	U
Pyrene	.01	UJ	.01	UJ	.01	UJ

Summary of Validated Groundwater Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Page 6

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:

SEMIVOLATILES	Units	PPMP-171-GP01 PPMP-171 KD3001 18-FEB-99	Val Qlfr	Result	PPMP-171-GP02 PPMP-171 KD3002 17-FEB-99	Val Qlfr	Result	PPMP-171-GP03 PPMP-171 KD3003 18-FEB-99	Val Qlfr	Result	PPMP-171-GP03 PPMP-171 KD3004 18-FEB-99	Val Qlfr	Result
bis(2-Chloroethoxy)methane	mg/L	.01	U	.01									
bis(2-Chloroethyl)ether	mg/L	.01	U	.01									
bis(2-Chloroisopropyl)ether	mg/L	.01	U	.01									
bis(2-Ethylhexyl)phthalate	mg/L	.01	U	.01									
n-Nitroso-di-n-propylamine	mg/L	.01	UJ	.01									
n-Nitrosodiphenylamine	mg/L	.01	U	.01									

Summary of Validated Groundwater Data  
 Former Printing Plant, Building 144 (Parcel 171)  
 Fort McClellan, Alabama

Report Date: 02/09/00

Sample Location:  
 Associated Site:  
 Sample No:  
 Sample Date:  
 METALS-W

	PPMP-171-GP01	PPMP-171-GP02	PPMP-171-GP03	PPMP-171-GP03	PPMP-171-GP03
	PPMP-171	PPMP-171	PPMP-171	PPMP-171	PPMP-171
	KD3001	KD3002	KD3003	KD3004	KD3004
	18-FEB-99	17-FEB-99	18-FEB-99	18-FEB-99	18-FEB-99
Units	Result	Result	Result	Result	Result
	Val Qlfr				
Aluminum	1.63	2.01	.632	.0594	B
Antimony	.06	.06	.06	.06	U
Arsenic	.01	.01	.01	.01	U
Barium	.0651	.0643	.0461	.0482	J
Beryllium	.005	.005	.005	.005	U
Cadmium	.005	.005	.005	.005	U
Calcium	1.93	2.93	1.54	1.56	J
Chromium	.01	.01	.01	.01	U
Cobalt	.0107	.0067	.0073	.0076	J
Copper	.025	.025	.025	.025	U
Iron	1.72	2.48	.384	.398	J
Lead	.003	.003	.003	.003	U
Magnesium	3.49	4.23	3.96	4.12	J
Manganese	.0916	.149	.0593	.0616	U
Mercury	.0002	.0002	.0002	.0002	U
Nickel	.0202	.0198	.02	.021	J
Potassium	.824	.884	5	5	U
Selenium	.005	.005	.005	.005	U
Silver	.01	.01	.01	.01	U
Sodium	7.01	9.15	5.07	5.23	U
Thallium	.01	.01	.01	.01	U
Vanadium	.05	.05	.05	.05	U
Zinc	.0484	.0256	.0276	.0282	U

**APPENDIX F**  
**DATA VALIDATION SUMMARY REPORT**

# Appendix F

## **Data Validation Summary Report for the Site Investigation Performed at the Former Printing Plant Building 144 (Parcel PPMP-171) Fort McClellan, Calhoun County, Alabama**

### **1.0 Introduction**

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Level III data validation was performed on 100% of the environmental samples collected at Parcel PPMP-171. The analytical data consisted of two sample delivery groups (SDGs), PK121711 and PK121712 which were analyzed by Quanterra Incorporated. Both soil and water matrices were validated. In addition, an evaluation of the field split data, which was analyzed by the USACE-SAD laboratory is included in this report. The chemical parameters for which the samples were analyzed, are identified below:

Parameter (Method)
TCL Volatile Organics by GC/MS SW-846 8260B
TCL Semivolatiles by GC SW-846 8270C
Metals by SW-846 6010B and 7471A/7470A

### **2.0 Procedures**

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The sample data were validated following the logic identified in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines For Inorganic Data Review (February 1994)* and *USEPA Contract Laboratory Program National Functional Guidelines For Organic Review (February 1994)* 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 s) were applied to all sample results. As the result of the use of Update III SW846 test methods for the analytical data and the application of the 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 Chromatograph (GC) and Gas Chromatograph/Mass Spectra (GC/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 SW846 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 data 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. SW846, CFR, SOPs, QAP) and technical judgement following the logic of the CLP validation guidelines.

### **3.0 Summary of Data Validation Findings**

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The overall quality of the data was determined to be acceptable. The only rejected data (“R” qualified) was due to “poor performing” volatile compounds (ketones, some halogenated hydrocarbons, e.g.), which exhibited poor calibration responses in the associated calibration data and samples that were reanalyzed and have more than one result reported.

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-171 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 paragraphs highlight the key findings of the data validation for each analysis.

## **4.0 Analysis-Specific Data Validation Summaries**

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### **4.1 Volatile Organics by GC/MS SW846-8260B**

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, with the exceptions of the following:

- The following demonstrated RRFs below 0.1 in the ICAL and/or CCAL: Non-detect results were rejected (qualified "R"); Positive results were estimated (qualified "J"); Unless "B" qualified due to blank contamination

SDG	Samples Affected	Analyte/Analytes	Validation Qualifier
PK121711	KD0001, KD0002, KD0003, KD0004, KD0005, KD0006, KD0008	Acetone, 2-Butanone, 1,2-Dibromo-3-chloropropane	*B/**R/J
PK121712	KD3001, KD3002, KD3003, KD3004	Acetone, 2-Butanone, 1,2-Dibromo-3-chloropropane,	**R
PK121712	KD3001, KD3003, KD3004	Dibromomethane	**R

\* 'B' qualifiers assigned to designate blank contamination, which are identification qualifiers, take precedence over estimating qualifiers, assigned due to quantitation.

\*\* 'R' qualifiers take precedence over estimating qualifiers.

- The following exhibited individual ICAL %RSD>30 and/or CCAL %D>20: Non-detect results were estimated (qualified "UJ"); unless rejected (qualified "R") due to ICAL/CCAL minimum RRF criteria not met. Positive results were estimated (qualified "J"). Unless "B" qualified due to blank contamination.

SDG	Samples Affected	Analyte/Analytes	Validation Qualifier
PK121711	KD0001, KD0002, KD0003, KD0004, KD0005, KD0006, KD0008	Acetone, Bromomethane, Napthalene, Chloroethane, Dichlorodifluoromethane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene	*B/UJ/J
PK121712	KD3001, KD3003, KD3004	1,2-Dibromo-3-chloropropane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, Methylene Chloride, Napthalene, 2-Hexanone	**R/UJ
PK121712	KD3002	1,2-Dibromo-3-chloropropane, Bromoform, Methylene Chloride, Carbon Disulfide, trans-1,3-Dichloropropene	**R/UJ

\* 'B' qualifiers assigned to designate blank contamination, which are identification qualifiers, take precedence over estimating qualifiers, assigned due to quantitation.

\*\* 'R' qualifiers take precedence over estimating qualifiers.

**Blanks.** The 5X/10X rule for contaminants found in the associated equipment rinses, trip blanks, 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	Samples Affected	Analyte/Analytes	Associated Blank Contamination
PK121711	KD0001, KD0002, KD0003, KD0005, KD0006, KD0008	Acetone, Bromomethane, Methylene Chloride	Method/ER
PK121711	KD0004	Bromomethane, Methylene Chloride	Method/ER

"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 are within acceptable QC ranges for the surrogates applied with the exception of the following:

SDG	Samples Affected	Analyte/Analytes	Validation Qualifier
PK121711	KD0001	Acetone, Bromomethane, Methylene Chloride	*B

\* "B" qualifiers assigned to designate blank contamination, which are identification qualifiers take precedence over estimating qualifiers, assigned due to quantitation.

**Matrix Spike / Matrix Spike Duplicate.** MS/MSD and Laboratory Control Sample (LCS) were evaluated and no problems were noted and all QC criteria were met.

**Field Duplicates.** Original and field duplicate results were evaluated and no problems were noted.

**Internal Standards.** All internal standards met criteria with the exception of the following:

- All compounds associated with the internal standards listed in the table below were qualified as indicated.

SDG	Samples Affected	Internal Standard Outside QC Limits	Validation Qualifier
PK121711	KD0001, KD0003, KD0005, KD0006	1,4-Dichlorobenzene-d4	**R/UJ
PK121711	KD0001	Chlorobenzene-d5	UJ

\*\* "R" qualifiers take precedence over estimating qualifiers.

**Quantitation.** Results quantitated 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.

#### 4.2 TCL 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.

**Initial and Continuing Calibration.** All initial and continuing calibrations associated with the project samples met QC criteria with the exceptions of the following:

The following exhibited individual ICAL %RSD>30 and/or CCAL %D>20:

SDG	Samples Affected	Analyte/Analytes	Validation Qualifier
PK121711	KD0008	2,4-Dinitrophenol , 4-Nitrophenol, Hexachlorocyclopentadiene	UJ

**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	Samples Affected	Analyte/Analytes	Associated Blank Contamination
-----	------------------	------------------	--------------------------------

SDG	Samples Affected	Analyte/Analytes	Associated Blank Contamination
PK121711	KD0006	Benz(a)anthracene, Chrysene	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.** Batch QC was performed for the project samples and all QC criteria were met, with the following exceptions:

SDG	Samples Affected	Analyte/Analytes	Validation Qualifier
PK121711	KD0001, KD0003, KD0004, KD0005, KD0006, KD0008	2,4-Dinitrotoluene, 2-Chlorophenol, Phenol	UJ
PK121711	KD0002	2-Chlorophenol, Phenol, Pyrene 1,2,4-Trichlorobenzene, 1,4-Dichlorobenzene, Acenaphthene, n-Nitrosodi-n-propylamine	UJ
PK121712	KD3001, KD3002, KD3003, KD3004	Acenaphthene, Pyrene	UJ

**Laboratory Control Sample (LCS).** All QC criteria were met for the LCS associated with the project sample analyses, with the following exceptions:

SDG	Samples Affected	Analyte/Analytes	Validation Qualifier
PK121712	KD3001, KD3002, KD3003, KD3004	n-Nitrosodi-n-propylamine	UJ

**Field Duplicates.** Original and field duplicate results were evaluated and the following exceeded the RPD criteria applied:

Note: Soil-50% criteria applied. Water-35% criteria applied.

SDG	Samples Affected	Element/Elements	Validation Qualifier
PK121711	KD0005 (original), KD0006 (field Duplicate)	Benz(a)anthracene, Benzo(a)pyrene Chrysene, Pyrene, Fluoranthene Phenanthrene, Benzo(b)fluoranthene	*B/J

\* 'B' qualifiers assigned to designate blank contamination, which are identification qualifiers take precedence over estimating qualifiers, assigned due to quantitation.

Note: High RPDs are most likely due to matrix interferences and sample non-homogeneity

**Internal Standards.** All internal standards met criteria.

**Quantitation.** Results quantitated 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.

#### 4.3 Metals by SW-846 6010B/7471A/7470A

Overall, the data are of good quality and are usable as reported by the laboratory with the exceptions noted below.

**Holding Times.** Technical holding time criteria were met for all samples.

**Initial and Continuing Calibrations.** All initial and continuing calibrations associated with the project samples met QC criteria.

**Blanks.** The 5X rule for contaminants found in the associated equipment rinse, calibration, and method blanks was applied to all sample results. All were acceptable with the exceptions noted below:

Note: "B" Qualifiers were applied to all of the following sample results.

SDG	Samples Affected	Element/Elements	Associated Blank Contamination
PK121711	KD0001,	Sodium, Thallium	Method/ICB/CCB/ER
PK121711	KD0002	Thallium	ER

PK121711	KD0003, KD0004, KD0005, KD0006, KD0008	Sodium	Method/ICB/CCB/ER
PK121712	KD3003, KD3004	Aluminum	ICB/CCB/ER

"B" qualifiers assigned to designate blank contamination, which are identification qualifiers take precedence over estimating qualifiers, assigned due to quantitation.

**Matrix Spike/Matrix Spike Duplicate.** Batch QC was performed for the project samples and all QC criteria were met with the following exceptions:

SDG	Samples Affected	Element/Elements	Validation Qualifier
PK121711	KD0001, KD0002, KD0003, KD0004, KD0005, KD0006, KD0008	Antimony, Chromium, Manganese, Magnesium	UJ/J
PK121712	KD3001, KD3002, KD3003, KD3004	Aluminum, Iron	*B/J

\*"B" qualifiers assigned to designate blank contamination, which are identification qualifiers take precedence over estimating qualifiers, assigned due to quantitation.

**Laboratory Control Sample (LCS).** All QC criteria were met for the LCS associated with the project sample analyses.

**Interference Check Sample (ICS).** All ICS % recoveries, where applicable, were met for the project sample analyses.

**ICP Serial Dilutions.** All QC criteria were met.

**Field Duplicates.** Original and field duplicate results were evaluated and the following exceeded the RPD criteria applied:

Note: Soil-50% criteria applied. Water-35% criteria applied.

SDG	Samples Affected	Element/Elements	Validation Qualifier
PK121711	KD0005 (original), KD0006 (field Duplicate)	Iron	J

Note: High RPD's are most likely due to matrix interferences and sample non-homogeneity

**Sample Quantitation.** Results quantitated between the IDL and the RL ("B" flagged by the

laboratory) were qualified as estimated (J).

### **5.0 Quality Assurance Field Split Sample Data Evaluation**

Data from the quality assurance split samples supplied to IT by the USACE were reviewed for comparability to the original and field duplicate results. Relative percent differences were calculated and the results are summarized in this section.

- Field split data for SDG PK121711

Note: Field Split Laboratory - Specialized Assays, Inc., Nashville, TN

Original Sample ID	Field Duplicate ID	Field Split ID
KD0005	KD0006	KD0007

Comments:

- Volatiles - No volatiles were detected in the FS. Acetone, bromomethane, and methylene chloride were detected below the reporting limit in the original sample and the FD. Acetone and methylene chloride are both common laboratory contaminants. Difference attributed to lack of sample homogeneity, different reporting limits (RL), and/or FS lab does not report results below the RLs.
- Semivolatiles - No semivolatiles were detected in the FS. All compounds in the FD and all except fluoranthene and pyrene in the original sample were detected below the reporting limit. Difference attributed to lack of sample homogeneity, different reporting limits (RL), and/or FS lab does not report results below the RLs.
- Metals - The majority of the same elements were detected at comparable concentrations for all samples. Lead, Magnesium, potassium, sodium, and mercury have high RPDs, but magnesium, potassium, and sodium were detected below the reporting/quantitation limits. Selenium, beryllium, and cobalt were not reported in the FS. Beryllium and cobalt were detected below the reporting limit in the original and FD. Differences attributed to the use of different RLs, lack of sample homogeneity, and/or original and FD lab not reporting results below the RLs.
- Field split data for SDG PK121712

Note: Field Split Laboratory - Specialized Assays, Inc., Nashville, TN

Original Sample ID	Field Duplicate ID	Field Split ID
KD3003	KD3004	KD3005

Comments:

- Volatiles, Semivolatiles: No compounds were detected in any of the three samples.
- Metals: The majority of the same elements were detected at comparable concentrations for all samples. Aluminum had the only RPD value above the QC limit, but was detected below the reporting/quantitation limit in the original and the FD sample. Cobalt was detected below the reporting limit, but was not reported in the FS. Differences attributed to the use of different RL s, lack of sample homogeneity, and/or original and FD lab not reporting results below the RL s.

**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 'non-detect' maybe inaccurate or imprecise. The non-detect result should be estimated.

## Validation Reason Code Definitions

(Page 1 of 2)

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

## Validation Reason Code Definitions

(Page 2 of 2)

Reason Code	Description
10A	Recovery
10B	Retention Time
11	Laboratory control sample recoveries outside specified control 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

# Validation Qualification Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
									1	2	3	4		
KD0001	D2216	N 0 1	PERCENT MOISTURE	5920	mg/kg		Y	P					CQ3PGS	00:00
	SW6010	N 0 1	ALUMINUM	6.5	mg/kg	U	Y	P		08A			CQ3PGS	23:36
			ANTIMONY	3.5	mg/kg		N	U					CQ3PGS	23:36
			ARSENIC	83.1	mg/kg		Y	P					CQ3PGS	23:36
			BARIUM	0.82	mg/kg		Y	P					CQ3PGS	23:36
			BERYLLIUM	0.54	mg/kg	U	N	U					CQ3PGS	23:36
			CADMIUM	33300	mg/kg		Y	P					CQ3PGS	23:36
			CALCIUM	18.2	mg/kg		Y	P		08A			CQ3PGS	23:36
			CHROMIUM	1.6	mg/kg	B	Y	P		15			CQ3PGS	23:36
			COBALT	5.7	mg/kg		Y	P					CQ3PGS	23:36
			COPPER	7260	mg/kg		Y	P					CQ3PGS	23:36
			IRON	20.7	mg/kg		Y	P					CQ3PGS	23:36
			LEAD	8670	mg/kg		Y	P		08A			CQ3PGS	23:36
			MAGNESIUM	201	mg/kg		Y	P		08A			CQ3PGS	23:36
			MANGANESE	5.5	mg/kg		Y	P					CQ3PGS	23:36
			NICKEL	606	mg/kg		Y	P					CQ3PGS	23:36
			POTASSIUM	0.60	mg/kg		Y	P					CQ3PGS	23:36
			SELENIUM	1.1	mg/kg	U	N	U					CQ3PGS	23:36
			SILVER	166	mg/kg	B	Y	F		06A 06B 15			CQ3PGS	23:36
			SODIUM	0.49	mg/kg	B	Y	F		06C 15			CQ3PGS	23:36
			THALLIUM	17.6	mg/kg		Y	P					CQ3PGS	23:36
			VANADIUM	16.8	mg/kg		Y	P					CQ3PGS	14:56
SW6010	SW3050	N 1 1	ZINC	0.046	mg/kg		Y	P					CQ3PGS	14:07
SW7471	TOTAL	N 0 1	MERCURY	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
SW8260	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	.0054	mg/kg	U	N	U					CQ3PGS	17:41
			1,1,1-TRICHLOROETHANE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,1,2,2-TETRACHLOROETHANE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,1,2-TRICHLOROETHANE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,1-DICHLOROETHANE	.0054	mg/kg	U	N	U					CQ3PGS	17:41
			1,1-DICHLOROPROPENE	.0054	mg/kg	U	N	U					CQ3PGS	17:41
			1,2-DICHLOROBENZENE	.0054	mg/kg	U	N	U		04B 10A			CQ3PGS	17:41
			1,2,3-TRICHLOROBENZENE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,2,3-TRICHLOROPROPANE	.0054	mg/kg	U	N	U		04B 10A			CQ3PGS	17:41
			1,2,4-TRICHLOROBENZENE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,2,4-TRIMETHYLBENZENE	.0054	mg/kg	U	N	U		04A 05A 10A			CQ3PGS	17:41
			1,2-DIBROMO-3-CHLOROPROPANE	.011	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,2-DIBROMOETHANE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,2-DICHLOROBENZENE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,2-DICHLOROETHANE	.0054	mg/kg	U	N	U					CQ3PGS	17:41
			1,2-DICHLOROPROPANE	.0054	mg/kg	U	N	U					CQ3PGS	17:41
			1,3,5-TRIMETHYLBENZENE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,3-DICHLOROBENZENE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41
			1,3-DICHLOROPROPANE	.0054	mg/kg	U	N	U		10A			CQ3PGS	17:41

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 2 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
									1	2	3	4			
KD0001	SW8260 SW5030	N 0 1	1,4-DICHLOROBENZENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			2,2-DICHLOROPROPANE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			2-BUTANONE	.022	mg/kg	U	N Y U	R	04A 05A					CQ3PGS	17:41
			2-CHLOROTOLUENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			2-HEXANONE	.022	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			4-CHLOROTOLUENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			4-METHYL-2-PENTANONE	.022	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			ACETONE	.01	mg/kg	JB	Y Y F	B	04 05A 06A 07A					CQ3PGS	17:41
			BENZENE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			BROMOBENZENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			BROMOCHLOROMETHANE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			BROMODICHLOROMETHANE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			BROMOFORM	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			BROMOMETHANE	.0024	mg/kg	JB	Y Y F	B	04B 05B 06A 07A					CQ3PGS	17:41
			CARBON DISULFIDE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			CARBON TETRACHLORIDE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			CHLOROBENZENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			CHLORODIBROMOMETHANE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			CHLOROETHANE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			CHLOROFORM	.011	mg/kg	U	N Y U	UJ	05B					CQ3PGS	17:41
			CHLOROMETHANE	.011	mg/kg	U	N Y U	U						CQ3PGS	17:41
			CIS-1,2-DICHLOROETHENE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			CIS-1,3-DICHLOROPROPENE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			DIBROMOMETHANE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			DICHLORODIFLUOROMETHANE	.011	mg/kg	U	N Y U	UJ	05B					CQ3PGS	17:41
			ETHYLBENZENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			HEXACHLOROBUTADIENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			ISOPROPYLBENZENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			M-XYLENE & P-XYLENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			METHYLENE CHLORIDE	.0034	mg/kg	JB	Y Y F	B	06A 06C 07A 15					CQ3PGS	17:41
			N-BUTYLBENZENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			N-PROPYLBENZENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			NAPHTHALENE	.0054	mg/kg	U	N Y U	UJ	04B 10A					CQ3PGS	17:41
			O-XYLENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			P-ISOPROPYLTOLUENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			SEC-BUTYLBENZENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			STYRENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			TERT-BUTYLBENZENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			TETRACHLOROETHENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			TOLUENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			TRANS-1,2-DICHLOROETHENE	.0054	mg/kg	U	N Y U	U						CQ3PGS	17:41
			TRANS-1,3-DICHLOROPROPENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			TRICHLOROETHENE	.0054	mg/kg	U	N Y U	UJ	10A					CQ3PGS	17:41
			TRICHLOROFLUOROMETHANE	.011	mg/kg	U	N Y U	U						CQ3Prcc CQ3	17:41

# Validation Qualifit Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:		Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
	SW8260	SW5030								SW8270	SW3550	1	2		
KD0001	SW8260	SW5030	N 0 1	VINYL CHLORIDE	.011	mg/kg	U	N Y U	U					CQ3PGS	17:41
	SW8270	SW3550	N 0 1	1,2,4-TRICHLOROBENZENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				1,2-DICHLOROBENZENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				1,3-DICHLOROBENZENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				1,4-DICHLOROBENZENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2,2-OXYBIS(1-CHLOROPROPANE)	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2,4,5-TRICHLOROPHENOL	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2,4,6-TRICHLOROPHENOL	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2,4-DICHLOROPHENOL	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2,4-DIMETHYLPHENOL	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2,4-DINITROPHENOL	1.7	mg/kg	U	N Y U	U		08A	08B		CQ3PGS	14:19
				2,4-DINITROTOLUENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2,6-DINITROTOLUENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2-CHLORONAPHTHALENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2-CHLOROPHENOL	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2-METHYLNAPHTHALENE	.36	mg/kg	U	N Y U	U		08B			CQ3PGS	14:19
				2-METHYLPHENOL	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2-NITROANILINE	1.7	mg/kg	U	N Y U	U					CQ3PGS	14:19
				2-NITROPHENOL	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				3,3'-DICHLOROBENZIDINE	1.7	mg/kg	U	N Y U	U					CQ3PGS	14:19
				3-NITROANILINE	1.7	mg/kg	U	N Y U	U					CQ3PGS	14:19
				4,6-DINITRO-2-METHYLPHENOL	1.7	mg/kg	U	N Y U	U					CQ3PGS	14:19
				4-BROMOPHENYL PHENYL ETHER	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				4-CHLORO-3-METHYLPHENOL	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				4-CHLOROANILINE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				4-CHLOROPHENYL PHENYL ETHER	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				4-METHYLPHENOL	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				4-NITROANILINE	1.7	mg/kg	U	N Y U	U					CQ3PGS	14:19
				4-NITROPHENOL	1.7	mg/kg	U	N Y U	U					CQ3PGS	14:19
				ACENAPHTHENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				ACENAPHTHYLENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				ANTHRACENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				BENZ(A)ANTHRACENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				BENZO(A)PYRENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				BENZO(B)FLUORANTHENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				BENZO(GH)PERYLENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				BENZO(K)FLUORANTHENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				BIS(2-CHLOROETHOXY)METHANE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				BIS(2-CHLOROETHYL) ETHER	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				BIS(2-ETHYLHEXYL) PHTHALATE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				BUTYL BENZYL PHTHALATE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				CARBAZOLE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19
				CHRYSENE	.36	mg/kg	U	N Y U	U					CQ3PGS	14:19

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 4 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:			
									1	2	3	4					
KD0001	SW8270 SW3550	N 0 1	DI-N-BUTYL PHTHALATE	.36	mg/kg	U	N	U	U					CQ3PGS	14:19		
			DI-N-OCTYL PHTHALATE	.36	mg/kg	U	N	U	U	U					CQ3PGS	14:19	
			DIBENZ(A,H)ANTHRACENE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			DIBENZOFURAN	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			DIETHYL PHTHALATE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			DIMETHYL PHTHALATE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			FLUORANTHENE	.048	mg/kg	J	Y	Y	P	J	J	15				CQ3PGS	14:19
			FLUORENE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			HEXACHLOROBENZENE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			HEXACHLOROBUTADIENE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			HEXACHLOROCYCLOPENTADIENE	1.7	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			HEXACHLOROETHANE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			INDENO(1,2,3-CD)PYRENE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			ISOPHORONE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			N-NITROSODI-N-PROPYLAMINE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			N-NITROSODIPHENYLAMINE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			NAPHTHALENE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			NITROBENZENE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			PENTACHLOROPHENOL	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
			PHENANTHRENE	.36	mg/kg	U	N	U	U	U	U					CQ3PGS	14:19
PHENOL	.36	mg/kg	U	N	U	U	U	U		08B			CQ3PGS	14:19			
PYRENE	.044	mg/kg	J	Y	Y	P	J	J					CQ3PGS	14:19			
KD0002	D2216 SW6010 SW3050	N 0 1	PERCENT MOISTURE	13100	mg/kg		Y	Y	P					CQ3PKS	00:00		
			ALUMINUM	7.1	mg/kg	U	N	Y	U	UJ		08A			CQ3PKS	00:08	
			ANTIMONY	5.0	mg/kg		Y	Y	P						CQ3PKS	00:08	
			ARSENIC	52.2	mg/kg		Y	Y	P						CQ3PKS	00:08	
			BARIUM	0.72	mg/kg		Y	Y	P						CQ3PKS	00:08	
			BERYLLIUM	0.59	mg/kg	U	N	Y	U	U					CQ3PKS	00:08	
			CADMIUM	24800	mg/kg		Y	Y	P						CQ3PKS	00:08	
			CALCIUM	20.6	mg/kg		Y	Y	P	J	J	08A				CQ3PKS	00:08
			CHROMIUM	1.2	mg/kg	B	Y	Y	P	J	J	15				CQ3PKS	00:08
			COBALT	29.0	mg/kg		Y	Y	P							CQ3PKS	00:08
			COPPER	32500	mg/kg		Y	Y	P							CQ3PKS	00:08
			IRON	23.3	mg/kg		Y	Y	P							CQ3PKS	00:08
			LEAD	564	mg/kg	B	Y	Y	P	J	J	08A 15				CQ3PKS	00:08
			MAGNESIUM	70.0	mg/kg		Y	Y	P	J	J	08A				CQ3PKS	00:08
			MANGANESE	3.5	mg/kg	B	Y	Y	P	J	J	15				CQ3PKS	00:08
			NICKEL	645	mg/kg		Y	Y	P							CQ3PKS	00:08
			POTASSIUM	1.6	mg/kg		Y	Y	P							CQ3PKS	00:08
			SELENIUM	1.2	mg/kg		N	Y	U	U	U					CQ3PKS	00:08
			SILVER	234	mg/kg	B	Y	Y	P	J	J	15				CQ3PKS	00:08
			SODIUM	0.58	mg/kg	B	Y	Y	F	B	B	06C 15				CQ3PKS	00:08
THALLIUM													CQ3PKS	00:08			

# Validation Qualification Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use	BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
												1	2	3	4			
KD0002	SW6010 SW3050	N	0	1	VANADIUM	29.2	mg/kg		Y	Y	P					CQ3PKS	00:08	
					ZINC	31.6	mg/kg		Y	Y	P						CQ3PKS	15:01
	SW7471 TOTAL	N	0	1	MERCURY	0.021	mg/kg	B	Y	Y	P	J	15				CQ3PKS	14:30
	SW8260 SW5030	N	0	1	1,1,1,2-TETRACHLOROETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,1,1-TRICHLOROETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,1,2,2-TETRACHLOROETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,1,2-TRICHLOROETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,1-DICHLOROETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,1-DICHLOROETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,1-DICHLOROPROPENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,2,3-TRICHLOROBENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,2,3-TRICHLOROPROPANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,2,4-TRICHLOROBENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,2,4-TRIMETHYLBENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,2-DIBROMO-3-CHLOROPROPANE	.012	mg/kg	U	N	Y	U	R	04A 05A				CQ3PKS	13:31
					1,2-DIBROMOETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,2-DICHLOROBENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,2-DICHLOROETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,2-DICHLOROPROPANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,3,5-TRIMETHYLBENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,3-DICHLOROBENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,3-DICHLOROPROPANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					1,4-DICHLOROBENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					2,2-DICHLOROPROPANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					2-BUTANONE	.024	mg/kg	U	N	Y	U	R	04A 05A				CQ3PKS	13:31
					2-CHLOROTOLUENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					2-HEXANONE	.024	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					4-CHLOROTOLUENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					4-METHYL-2-PENTANONE	.024	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					ACETONE	.0071	mg/kg	U	Y	Y	F	B	04 05A 06A 15				CQ3PKS	13:31
					BENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					BROMOBENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					BROMOCHLOROMETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					BROMODICHLOROMETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					BROMOFORM	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					BROMOMETHANE	.0021	mg/kg	U	Y	Y	F	B	04B 05B 06A 15				CQ3PKS	13:31
					CARBON DISULFIDE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					CARBON TETRACHLORIDE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					CHLOROBENZENE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					CHLORODIBROMOMETHANE	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					CHLOROETHANE	.012	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					CHLOROFORM	.0059	mg/kg	U	N	Y	U	U					CQ3PKS	13:31
					CHLOROMETHANE	.012	mg/kg	U	N	Y	U	U					CQ3PKS	13:31

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 6 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dii:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:			
									1	2	3	4					
KD0002	SW8260 SW5030	N 0 1	CIS-1,2-DICHLOROETHENE	.0059	mg/kg	U	N	U	U					CQ3PKS	13:31		
			CIS-1,3-DICHLOROPROPENE	.0059	mg/kg	U	N	U	U	U					CQ3PKS	13:31	
			DIBROMOMETHANE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			DICHLORODIFLUOROMETHANE	.012	mg/kg	U	N	Y	U	U	U		05B			CQ3PKS	13:31
			ETHYLBENZENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			HEXACHLOROBUTADIENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			ISOPROPYLBENZENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			M-XYLENE & P-XYLENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			METHYLENE CHLORIDE	.0027	mg/kg	J B	Y	Y	F	B	B		06A	06C	15	CQ3PKS	13:31
			N-BUTYLBENZENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			N-PROPYLBENZENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			NAPHTHALENE	.0059	mg/kg	U	N	Y	U	U	U		04B			CQ3PKS	13:31
			O-XYLENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			P-ISOPROPYLTOLUENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			SEC-BUTYLBENZENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			STYRENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			TERT-BUTYLBENZENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			TETRACHLOROETHENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			TOLUENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
			TRANS-1,2-DICHLOROETHENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31
TRANS-1,3-DICHLOROPROPENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31			
TRICHLOROETHENE	.0059	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31			
TRICHLOROFUOROMETHANE	.012	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31			
VINYL CHLORIDE	.012	mg/kg	U	N	Y	U	U	U					CQ3PKS	13:31			
1,2,4-TRICHLOROETHENE	.39	mg/kg	U	N	Y	U	U	U		08A	08B		CQ3PKS	10:54			
1,2-DICHLOROETHENE	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
1,3-DICHLOROETHENE	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
1,4-DICHLOROETHENE	.39	mg/kg	U	N	Y	U	U	U		08A	08B		CQ3PKS	10:54			
2,2'-OXYBIS(1-CHLOROPROPANE)	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2,4,5-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2,4,6-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2,4-DICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2,4-DIMETHYLPHENOL	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2,4-DINITROPHENOL	1.9	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2,4-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2,6-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2-CHLORONAPHTHALENE	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2-CHLOROPHENOL	.39	mg/kg	U	N	Y	U	U	U		08A	08B		CQ3PKS	10:54			
2-METHYLNAPHTHALENE	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2-NITROANILINE	1.9	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
2-NITROPHENOL	.39	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			
3,3'-DICHLOROBENZIDINE	1.9	mg/kg	U	N	Y	U	U	U					CQ3PKS	10:54			

# Validation Qualif Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:				
									1	2	3	4						
KD0002	SW8270 SW3550	N 0 1	3-NITROANILINE	1.9	mg/kg	U	N	Y	U	U					CQ3PKS	10:54		
			4,6-DINITRO-2-METHYLPHENOL	1.9	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			4-BROMOPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			4-CHLORO-3-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			4-CHLOROANILINE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			4-CHLOROPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			4-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			4-NITROANILINE	1.9	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			4-NITROPHENOL	1.9	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			ACENAPHTHENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			ACENAPHTHYLENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			ANTHRACENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			BENZ(A)ANTHRACENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			BENZO(A)PYRENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			BENZO(B)FLUORANTHENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			BENZO(GH)PERYLENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			BENZO(K)FLUORANTHENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			BIS(2-CHLOROETHOXY)METHANE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			BIS(2-CHLOROETHYL) ETHER	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			BIS(2-ETHYLHEXYL) PHTHALATE	.061	mg/kg	J	Y	Y	P	J						15	CQ3PKS	10:54
			BUTYL BENZYL PHTHALATE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			CARBAZOLE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			CHRYSENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			DI-N-BUTYL PHTHALATE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			DI-N-OCTYL PHTHALATE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			DIBENZ(A,H)ANTHRACENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			DIBENZOFURAN	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			DIETHYL PHTHALATE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			DIMETHYL PHTHALATE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			FLUORANTHENE	.046	mg/kg	J	N	Y	P	J						15	CQ3PKS	10:54
			FLUORENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			HEXACHLOROBENZENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
			HEXACHLOROBUTADIENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54
HEXACHLOROCYCLOPENTADIENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
HEXACHLOROETHANE	1.9	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
INDENO(1,2,3-CD)PYRENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
ISOPHORONE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
N-NITROSODI-N-PROPYLAMINE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
N-NITROSODIPHENYLAMINE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
NAPHTHALENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
NITROBENZENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
PENTACHLOROPHENOL	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
PHENANTHRENE	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			
PHENOL	.39	mg/kg	U	N	Y	U	U	U						CQ3PKS	10:54			

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 8 of 39

Sample Number:	Analytical/Extraction Method:	Fit	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:					
													1	2	3	4							
KD0002	SW8270	N	0	1	PYRENE	.39	mg/kg	U	N	Y	U	UJ	08A	08B			CQ3PKS	10:54					
KD0003	D2216	N	0	1	PERCENT MOISTURE				Y	Y	P						CQ3PVS	00:00					
	SW6010	N	0	1	ALUMINUM	7070	mg/kg	U		Y	P			08A			CQ3PVS	00:13					
					ANTIMONY	7.0	mg/kg		N	Y	U	UJ					CQ3PVS	00:13					
					ARSENIC	4.3	mg/kg		Y	Y	P						CQ3PVS	00:13					
					BARIIUM	71.1	mg/kg		Y	Y	P						CQ3PVS	00:13					
					BERYLLIUM	0.54	mg/kg	B	Y	Y	P	J	15				CQ3PVS	00:13					
					CADMIUM	0.58	mg/kg	U	N	Y	U	U					CQ3PVS	00:13					
					CALCIUM	690	mg/kg		Y	Y	P						CQ3PVS	00:13					
					CHROMIUM	6.6	mg/kg		Y	Y	P	J	08A				CQ3PVS	00:13					
					COBAL.T	3.8	mg/kg	B	Y	Y	P	J	15				CQ3PVS	00:13					
					COPPER	27.7	mg/kg		Y	Y	P						CQ3PVS	00:13					
					IRON	9000	mg/kg		Y	Y	P						CQ3PVS	00:13					
					LEAD	77.5	mg/kg		Y	Y	P						CQ3PVS	00:13					
					MAGNESIUM	258	mg/kg	B	Y	Y	P	J	08A	15			CQ3PVS	00:13					
					NICKEL	4.3	mg/kg	B	Y	Y	P	J	15				CQ3PVS	00:13					
					POTASSIUM	115	mg/kg	B	Y	Y	P	J	15				CQ3PVS	00:13					
					SELENIUM	0.59	mg/kg		Y	Y	P						CQ3PVS	00:13					
					SILVER	1.2	mg/kg	U	N	Y	U	U					CQ3PVS	00:13					
					SODIUM	54.0	mg/kg	B	Y	Y	F	B	06A	06B	06C	15		CQ3PVS	00:13				
					THALLIUM	1.2	mg/kg	U	N	Y	U	U						CQ3PVS	00:13				
					VANADIUM	15.7	mg/kg		Y	Y	P							CQ3PVS	00:13				
					ZINC	27.3	mg/kg		Y	Y	P							CQ3PVS	15:06				
SW6010	SW3050	N	1	2	MANGANESE	1280	mg/kg		Y	Y	P	J	08A				CQ3PVS	00:18					
SW7471	TOTAL	N	0	1	MERCURY	0.092	mg/kg		Y	Y	P						CQ3PVS	14:32					
SW8260	SW5030	N	0	1	1,1,1,2-TETRACHLOROETHANE	.0058	mg/kg	U	N	Y	U	U					CQ3PVS	13:56					
					1,1,1-TRICHLOROETHANE	.0058	mg/kg	U	N	Y	U	U							CQ3PVS	13:56			
					1,1,2,2-TETRACHLOROETHANE	.0058	mg/kg	U	N	Y	U	U								CQ3PVS	13:56		
					1,1,2-TRICHLOROETHANE	.0058	mg/kg	U	N	Y	U	U									CQ3PVS	13:56	
					1,1-DICHLOROETHANE	.0058	mg/kg	U	N	Y	U	U									CQ3PVS	13:56	
					1,1-DICHLOROETHENE	.0058	mg/kg	U	N	Y	U	U									CQ3PVS	13:56	
					1,1-DICHLOROPROPENE	.0058	mg/kg	U	N	Y	U	U									CQ3PVS	13:56	
					1,2,3-TRICHLOROBENZENE	.0058	mg/kg	U	N	Y	U	UJ	04B	10A							CQ3PVS	13:56	
					1,2,3-TRICHLOROPROPANE	.0058	mg/kg	U	N	Y	U	UJ	10A								CQ3PVS	13:56	
					1,2,4-TRICHLOROBENZENE	.0058	mg/kg	U	N	Y	U	UJ	10A									CQ3PVS	13:56
					1,2,4-TRIMETHYLBENZENE	.0058	mg/kg	U	N	Y	U	UJ	10A									CQ3PVS	13:56
					1,2-DIBROMO-3-CHLOROPROPANE	.012	mg/kg	U	N	Y	U	R	04A	05A	10A							CQ3PVS	13:56
					1,2-DIBROMOETHANE	.0058	mg/kg	U	N	Y	U	U										CQ3PVS	13:56
					1,2-DICHLOROBENZENE	.0058	mg/kg	U	N	Y	U	UJ	10A									CQ3PVS	13:56
					1,2-DICHLOROETHANE	.0058	mg/kg	U	N	Y	U	U										CQ3PVS	13:56
1,2-DICHLOROPROPANE	.0058	mg/kg	U	N	Y	U	U										CQ3PVS	13:56					
1,3,5-TRIMETHYLBENZENE	.0058	mg/kg	U	N	Y	U	UJ	10A									CQ3PVS	13:56					
1,3-DICHLOROBENZENE	.0058	mg/kg	U	N	Y	U	UJ	10A									CQ3PVS	13:56					

# Validation Qualifi Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:						
									1	2	3	4								
KD0003	SW8260 SW5030	N 0 1	1,3-DICHLOROPROPANE	.0058	mg/kg	U	N	Y	U	U					CQ3PVS	13:56				
			1,4-DICHLOROBENZENE	.0058	mg/kg	U	N	Y	U	U	U						CQ3PVS	13:56		
			2,2-DICHLOROPROPANE	.0058	mg/kg	U	N	Y	U	U	U							CQ3PVS	13:56	
			2-BUTANONE	.023	mg/kg	U	N	Y	U	R	U								CQ3PVS	13:56
			2-CHLOROTOLUENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			2-HEXANONE	.023	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			4-CHLOROTOLUENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			4-METHYL-2-PENTANONE	.023	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			ACETONE	.0086	mg/kg	JB	Y	Y	F	B	U								CQ3PVS	13:56
			BENZENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			BROMOBENZENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			BROMOCHLOROMETHANE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			BROMODICHLOROMETHANE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			BROMOFORM	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			BROMOMETHANE	.0024	mg/kg	JB	Y	Y	F	B	U								CQ3PVS	13:56
			CARBON DISULFIDE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			CARBON TETRACHLORIDE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			CHLOROBENZENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			CHLORODIBROMOMETHANE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			CHLOROETHANE	.012	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			CHLOROFORM	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			CHLOROMETHANE	.012	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			CIS-1,2-DICHLOROETHENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			CIS-1,3-DICHLOROPROPENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			DIBROMOMETHANE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			DICHLORODIFLUOROMETHANE	.012	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
			ETHYLBENZENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56
HEXACHLOROBUTADIENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
ISOPROPYLBENZENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
M-XYLENE & P-XYLENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
METHYLENE CHLORIDE	.0025	mg/kg	JB	Y	Y	F	B	U								CQ3PVS	13:56			
N-BUTYLBENZENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
N-PROPYLBENZENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
NAPHTHALENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
O-XYLENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
P-ISOPROPYLTOLUENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
SEC-BUTYLBENZENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
STYRENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
TERT-BUTYLBENZENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
TETRACHLOROETHENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
TOLUENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
TRANS-1,2-DICHLOROETHENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
TRANS-1,3-DICHLOROPROPENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			
TRICHLOROETHENE	.0058	mg/kg	U	N	Y	U	U	U								CQ3PVS	13:56			

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 10 of 39

Sample Number:	Analytical/Extraction Method:		Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:		
	1	2								3	4						
KD0003	SW8260	SW5030	N 0 1	TRICHLOROFLUOROMETHANE	.012	mg/kg	U	N	Y	U					CQ3PVS	13:56	
				VINYL CHLORIDE	.012	mg/kg	U	N	Y	U						CQ3PVS	13:56
	SW8270	SW3550	N 0 1	1,2,4-TRICHLOROBENZENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				1,2-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				1,3-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				1,4-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2,2'-OXYBIS(1-CHLOROPROPANE)	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2,4,5-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2,4,6-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2,4-DICHLOROPHENOL	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2,4-DIMETHYLPHENOL	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2,4-DINITROPHENOL	1.9	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2,4-DINITROTOLUENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2,6-DINITROTOLUENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2-CHLORONAPHTHALENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2-CHLOROPHENOL	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2-METHYLNAPHTHALENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2-METHYLPHENOL	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2-NITROANILINE	1.9	mg/kg	U	N	Y	U						CQ3PVS	09:56
				2-NITROPHENOL	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				3,3'-DICHLOROBENZIDINE	1.9	mg/kg	U	N	Y	U						CQ3PVS	09:56
				3-NITROANILINE	1.9	mg/kg	U	N	Y	U						CQ3PVS	09:56
				4,6-DINITRO-2-METHYLPHENOL	1.9	mg/kg	U	N	Y	U						CQ3PVS	09:56
				4-BROMOPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				4-CHLORO-3-METHYLPHENOL	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				4-CHLOROANILINE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				4-CHLOROPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				4-METHYLPHENOL	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				4-NITROANILINE	1.9	mg/kg	U	N	Y	U						CQ3PVS	09:56
				4-NITROPHENOL	1.9	mg/kg	U	N	Y	U						CQ3PVS	09:56
				ACENAPHTHENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				ACENAPHTHYLENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				ANTHRACENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				BENZ(A)ANTHRACENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				BENZO(A)PYRENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				BENZO(B)FLUORANTHENE	.043	mg/kg	J	Y	Y	P	J					CQ3PVS	09:56
				BENZO(GH)PERYLENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				BENZO(K)FLUORANTHENE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				BIS(2-CHLOROETHOXY)METHANE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				BIS(2-CHLOROETHYL) ETHER	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				BIS(2-ETHYLHEXYL) PHTHALATE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				BUTYL BENZYL PHTHALATE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56
				CARBAZOLE	.39	mg/kg	U	N	Y	U						CQ3PVS	09:56



# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 12 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
									1	2	3	4			
KD0004	SW6010 SW3050	N 0 1	THALLIUM	1.2	mg/kg	U	N Y U U	U						CQ3PWS	00:23
			VANADIUM	34.7	mg/kg		Y Y P							CQ3PWS	00:23
			ZINC	38.5	mg/kg		Y Y P							CQ3PWS	15:10
	SW7471 TOTAL	N 0 1	MERCURY	0.014	mg/kg	B	Y Y P	J	15					CQ3PWS	14:35
	SW8260 SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,1,1-TRICHLOROETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,1,2,2-TETRACHLOROETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,1,2-TRICHLOROETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,1-DICHLOROETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,1-DICHLOROETHENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,1-DICHLOROPROPENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,2,3-TRICHLOROBENZENE	.0059	mg/kg	U	N Y U U	UJ	04B					CQ3PWS	14:21
			1,2,3-TRICHLOROPROPANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,2,4-TRICHLOROBENZENE	.0059	mg/kg	U	N Y U U	UJ	04B					CQ3PWS	14:21
			1,2,4-TRIMETHYLBENZENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,2-DIBROMO-3-CHLOROPROPANE	.012	mg/kg	U	N Y U U	R	04A 05A					CQ3PWS	14:21
			1,2-DIBROMOETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,2-DICHLOROBENZENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,2-DICHLOROETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,2-DICHLOROPROPANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,3,5-TRIMETHYLBENZENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,3-DICHLOROBENZENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,3-DICHLOROPROPANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			1,4-DICHLOROBENZENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			2,2-DICHLOROPROPANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			2-BUTANONE	.024	mg/kg	U	N Y U U	R	04A 05A					CQ3PWS	14:21
			2-CHLOROTOLUENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			2-HEXANONE	.024	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			4-CHLOROTOLUENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			4-METHYL-2-PENTANONE	.024	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			ACETONE	.075	mg/kg	B	Y Y P	J	04 05A					CQ3PWS	14:21
			BENZENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			BROMOBENZENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			BROMOCHLOROMETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			BROMODICHLOROMETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			BROMOFORM	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			BROMOMETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			CARBON DISULFIDE	.0023	mg/kg	JB	Y Y F	B	04B 05B 06A 15					CQ3PWS	14:21
			CARBON TETRACHLORIDE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			CHLOROBENZENE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			CHLORODIBROMOMETHANE	.0059	mg/kg	U	N Y U U	U						CQ3PWS	14:21
			CHLOROETHANE	.012	mg/kg	U	N Y U U	UJ	05B					CQ3PWS	14:21
			CHLOROFORM	.0059	mg/kg	U	N Y U U	U						CQ3P	14:21

# Validation Qualifier Data Entry Verification

Fort McClellan

Page: 13 of 39

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
									1	2	3	4		
KD0004	SW8260 SW5030	N 0 1	CHLOROMETHANE	.012	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			CIS-1,2-DICHLOROETHENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			CIS-1,3-DICHLOROPROPENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			DIBROMOMETHANE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			DICHLORODIFLUOROMETHANE	.012	mg/kg	U	N	Y	U	U		05B	CQ3PWS	14:21
			ETHYLBENZENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			HEXACHLOROBUTADIENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			ISOPROPYLBENZENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			M-XYLENE & P-XYLENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			METHYLENE CHLORIDE	.0031	mg/kg	JB	Y	Y	F	B		06A 06C 15	CQ3PWS	14:21
			N-BUTYLBENZENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			N-PROPYLBENZENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			NAPHTHALENE	.0059	mg/kg	U	N	Y	U	U		04B	CQ3PWS	14:21
			O-XYLENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			P-ISOPROPYLTOLUENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			SEC-BUTYLBENZENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			STYRENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			TERT-BUTYLBENZENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			TETRACHLOROETHENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			TOLUENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			TRANS-1,2-DICHLOROETHENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			TRANS-1,3-DICHLOROPROPENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			TRICHLOROETHENE	.0059	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			TRICHLOROFLUOROMETHANE	.012	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
			VINYL CHLORIDE	.012	mg/kg	U	N	Y	U	U			CQ3PWS	14:21
SW8270	SW3550	N 0 1	1,2,4-TRICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			1,2-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			1,3-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			1,4-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2,2-OXYBIS(1-CHLOROPROPANE)	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2,4,5-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2,4,6-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2,4-DICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2,4-DIMETHYLPHENOL	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2,4-DINITROPHENOL	1.9	mg/kg	U	N	Y	U	U		08A 08B	CQ3PWS	11:14
			2,4-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2,6-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2-CHLORONAPHTHALENE	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2-CHLOROPHENOL	.39	mg/kg	U	N	Y	U	U		08B	CQ3PWS	11:14
			2-METHYLNAPHTHALENE	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2-NITROANILINE	1.9	mg/kg	U	N	Y	U	U			CQ3PWS	11:14
			2-NITROPHENOL	.39	mg/kg	U	N	Y	U	U			CQ3PWS	11:14

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 14 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Analysis Time:				
									1	2	3	4					
KD0004	SW8270 SW3550	N 0 1	3,3'-DICHLOROBENZIDINE	1.9	mg/kg	U	N	Y	U	U					CQ3PWS	11:14	
			3-NITROANILINE	1.9	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			4,6-DINITRO-2-METHYLPHENOL	1.9	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			4-BROMOPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			4-CHLORO-3-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			4-CHLOROANILINE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			4-CHLOROPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			4-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			4-NITROANILINE	1.9	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			4-NITROPHENOL	1.9	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			ACENAPHTHENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			ACENAPHTHYLENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			ANTHRACENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			BENZ(A)ANTHRACENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			BENZO(A)PYRENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			BENZO(B)FLUORANTHENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			BENZO(GH)PERYLENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			BENZO(K)FLUORANTHENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			BIS(2-CHLOROETHOXY)METHANE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			BIS(2-CHLOROETHYL) ETHER	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			BIS(2-ETHYLHEXYL) PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			BUTYL BENZYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			CARBAZOLE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			CHRYSENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			DI-N-BUTYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			DI-N-OCTYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			DIBENZ(A,H)ANTHRACENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			DIBENZOFURAN	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			DIETHYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			DIMETHYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			FLUORANTHENE	.047	mg/kg	J	Y	Y	P	J						CQ3PWS	11:14
			FLUORENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			HEXACHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			HEXACHLOROBUTADIENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			HEXACHLOROCYCLOPENTADIENE	1.9	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			HEXACHLOROETHANE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			INDENO(1,2,3-CD)PYRENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			ISOPHORONE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			N-NITROSODI-N-PROPYLAMINE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			N-NITROSODIPHENYLAMINE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			NAPHTHALENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			NITROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			PENTACHLOROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14
			PHENANTHRENE	.39	mg/kg	U	N	Y	U	U						CQ3PWS	11:14

# Validation Qualification Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
									1	2	3	4			
KD0004	SW8270	SW3550	PHENOL	.39	mg/kg	U	N	Y	U	UJ	08B			CQ3PWS	11:14
			PYRENE	.39	mg/kg	U	N	Y	U	U					CQ3PWS
KD0005	D2216	NONE	PERCENT MOISTURE	7890	mg/kg	U	Y	Y	P					CQ3PXS	00:00
	SW6010	SW3050	ALUMINUM	7.1	mg/kg	U	N	Y	U	UJ	08A			CQ3PXS	00:34
			ANTIMONY	8.1	mg/kg		Y	Y	P					CQ3PXS	00:34
			ARSENIC	143	mg/kg		Y	Y	P					CQ3PXS	00:34
			BERYLLIUM	0.45	mg/kg	B	Y	Y	P	J	15			CQ3PXS	00:34
			CADMIUM	0.59	mg/kg	U	N	Y	U	U				CQ3PXS	00:34
			CALCIUM	1740	mg/kg		Y	Y	P					CQ3PXS	00:34
			CHROMIUM	18.3	mg/kg		Y	Y	P	J	08A			CQ3PXS	00:34
			COBALT	4.0	mg/kg	B	Y	Y	P	J	15			CQ3PXS	00:34
			COPPER	89.5	mg/kg		Y	Y	P					CQ3PXS	00:34
			IRON	15200	mg/kg		Y	Y	P	J	17			CQ3PXS	00:34
			LEAD	92.2	mg/kg		Y	Y	P					CQ3PXS	00:34
			MAGNESIUM	296	mg/kg	B	Y	Y	P	J	08A 15			CQ3PXS	00:34
			MANGANESE	378	mg/kg		Y	Y	P	J	08A			CQ3PXS	00:34
			NICKEL	4.8	mg/kg		Y	Y	P					CQ3PXS	00:34
			POTASSIUM	193	mg/kg	B	Y	Y	P	J	15			CQ3PXS	00:34
			SELENIUM	0.92	mg/kg		Y	Y	P					CQ3PXS	00:34
		SILVER	1.2	mg/kg	U	N	Y	U	U				CQ3PXS	00:34	
		SODIUM	86.1	mg/kg	B	Y	Y	F	B	06A 06B 06C 15			CQ3PXS	00:34	
		THALLIUM	1.2	mg/kg	U	N	Y	U	U				CQ3PXS	00:34	
		VANADIUM	22.7	mg/kg		Y	Y	P					CQ3PXS	00:34	
		ZINC	86.2	mg/kg		Y	Y	P					CQ3PXS	15:15	
SW7471	TOTAL		MERCURY	1.3	mg/kg		Y	Y	P				CQ3PXS	14:37	
SW8260			1,1,1,2-TETRACHLOROETHANE	.0059	mg/kg	U	N	Y	U	U			CQ3PXS	14:46	
			1,1,1-TRICHLOROETHANE	.0059	mg/kg	U	N	Y	U	U			CQ3PXS	14:46	
			1,1,2,2-TETRACHLOROETHANE	.0059	mg/kg	U	N	Y	U	U			CQ3PXS	14:46	
			1,1,2-TRICHLOROETHANE	.0059	mg/kg	U	N	Y	U	U			CQ3PXS	14:46	
			1,1-DICHLOROETHANE	.0059	mg/kg	U	N	Y	U	U			CQ3PXS	14:46	
			1,1-DICHLOROETHENE	.0059	mg/kg	U	N	Y	U	U			CQ3PXS	14:46	
			1,1-DICHLOROPROPENE	.0059	mg/kg	U	N	Y	U	U			CQ3PXS	14:46	
			1,2,3-TRICHLOROBENZENE	.0059	mg/kg	U	N	Y	U	UJ	04B 10A			CQ3PXS	14:46
			1,2,3-TRICHLOROPROPANE	.0059	mg/kg	U	N	Y	U	UJ	10A			CQ3PXS	14:46
			1,2,4-TRICHLOROBENZENE	.0059	mg/kg	U	N	Y	U	UJ	04B 10A			CQ3PXS	14:46
			1,2,4-TRIMETHYLBENZENE	.0059	mg/kg	U	N	Y	U	UJ	10A			CQ3PXS	14:46
			1,2-DIBROMO-3-CHLOROPROPANE	.012	mg/kg	U	N	Y	U	R	04A 05A 10A			CQ3PXS	14:46
			1,2-DIBROMOETHANE	.0059	mg/kg	U	N	Y	U	U				CQ3PXS	14:46
			1,2-DICHLOROBENZENE	.0059	mg/kg	U	N	Y	U	UJ	10A			CQ3PXS	14:46
			1,2-DICHLOROETHANE	.0059	mg/kg	U	N	Y	U	U				CQ3PXS	14:46
			1,2-DICHLOROPROPANE	.0059	mg/kg	U	N	Y	U	U				CQ3PXS	14:46
			1,3,5-TRIMETHYLBENZENE	.0059	mg/kg	U	N	Y	U	UJ	10A			CQ3PXS	14:46

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 16 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
									1	2	3	4			
KD0005	SW8260 SW5030	N 0 1	1,3-DICHLOROBENZENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			1,3-DICHLOROPROPANE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			1,4-DICHLOROBENZENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			2,2-DICHLOROPROPANE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			2-BUTANONE	.024	mg/kg	U	N Y U	R	04A 05A					CQ3PXS	14:46
			2-CHLOROTOLUENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			2-HEXANONE	.024	mg/kg	U	N Y U	U						CQ3PXS	14:46
			4-CHLOROTOLUENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			4-METHYL-2-PENTANONE	.024	mg/kg	U	N Y U	U						CQ3PXS	14:46
			ACETONE	.012	mg/kg	JB	Y Y F	B	04 05A 06A 15					CQ3PXS	14:46
			BENZENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			BROMOBENZENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			BROMOCHLOROMETHANE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			BROMODICHLOROMETHANE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			BROMOFORM	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			BROMOMETHANE	.0018	mg/kg	JB	Y Y F	B	04B 05B 06A 15					CQ3PXS	14:46
			CARBON DISULFIDE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			CARBON TETRACHLORIDE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			CHLOROBENZENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			CHLORODIBROMOMETHANE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			CHLOROETHANE	.012	mg/kg	U	N Y U	UJ	05B					CQ3PXS	14:46
			CHLOROFORM	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			CHLOROMETHANE	.012	mg/kg	U	N Y U	U						CQ3PXS	14:46
			CIS-1,2-DICHLOROETHENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			CIS-1,3-DICHLOROPROPENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			DIBROMOMETHANE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			DICHLORODIFLUOROMETHANE	.012	mg/kg	U	N Y U	UJ	05B					CQ3PXS	14:46
			ETHYLBENZENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			HEXACHLOROBUTADIENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			ISOPROPYLBENZENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			M-XYLENE & P-XYLENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			METHYLENE CHLORIDE	.0026	mg/kg	JB	Y Y F	B	06A 06C 15					CQ3PXS	14:46
			N-BUTYLBENZENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			N-PROPYLBENZENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			NAPHTHALENE	.0059	mg/kg	U	N Y U	UJ	04B 10A					CQ3PXS	14:46
			O-XYLENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			P-ISOPROPYLTOLUENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			SEC-BUTYLBENZENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			STYRENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			TERT-BUTYLBENZENE	.0059	mg/kg	U	N Y U	UJ	10A					CQ3PXS	14:46
			TETRACHLOROETHENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			TOLUENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			TRANS-1,2-DICHLOROETHENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46
			TRANS-1,3-DICHLOROPROPENE	.0059	mg/kg	U	N Y U	U						CQ3PXS	14:46

# Validation Qualifier Data Entry Verification

Fort McClellan

Page: 17 of 39

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:		
													1	2	3	4				
KD0005	SW8260	SW5030	N	0	1	TRICHLOROETHENE	.0059	mg/kg	U	N	Y	U	U					CQ3PXS	14:46	
						TRICHLOROFUOROMETHANE	.012	mg/kg	U	N	Y	U	U						CQ3PXS	14:46
						VINYL CHLORIDE	.012	mg/kg	U	N	Y	U	U						CQ3PXS	14:46
	SW8270	SW3550	N	0	1	1,2,4-TRICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						1,2-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						1,3-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						1,4-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2,2'-OXYBIS(1-CHLOROPROPANE)	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2,4,5-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2,4,6-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2,4-DICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2,4-DIMETHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2,4-DINITROPHENOL	1.9	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2,4-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2,6-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2-CHLORONAPHTHALENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2-CHLOROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2-METHYLNAPHTHALENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2-NITROANILINE	1.9	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						2-NITROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						3,3'-DICHLOROBENZIDINE	1.9	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						3-NITROANILINE	1.9	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						4,6-DINITRO-2-METHYLPHENOL	1.9	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						4-BROMOPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						4-CHLORO-3-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						4-CHLOROANILINE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						4-CHLOROPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						4-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						4-NITROANILINE	1.9	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						4-NITROPHENOL	1.9	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						ACENAPHTHENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						ACENAPHTHYLENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						ANTHRACENE	.074	mg/kg	J	Y	Y	P	J		15				CQ3PXS	11:51
						BENZ(A)ANTHRACENE	.32	mg/kg	JB	Y	Y	P	J		15	17			CQ3PXS	11:51
						BENZO(A)PYRENE	.26	mg/kg	J	Y	Y	P	J		15	17			CQ3PXS	11:51
						BENZO(B)FLUORANTHENE	.38	mg/kg	J	Y	Y	P	J		15	17			CQ3PXS	11:51
						BENZO(GH)PERYLENE	.16	mg/kg	J	Y	Y	P	J		15				CQ3PXS	11:51
						BENZO(K)FLUORANTHENE	.13	mg/kg	J	Y	Y	P	J		15				CQ3PXS	11:51
						BIS(2-CHLOROETHOXY)METHANE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						BIS(2-CHLOROETHYL) ETHER	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						BIS(2-ETHYLHEXYL) PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
						BUTYL BENZYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 18 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:			
									1	2	3	4					
KD0005	SW8270 SW3550	N 0 1	CARBAZOLE	.054	mg/kg	J	Y	P	J	15				CQ3PXS	11:51		
			CHRYSENE	.31	mg/kg	JB	Y	P	J	15	17				CQ3PXS	11:51	
			DI-N-BUTYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			DI-N-OCTYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			DIBENZ(A,H)ANTHRACENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			DIBENZOFURAN	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			DIETHYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			DIMETHYL PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			FLUORANTHENE	.7	mg/kg	U	Y	Y	P	J	17					CQ3PXS	11:51
			FLUORENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			HEXACHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			HEXACHLOROBUTADIENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			HEXACHLOROCYCLOPENTADIENE	1.9	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			HEXACHLOROETHANE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			INDENO(1,2,3-CD)PYRENE	.17	mg/kg	J	Y	Y	P	J	15					CQ3PXS	11:51
			ISOPHORONE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			N-NITROSODI-N-PROPYLAMINE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			N-NITROSODIPHENYLAMINE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			NAPHTHALENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
			NITROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51
PENTACHLOROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3PXS	11:51			
PHENANTHRENE	.32	mg/kg	J	Y	Y	P	J	15	17				CQ3PXS	11:51			
PHENOL	.39	mg/kg	U	N	Y	U	UJ	08B					CQ3PXS	11:51			
PYRENE	.52	mg/kg	U	Y	Y	P	J	17					CQ3PXS	11:51			
PERCENT MOISTURE				Y	Y								CQ3Q0S	00:00			
KD0006	D2216 SW6010	N 0 1	ALUMINUM	8360	mg/kg		Y	Y						CQ3Q0S	00:39		
			ANTIMONY	7.1	mg/kg	U	N	Y	UJ	08A					CQ3Q0S	00:39	
			ARSENIC	9.7	mg/kg		Y	Y								CQ3Q0S	00:39
			BARIUM	155	mg/kg		Y	Y								CQ3Q0S	00:39
			BERYLLIUM	0.52	mg/kg	B	Y	Y	J	15						CQ3Q0S	00:39
			CADMIUM	0.59	mg/kg	U	N	Y	U							CQ3Q0S	00:39
			CALCIUM	1670	mg/kg		Y	Y								CQ3Q0S	00:39
			CHROMIUM	27.7	mg/kg		Y	Y	J	08A						CQ3Q0S	00:39
			COBALT	4.7	mg/kg	B	Y	Y	J	15						CQ3Q0S	00:39
			COPPER	82.4	mg/kg		Y	Y								CQ3Q0S	00:39
			IRON	25700	mg/kg		Y	Y	J	17						CQ3Q0S	00:39
			LEAD	64.2	mg/kg		Y	Y								CQ3Q0S	00:39
			MAGNESIUM	335	mg/kg	B	Y	Y	J	08A	15					CQ3Q0S	00:39
			MANGANESE	412	mg/kg		Y	Y	J	08A						CQ3Q0S	00:39
			NICKEL	6.4	mg/kg		Y	Y								CQ3Q0S	00:39
			POTASSIUM	186	mg/kg	B	Y	Y	J	15						CQ3Q0S	00:39
			SELENIUM	1.1	mg/kg		Y	Y								CQ3Q0S	00:39
			SILVER	1.2	mg/kg	U	N	Y	U							CQ3Q0S	00:39

# Validation Qualification Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dtl:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:		
									1	2	3	4				
KD0006	SW6010 SW3050	N 0 1	SODIUM	73.2	mg/kg	B	Y	B	06A	06B	06C	15	CQ3Q0S	00:39		
			THALLIUM	1.2	mg/kg	U	N	Y	U					CQ3Q0S	00:39	
			VANADIUM	27.7	mg/kg		Y	Y						CQ3Q0S	00:39	
			ZINC	86.3	mg/kg		Y	Y						CQ3Q0S	15:34	
			MERCURY	0.81	mg/kg		Y	Y						CQ3Q0S	14:44	
			1,1,1,2-TETRACHLOROETHANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11
			1,1,1-TRICHLOROETHANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11
			1,1,2,2-TETRACHLOROETHANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11
			1,1,2-TRICHLOROETHANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11
			1,1-DICHLOROETHANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11
1,1-DICHLOROETHENE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
1,1-DICHLOROPROPENE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
1,2,3-TRICHLOROBENZENE	.0059	mg/kg	U	N	Y	U			04B	10A		CQ3Q0S	15:11			
1,2,3-TRICHLOROPROPANE	.0059	mg/kg	U	N	Y	U			10A			CQ3Q0S	15:11			
1,2,4-TRICHLOROBENZENE	.0059	mg/kg	U	N	Y	U			04B	10A		CQ3Q0S	15:11			
1,2,4-TRIMETHYLBENZENE	.0059	mg/kg	U	N	Y	U			10A			CQ3Q0S	15:11			
1,2-DIBROMO-3-CHLOROPROPANE	.012	mg/kg	U	N	Y	R			04A	05A	10A	CQ3Q0S	15:11			
1,2-DIBROMOETHANE	.0059	mg/kg	U	N	Y	U			10A			CQ3Q0S	15:11			
1,2-DICHLOROBENZENE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
1,2-DICHLOROETHANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
1,2-DICHLOROPROPANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
1,3,5-TRIMETHYLBENZENE	.0059	mg/kg	U	N	Y	U			10A			CQ3Q0S	15:11			
1,3-DICHLOROBENZENE	.0059	mg/kg	U	N	Y	U			10A			CQ3Q0S	15:11			
1,3-DICHLOROPROPANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
1,4-DICHLOROBENZENE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
2,2-DICHLOROPROPANE	.0059	mg/kg	U	N	Y	U			10A			CQ3Q0S	15:11			
2-BUTANONE	.024	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
2-CHLOROTOLUENE	.0059	mg/kg	U	N	Y	R			04A	05A		CQ3Q0S	15:11			
2-HEXANONE	.024	mg/kg	U	N	Y	U			10A			CQ3Q0S	15:11			
4-CHLOROTOLUENE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
4-METHYL-2-PENTANONE	.024	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
ACETONE	.0059	mg/kg	U	N	Y	U			10A			CQ3Q0S	15:11			
BENZENE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
BROMOBENZENE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
BROMOCHLOROMETHANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
BROMODICHLOROMETHANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
BROMOFORM	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
BROMOMETHANE	.0023	mg/kg	U	N	Y	J B						CQ3Q0S	15:11			
CARBON DISULFIDE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
CARBON TETRACHLORIDE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
CHLOROBENZENE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
CHLORODIBROMOMETHANE	.0059	mg/kg	U	N	Y	U						CQ3Q0S	15:11			
CHLOROETHANE	.012	mg/kg	U	N	Y	U			05B			CQ3Q0S	15:11			

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 20 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:			
									1	2	3	4					
KD0006	SW8260 SW5030	N 0 1	CHLOROFORM	.0059	mg/kg	U	N Y	U					CQ3Q0S	15:11			
			CHLOROMETHANE	.012	mg/kg	U	N Y	U						CQ3Q0S	15:11		
			CIS-1,2-DICHLOROETHENE	.0059	mg/kg	U	N Y	U							CQ3Q0S	15:11	
			CIS-1,3-DICHLOROPROPENE	.0059	mg/kg	U	N Y	U								CQ3Q0S	15:11
			DIBROMOMETHANE	.0059	mg/kg	U	N Y	U								CQ3Q0S	15:11
			DICHLORODIFLUOROMETHANE	.012	mg/kg	U	N Y	UJ				05B				CQ3Q0S	15:11
			ETHYLBENZENE	.0059	mg/kg	U	N Y	U								CQ3Q0S	15:11
			HEXACHLOROBUTADIENE	.0059	mg/kg	U	N Y	UJ				10A				CQ3Q0S	15:11
			ISOPROPYLBENZENE	.0059	mg/kg	U	N Y	U								CQ3Q0S	15:11
			M-XYLENE & P-XYLENE	.0059	mg/kg	U	N Y	U								CQ3Q0S	15:11
			METHYLENE CHLORIDE	.003	mg/kg	J B	N Y	U			B	06A 06C 15				CQ3Q0S	15:11
			N-BUTYLBENZENE	.0059	mg/kg	U	N Y	UJ			UJ	10A				CQ3Q0S	15:11
			N-PROPYLBENZENE	.0059	mg/kg	U	N Y	UJ			UJ	10A				CQ3Q0S	15:11
			NAPHTHALENE	.0059	mg/kg	U	N Y	UJ			UJ	04B 10A				CQ3Q0S	15:11
			O-XYLENE	.0059	mg/kg	U	N Y	U			U					CQ3Q0S	15:11
			P-ISOPROPYLTOLUENE	.0059	mg/kg	U	N Y	UJ			UJ	10A				CQ3Q0S	15:11
			SEC-BUTYLBENZENE	.0059	mg/kg	U	N Y	UJ			UJ	10A				CQ3Q0S	15:11
			STYRENE	.0059	mg/kg	U	N Y	U			U					CQ3Q0S	15:11
			TERT-BUTYLBENZENE	.0059	mg/kg	U	N Y	UJ			UJ	10A				CQ3Q0S	15:11
			TETRACHLOROETHENE	.0059	mg/kg	U	N Y	U			U					CQ3Q0S	15:11
			TOLUENE	.0059	mg/kg	U	N Y	U			U					CQ3Q0S	15:11
			TRANS-1,2-DICHLOROETHENE	.0059	mg/kg	U	N Y	U			U					CQ3Q0S	15:11
			TRANS-1,3-DICHLOROPROPENE	.0059	mg/kg	U	N Y	U			U					CQ3Q0S	15:11
			TRICHLOROETHENE	.0059	mg/kg	U	N Y	U			U					CQ3Q0S	15:11
			TRICHLOROFUOROMETHANE	.012	mg/kg	U	N Y	U			U					CQ3Q0S	15:11
			VINYL CHLORIDE	.012	mg/kg	U	N Y	U			U					CQ3Q0S	15:11
			1,2,4-TRICHLOROBENZENE	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28
1,2-DICHLOROBENZENE	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
1,3-DICHLOROBENZENE	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
1,4-DICHLOROBENZENE	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2,2'-OXYBIS(1-CHLOROPROPANE)	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2,4,5-TRICHLOROPHENOL	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2,4,6-TRICHLOROPHENOL	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2,4-DICHLOROPHENOL	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2,4-DIMETHYLPHENOL	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2,4-DINITROPHENOL	1.9	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2,4-DINITROTOLUENE	.39	mg/kg	U	N Y	UJ			UJ	08A 08B				CQ3Q0S	12:28			
2,6-DINITROTOLUENE	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2-CHLORONAPHTHALENE	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2-CHLOROPHENOL	.39	mg/kg	U	N Y	UJ			UJ	08B				CQ3Q0S	12:28			
2-METHYLNAPHTHALENE	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2-METHYLPHENOL	.39	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			
2-NITROANILINE	1.9	mg/kg	U	N Y	U			U					CQ3Q0S	12:28			

# Validation Qualif Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	FIT REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
									1	2	3	4		
KD0006	SW8270 SW3550	N 0 1	2-NITROPHENOL	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			3,3-DICHLOROBENZIDINE	1.9	mg/kg	U	N Y	U					CQ3Q0S	12:28
			3-NITROANILINE	1.9	mg/kg	U	N Y	U					CQ3Q0S	12:28
			4,6-DINITRO-2-METHYLPHENOL	1.9	mg/kg	U	N Y	U					CQ3Q0S	12:28
			4-BROMOPHENYL PHENYL ETHER	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			4-CHLORO-3-METHYLPHENOL	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			4-CHLOROANILINE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			4-CHLOROPHENYL PHENYL ETHER	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			4-METHYLPHENOL	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			4-NITROANILINE	1.9	mg/kg	U	N Y	U					CQ3Q0S	12:28
			4-NITROPHENOL	1.9	mg/kg	U	N Y	U					CQ3Q0S	12:28
			ACENAPHTHENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			ACENAPHTHYLENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			ANTHRACENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			BENZ(A)ANTHRACENE	.06	mg/kg	U	N Y	U					CQ3Q0S	12:28
			BENZO(A)PYRENE	.065	mg/kg	JB	Y Y	B	06A 15 17				CQ3Q0S	12:28
			BENZO(B)FLUORANTHENE	.1	mg/kg	J	Y Y	J	15 17				CQ3Q0S	12:28
			BENZO(GH)PERYLENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			BENZO(K)FLUORANTHENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			BIS(2-CHLOROETHOXYMETHANE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			BIS(2-CHLOROETHYL) ETHER	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			BIS(2-ETHYLHEXYL) PHTHALATE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			BUTYL BENZYL PHTHALATE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			CARBAZOLE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			CHRYSENE	.092	mg/kg	JB	Y Y	B	06A 15 17				CQ3Q0S	12:28
			DI-N-BUTYL PHTHALATE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			DI-N-OCTYL PHTHALATE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			DIBENZO(A,H)ANTHRACENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			DIBENZOFURAN	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			DIETHYL PHTHALATE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			DIMETHYL PHTHALATE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			FLUORANTHENE	.14	mg/kg	J	Y Y	J	15 17				CQ3Q0S	12:28
			FLUORENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			HEXACHLOROBENZENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			HEXACHLOROBUTADIENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			HEXACHLOROCYCLOPENTADIENE	1.9	mg/kg	U	N Y	U					CQ3Q0S	12:28
			HEXACHLOROETHANE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			INDENO(1,2,3-CD)PYRENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			ISOPHORONE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			N-NITROSODI-N-PROPYLAMINE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			N-NITROSODIPHENYLAMINE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			NAPHTHALENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			NITROBENZENE	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28
			PENTACHLOROPHENOL	.39	mg/kg	U	N Y	U					CQ3Q0S	12:28

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 22 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hlit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
									1	2	3	4			
KD0006	SW8270 SW3550	N 0 1	PHENANTHRENE	.053	mg/kg	J	Y	J	15	17			CQ3Q0S	12:28	
			PHENOL	.39	mg/kg	U	N	UJ	08B					CQ3Q0S	12:28
			PYRENE	.11	mg/kg	J	Y	J	Y	15	17			CQ3Q0S	12:28
KD0008	D2216 SW6010 SW3050	N 0 1	PERCENT MOISTURE				Y	P					CQ3Q1S	00:00	
			ALUMINUM	11100	mg/kg		Y	P						CQ3Q1S	00:44
			ANTIMONY	7.2	mg/kg	U	N	UJ	08A					CQ3Q1S	00:44
			ARSENIC	8.0	mg/kg		Y	P						CQ3Q1S	00:44
			BARIUM	18.6	mg/kg	B	Y	P	15					CQ3Q1S	00:44
			BERYLLIUM	0.94	mg/kg		Y	P						CQ3Q1S	00:44
			CADMIUM	0.60	mg/kg	U	N	U						CQ3Q1S	00:44
			CALCIUM	89.9	mg/kg	B	Y	P	15					CQ3Q1S	00:44
			CHROMIUM	21.5	mg/kg		Y	P	08A					CQ3Q1S	00:44
			COBALT	1.3	mg/kg	B	Y	P	15					CQ3Q1S	00:44
			COPPER	35.7	mg/kg		Y	P						CQ3Q1S	00:44
			IRON	42200	mg/kg		Y	P						CQ3Q1S	00:44
			LEAD	20.9	mg/kg		Y	P						CQ3Q1S	00:44
			MAGNESIUM	70.5	mg/kg	B	Y	P	08A 15					CQ3Q1S	00:44
			MANGANESE	9.0	mg/kg		Y	P	08A					CQ3Q1S	00:44
			NICKEL	5.3	mg/kg		Y	P						CQ3Q1S	00:44
			POTASSIUM	430	mg/kg	B	Y	P	15					CQ3Q1S	00:44
SELENIUM	2.1	mg/kg		Y	P						CQ3Q1S	00:44			
SILVER	1.2	mg/kg	U	N	U						CQ3Q1S	00:44			
SODIUM	74.5	mg/kg	B	Y	F	06A 06B 06C 15					CQ3Q1S	00:44			
THALLIUM	1.2	mg/kg	U	N	U						CQ3Q1S	00:44			
VANADIUM	32.8	mg/kg		Y	P						CQ3Q1S	00:44			
ZINC	30.5	mg/kg		Y	P						CQ3Q1S	15:39			
SW7471	TOTAL	N 0 1	MERCURY	0.017	mg/kg	B	Y	P	15			CQ3Q1S	14:47		
SW8260	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	.006	mg/kg	U	N	U					CQ3Q1S	15:36	
			1,1,1-TRICHLOROETHANE	.006	mg/kg	U	N	U					CQ3Q1S	15:36	
			1,1,2,2-TETRACHLOROETHANE	.006	mg/kg	U	N	U					CQ3Q1S	15:36	
			1,1,2-TRICHLOROETHANE	.006	mg/kg	U	N	U					CQ3Q1S	15:36	
			1,1-DICHLOROETHANE	.006	mg/kg	U	N	U					CQ3Q1S	15:36	
			1,1-DICHLOROETHENE	.006	mg/kg	U	N	U					CQ3Q1S	15:36	
			1,1-DICHLOROPROPENE	.006	mg/kg	U	N	U					CQ3Q1S	15:36	
			1,2,3-TRICHLOROPROPANE	.006	mg/kg	U	N	U	04B					CQ3Q1S	15:36
			1,2,3-TRICHLOROBENZENE	.006	mg/kg	U	N	U						CQ3Q1S	15:36
			1,2,4-TRICHLOROBENZENE	.006	mg/kg	U	N	U	04B					CQ3Q1S	15:36
			1,2,4-TRIMETHYLBENZENE	.006	mg/kg	U	N	U						CQ3Q1S	15:36
			1,2-DIBROMO-3-CHLOROPROPANE	.012	mg/kg	U	N	U	04A 05A					CQ3Q1S	15:36
			1,2-DIBROMOETHANE	.006	mg/kg	U	N	U						CQ3Q1S	15:36
			1,2-DICHLOROBENZENE	.006	mg/kg	U	N	U						CQ3Q1S	15:36
1,2-DICHLOROETHANE	.006	mg/kg	U	N	U						CQ3Q1S	15:36			
1,2-DICHLOROPROPANE	.006	mg/kg	U	N	U						CQ3Q1S	15:36			

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:				
									1	2	3	4						
KD0008	SW8260 SW5030	N 0 1	1,3,5-TRIMETHYLBENZENE	.006	mg/kg	U	N	Y	U	U				CQ3QIS	15:36			
			1,3-DICHLOROBENZENE	.006	mg/kg	U	N	Y	U	U	U				CQ3QIS	15:36		
			1,3-DICHLOROPROPANE	.006	mg/kg	U	N	Y	U	U	U				CQ3QIS	15:36		
			1,4-DICHLOROBENZENE	.006	mg/kg	U	N	Y	U	U	U				CQ3QIS	15:36		
			2,2-DICHLOROPROPANE	.006	mg/kg	U	N	Y	U	U	U				CQ3QIS	15:36		
			2-BUTANONE	.024	mg/kg	U	N	Y	U	R			04A	05A		CQ3QIS	15:36	
			2-CHLOROTOLUENE	.006	mg/kg	U	N	Y	U	U	U					CQ3QIS	15:36	
			2-HEXANONE	.024	mg/kg	U	N	Y	U	U	U					CQ3QIS	15:36	
			4-CHLOROTOLUENE	.006	mg/kg	U	N	Y	U	U	U					CQ3QIS	15:36	
			4-METHYL-2-PENTANONE	.024	mg/kg	U	N	Y	U	U	U					CQ3QIS	15:36	
			ACETONE	.019	mg/kg	JB	Y	Y	F	B			04	05A	06A	15	CQ3QIS	15:36
			BENZENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			BROMOBENZENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			BROMOCHLOROMETHANE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			BROMODICHLOROMETHANE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			BROMOFORM	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			BROMOMETHANE	.0024	mg/kg	JB	Y	Y	F	B			04B	05B	06A	15	CQ3QIS	15:36
			CARBON DISULFIDE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			CARBON TETRACHLORIDE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			CHLOROBENZENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			CHLORODIBROMOMETHANE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			CHLOROETHANE	.012	mg/kg	U	N	Y	U	U	U			05B			CQ3QIS	15:36
			CHLOROFORM	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			CHLOROMETHANE	.012	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			CIS-1,2-DICHLOROETHENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			CIS-1,3-DICHLOROPROPENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
			DIBROMOMETHANE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36
DICHLORODIFLUOROMETHANE	.012	mg/kg	U	N	Y	U	U	U			05B			CQ3QIS	15:36			
ETHYLBENZENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
HEXACHLOROBUTADIENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
ISOPROPYLBENZENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
M-XYLENE & P-XYLENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
METHYLENE CHLORIDE	.0032	mg/kg	JB	Y	Y	F	B			06A	06C	15		CQ3QIS	15:36			
N-BUTYLBENZENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
N-PROPYLBENZENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
NAPHTHALENE	.006	mg/kg	U	N	Y	U	U	U			04B			CQ3QIS	15:36			
O-XYLENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
P-ISOPROPYLTOLUENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
SEC-BUTYLBENZENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
STYRENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
TERT-BUTYLBENZENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
TETRACHLOROETHENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
TOLUENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			
TRANS-1,2-DICHLOROETHENE	.006	mg/kg	U	N	Y	U	U	U						CQ3QIS	15:36			

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:		
													1	2	3	4				
KD0008	SW8260	SW5030	N	0	1	TRANS-1,3-DICHLOROPROPENE	.006	mg/kg	U	N	Y	U	U					CQ3QIS	15:36	
						TRICHLOROETHENE	.006	mg/kg	U	N	Y	U	U						CQ3QIS	15:36
						TRICHLOROFLUOROMETHANE	.012	mg/kg	U	N	Y	U	U						CQ3QIS	15:36
						VINYL CHLORIDE	.012	mg/kg	U	N	Y	U	U						CQ3QIS	15:36
	SW8270	SW3550	N	0	1	1,2,4-TRICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						1,2-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						1,3-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						1,4-DICHLOROBENZENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2,2'-OXYBIS(1-CHLOROPROPANE)	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2,4,5-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2,4,6-TRICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2,4-DICHLOROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2,4-DIMETHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2,4-DINITROPHENOL	1.9	mg/kg	U	N	Y	U	UJ			05B			CQ3QIS	18:31
						2,4-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	UJ			08A	08B		CQ3QIS	18:31
						2,6-DINITROTOLUENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2-CHLORONAPHTHALENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2-CHLOROPHENOL	.39	mg/kg	U	N	Y	U	UJ			08B			CQ3QIS	18:31
						2-METHYLNAPHTHALENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2-NITROANILINE	1.9	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						2-NITROPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						3,3'-DICHLOROBENZIDINE	1.9	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						3-NITROANILINE	1.9	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						4,6-DINITRO-2-METHYLPHENOL	1.9	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						4-BROMOPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						4-CHLORO-3-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						4-CHLOROANILINE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						4-CHLOROPHENYL PHENYL ETHER	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						4-METHYLPHENOL	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						4-NITROANILINE	1.9	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						4-NITROPHENOL	1.9	mg/kg	U	N	Y	U	UJ			05B			CQ3QIS	18:31
						ACENAPHTHENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						ACENAPHTHYLENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						ANTHRACENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						BENZ(A)ANTHRACENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						BENZO(A)PYRENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						BENZO(B)FLUORANTHENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						BENZO(GH)PERYLENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						BENZO(K)FLUORANTHENE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						BIS(2-CHLOROETHOXY)METHANE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						BIS(2-CHLOROETHYL) ETHER	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31
						BIS(2-ETHYLHEXYL) PHTHALATE	.39	mg/kg	U	N	Y	U	U						CQ3QIS	18:31

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX DII:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:			
									1	2	3	4					
KD0008	SW8270 SW3550	N 0 1	BUTYL BENZYL PHTHALATE	.39	mg/kg	U	N	Y	U					CO3Q1S	18:31		
			CARBAZOLE	.39	mg/kg	U	N	Y	U						CO3Q1S	18:31	
			CHRYSENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			DI-N-BUTYL PHTHALATE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			DI-N-OCTYL PHTHALATE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			DIBENZ(A,H)ANTHRACENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			DIBENZOFURAN	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			DIETHYL PHTHALATE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			DIMETHYL PHTHALATE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			FLUORANTHENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			FLUORENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			HEXACHLOROBENZENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			HEXACHLOROBUTADIENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			HEXACHLOROCYCLOPENTADIENE	1.9	mg/kg	U	N	Y	U				05B			CO3Q1S	18:31
			HEXACHLOROETHANE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			INDENO(1,2,3-CD)PYRENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			ISOPHORONE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			N-NITROSODI-N-PROPYLAMINE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			N-NITROSODIPHENYLAMINE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
			NAPHTHALENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31
NITROBENZENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31			
PENTACHLOROPHENOL	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31			
PHENANTHRENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31			
PHENOL	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31			
PYRENE	.39	mg/kg	U	N	Y	U							CO3Q1S	18:31			
KD3001	SW6010 SW3005	N 0 1	ALUMINIUM	1.63	mg/L	U	Y	Y	P	J				CR0R9W	18:27		
			ANTIMONY	.06	mg/L	U	N	Y	U	U					CR0R9W	18:27	
			BARIUM	.0651	mg/L	B	Y	Y	P	J			15		CR0R9W	18:27	
			BERYLLIUM	.005	mg/L	U	N	Y	U	U					CR0R9W	18:27	
			CADMIUM	.005	mg/L	U	N	Y	U	U					CR0R9W	18:27	
			CALCIUM	1.93	mg/L	B	Y	Y	P	J			15		CR0R9W	18:27	
			CHROMIUM	.01	mg/L	U	N	Y	U	U					CR0R9W	18:27	
			COBALT	.0107	mg/L	B	Y	Y	P	J			15		CR0R9W	18:27	
			COPPER	.025	mg/L	U	N	Y	U	U					CR0R9W	18:27	
			IRON	1.72	mg/L	U	Y	Y	P	J			08A		CR0R9W	18:27	
			MAGNESIUM	3.49	mg/L	B	Y	Y	P	J			15		CR0R9W	18:27	
			MANGANESE	.0916	mg/L	U	Y	Y	P	P					CR0R9W	18:27	
KD3001	SW6010 SW3005	N 0 1	NICKEL	.0202	mg/L	B	Y	Y	P	J			15	CR0R9W	18:27		
			POTASSIUM	.824	mg/L	B	Y	Y	P	J		15		CR0R9W	18:27		
			SILVER	.01	mg/L	U	N	Y	U	U					CR0R9W	18:27	
			SODIUM	7.01	mg/L	U	N	Y	U	U					CR0R9W	18:27	
			VANADIUM	.05	mg/L	U	N	Y	U	U					CR0R9W	18:27	
			ZINC	.0484	mg/L	U	Y	Y	P	P					CR0R9W	18:27	

# Validation Qualifier Data Entry Verification

Fort McClellan

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
									1	2	3	4		
KD3001	SW6010 TOTREC	N 0 1	ARSENIC	.01	mg/L	U	N Y	U					CR0R9W	18:27
			LEAD	.003	mg/L	U	N Y	U					CR0R9W	18:27
			SELENIUM	.005	mg/L	U	N Y	U					CR0R9W	18:27
			THALLIUM	.01	mg/L	U	N Y	U					CR0R9W	18:27
	SW7470 TOTAL	N 0 1	MERCURY	.0002	mg/L	U	N Y	U					CR0R9W	17:54
	SW8260 SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,1,1-TRICHLOROETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,1,2,2-TETRACHLOROETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,1,2-TRICHLOROETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,1-DICHLOROETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,1-DICHLOROETHENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,1-DICHLOROPROPENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,2,3-TRICHLOROBENZENE	.001	mg/L	U	N Y	U		05B			CR0R9W	01:11
			1,2,3-TRICHLOROPROPANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,2,4-TRICHLOROBENZENE	.001	mg/L	U	N Y	U		05B			CR0R9W	01:11
			1,2,4-TRIMETHYLBENZENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,2-DIBROMO-3-CHLOROPROPANE	.002	mg/L	U	N Y	U	R	04A 05A 05B			CR0R9W	01:11
			1,2-DIBROMOETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,2-DICHLOROBENZENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,2-DICHLOROETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,2-DICHLOROPROPANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,3,5-TRIMETHYLBENZENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,3-DICHLOROBENZENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,3-DICHLOROPROPANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			1,4-DICHLOROBENZENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			2,2-DICHLOROPROPANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			2-BUTANONE	.005	mg/L	U	N Y	U	R	04A 05A			CR0R9W	01:11
			2-CHLOROTOLUENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			2-HEXANONE	.005	mg/L	U	N Y	U	UJ	05B			CR0R9W	01:11
			4-CHLOROTOLUENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			4-METHYL-2-PENTANONE	.005	mg/L	U	N Y	U					CR0R9W	01:11
			ACETONE	.01	mg/L	U	N Y	U	R	04A 05A			CR0R9W	01:11
			BENZENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			BROMOBENZENE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			BROMOCHLOROMETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			BROMODICHLOROMETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			BROMOFORM	.001	mg/L	U	N Y	U					CR0R9W	01:11
			BROMOMETHANE	.002	mg/L	U	N Y	U					CR0R9W	01:11
			CARBON DISULFIDE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			CARBON TETRACHLORIDE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			CHLOROBENZENE	.0008	mg/L	J	Y Y	P	J	15			CR0R9W	01:11
			CHLORODIBROMOMETHANE	.001	mg/L	U	N Y	U					CR0R9W	01:11
			CHLOROETHANE	.002	mg/L	U	N Y	U					CR0R9W	01:11

# Validation Qualification Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:		
													1	2	3	4				
KD3001	SW8260 SW5030	N	0	1	CHLOROFORM	.001	mg/L	U	N	Y	U	U				CR0R9W	01:11			
					CHLOROMETHANE	.002	mg/L	U	N	Y	U	U							CR0R9W	01:11
					CIS-1,2-DICHLOROETHENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					CIS-1,3-DICHLOROPROPENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					DIBROMOMETHANE	.001	mg/L	U	N	Y	U	R						04A 05A	CR0R9W	01:11
					DICHLORODIFLUOROMETHANE	.002	mg/L	U	N	Y	U	U							CR0R9W	01:11
					ETHYLBENZENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					HEXACHLOROBUTADIENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					ISOPROPYLBENZENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					M-XYLENE & P-XYLENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					METHYLENE CHLORIDE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					N-BUTYLBENZENE	.001	mg/L	U	N	Y	U	U						04B	CR0R9W	01:11
					N-PROPYLBENZENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					NAPHTHALENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					O-XYLENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					P-ISOPROPYLTOLUENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					SEC-BUTYLBENZENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					STYRENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					TERT-BUTYLBENZENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					TETRACHLOROETHENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					TOLUENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					TRANS-1,2-DICHLOROETHENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					TRANS-1,3-DICHLOROPROPENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					TRICHLOROETHENE	.001	mg/L	U	N	Y	U	U							CR0R9W	01:11
					TRICHLOROFUOROMETHANE	.002	mg/L	U	N	Y	U	U							CR0R9W	01:11
					VINYL CHLORIDE	.002	mg/L	U	N	Y	U	U							CR0R9W	01:11
					1,2,4-TRICHLOROBENZENE	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11
1,2-DICHLOROBENZENE	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
1,3-DICHLOROBENZENE	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
1,4-DICHLOROBENZENE	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2,2'-OXYBIS(1-CHLOROPROPANE)	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2,4,5-TRICHLOROPHENOL	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2,4,6-TRICHLOROPHENOL	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2,4-DICHLOROPHENOL	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2,4-DIMETHYLPHENOL	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2,4-DINITROPHENOL	.05	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2,4-DINITROTOLUENE	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2,6-DINITROTOLUENE	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2-CHLORONAPHTHALENE	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2-CHLOROPHENOL	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2-METHYLNAPHTHALENE	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2-METHYLPHENOL	.01	mg/L	U	N	Y	U	U							CR0R9W	16:11					
2-NITROANILINE	.05	mg/L	U	N	Y	U	U							CR0R9W	16:11					

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 28 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
									1	2	3	4		
KD3001	SW8270 SW3520	N 0 1	2-NITROPHENOL	.01	mg/L	U	N	U					CR0R9W	16:11
			3,3'-DICHLOROBENZIDINE	.05	mg/L	U	N	U					CR0R9W	16:11
			3-NITROANILINE	.05	mg/L	U	N	U					CR0R9W	16:11
			4,6-DINITRO-2-METHYLPHENOL	.05	mg/L	U	N	U					CR0R9W	16:11
			4-BROMOPHENYL PHENYL ETHER	.01	mg/L	U	N	U					CR0R9W	16:11
			4-CHLORO-3-METHYLPHENOL	.01	mg/L	U	N	U					CR0R9W	16:11
			4-CHLOROANILINE	.01	mg/L	U	N	U					CR0R9W	16:11
			4-CHLOROPHENYL PHENYL ETHER	.01	mg/L	U	N	U					CR0R9W	16:11
			4-METHYLPHENOL	.01	mg/L	U	N	U					CR0R9W	16:11
			4-NITROANILINE	.05	mg/L	U	N	U					CR0R9W	16:11
			4-NITROPHENOL	.05	mg/L	U	N	U					CR0R9W	16:11
			ACENAPHTHENE	.01	mg/L	U	N	U	08B				CR0R9W	16:11
			ACENAPHTHYLENE	.01	mg/L	U	N	U					CR0R9W	16:11
			ANTHRACENE	.01	mg/L	U	N	U					CR0R9W	16:11
			BENZO(A)ANTHRACENE	.01	mg/L	U	N	U					CR0R9W	16:11
			BENZO(A)PYRENE	.01	mg/L	U	N	U					CR0R9W	16:11
			BENZO(B)FLUORANTHENE	.01	mg/L	U	N	U					CR0R9W	16:11
			BENZO(GH)PERYLENE	.01	mg/L	U	N	U					CR0R9W	16:11
			BENZO(K)FLUORANTHENE	.01	mg/L	U	N	U					CR0R9W	16:11
			BIS(2-CHLOROETHOXY)METHANE	.01	mg/L	U	N	U					CR0R9W	16:11
			BIS(2-CHLOROETHYL) ETHER	.01	mg/L	U	N	U					CR0R9W	16:11
			BIS(2-ETHYLHEXYL) PHTHALATE	.01	mg/L	U	N	U					CR0R9W	16:11
			BUTYL BENZYL PHTHALATE	.01	mg/L	U	N	U					CR0R9W	16:11
			CARBAZOLE	.01	mg/L	U	N	U					CR0R9W	16:11
			CHRYSENE	.01	mg/L	U	N	U					CR0R9W	16:11
			DI-N-BUTYL PHTHALATE	.01	mg/L	U	N	U					CR0R9W	16:11
			DI-N-OCTYL PHTHALATE	.01	mg/L	U	N	U					CR0R9W	16:11
			DIBENZ(A,H)ANTHRACENE	.01	mg/L	U	N	U					CR0R9W	16:11
			DIBENZOFURAN	.01	mg/L	U	N	U					CR0R9W	16:11
			DIETHYL PHTHALATE	.01	mg/L	U	N	U					CR0R9W	16:11
			DIMETHYL PHTHALATE	.01	mg/L	U	N	U					CR0R9W	16:11
			FLUORANTHENE	.01	mg/L	U	N	U					CR0R9W	16:11
			FLUORENE	.01	mg/L	U	N	U					CR0R9W	16:11
			HEXACHLOROBENZENE	.01	mg/L	U	N	U					CR0R9W	16:11
			HEXACHLOROBUTADIENE	.01	mg/L	U	N	U					CR0R9W	16:11
			HEXACHLOROCYCLOPENTADIENE	.05	mg/L	U	N	U					CR0R9W	16:11
			HEXACHLOROETHANE	.01	mg/L	U	N	U					CR0R9W	16:11
			INDENO(1,2,3-CD)PYRENE	.01	mg/L	U	N	U					CR0R9W	16:11
			ISOPHORONE	.01	mg/L	U	N	U					CR0R9W	16:11
			N-NITROSODI-N-PROPYLAMINE	.01	mg/L	U	N	U	11B				CR0R9W	16:11
			N-NITROSODIPHENYLAMINE	.01	mg/L	U	N	U					CR0R9W	16:11
			NAPHTHALENE	.01	mg/L	U	N	U					CR0R9W	16:11
			NITROBENZENE	.01	mg/L	U	N	U					CR0R9W	16:11
			PENTACHLOROPHENOL	.05	mg/L	U	N	U					CR0R9W	16:11

# Validation Qualification Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
									1	2	3	4			
KD3001	SW8270 SW3520	N 0 1	PHENANTHRENE	.01	mg/L	U	N	Y	U	U			CR0R9W	16:11	
			PHENOL	.01	mg/L	U	N	Y	U	U				CR0R9W	16:11
			PYRENE	.01	mg/L	U	N	Y	U	U		08B		CR0R9W	16:11
KD3002	SW6010 SW3005	N 0 1	ALUMINUM	2.01	mg/L	U	Y	Y	P	J			CQWHEW	18:23	
			ANTIMONY	.06	mg/L	U	N	Y	U	U				CQWHEW	18:23
			BARIIUM	.0643	mg/L	B	Y	Y	P	J		15		CQWHEW	18:23
			BERYLLIUM	.005	mg/L	U	N	Y	U	U				CQWHEW	18:23
			CADMIUM	.005	mg/L	U	N	Y	U	U				CQWHEW	18:23
			CALCIUM	2.93	mg/L	B	Y	Y	P	J		15		CQWHEW	18:23
			CHROMIUM	.01	mg/L	U	N	Y	U	U				CQWHEW	18:23
			COBALT	.0067	mg/L	B	Y	Y	P	J		15		CQWHEW	18:23
			COPPER	.025	mg/L	U	N	Y	U	U				CQWHEW	18:23
			IRON	2.48	mg/L	U	N	Y	P	J		08A		CQWHEW	18:23
			MAGNESIUM	4.23	mg/L	B	Y	Y	P	J		15		CQWHEW	18:23
			MANGANESE	.149	mg/L	U	Y	Y	P					CQWHEW	18:23
			NICKEL	.0198	mg/L	B	Y	Y	P	J		15		CQWHEW	18:23
			POTASSIUM	.884	mg/L	B	Y	Y	P	J		15		CQWHEW	18:23
			SILVER	.01	mg/L	U	N	Y	U	U				CQWHEW	18:23
SODIUM	9.15	mg/L	U	Y	Y	P					CQWHEW	18:23			
VANADIUM	.05	mg/L	U	N	Y	U	U				CQWHEW	18:23			
ZINC	.0256	mg/L	U	Y	Y	P					CQWHEW	18:23			
SW6010	TOTREC	N 0 1	ARSENIC	.01	mg/L	U	N	Y	U	U			CQWHEW	18:23	
			LEAD	.003	mg/L	U	N	Y	U	U			CQWHEW	18:23	
SW7470	TOTAL	N 0 1	SELENIUM	.005	mg/L	U	N	Y	U	U			CQWHEW	18:23	
			THALLIUM	.01	mg/L	U	N	Y	U	U			CQWHEW	18:23	
SW8260	SW5030	N 0 1	MERCURY	.0002	mg/L	U	N	Y	U	U			CQWHEW	17:52	
			1,1,1,2-TETRACHLOROETHANE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,1,1-TRICHLOROETHANE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,1,2,2-TETRACHLOROETHANE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,1,2-TRICHLOROETHANE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,1-DICHLOROETHANE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,1-DICHLOROETHENE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,1-DICHLOROPROPENE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,2,3-TRICHLOROBENZENE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,2,3-TRICHLOROPROPANE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,2,4-TRICHLOROBENZENE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,2,4-TRIMETHYLBENZENE	.001	mg/L	U	N	Y	U	U			CQWHEW	16:47	
			1,2-DIBROMO-3-CHLOROPROPANE	.002	mg/L	U	N	Y	U	U		04A 05A 05B		CQWHEW	16:47
			1,2-DIBROMOETHANE	.001	mg/L	U	N	Y	U	U				CQWHEW	16:47
			1,2-DICHLOROBENZENE	.001	mg/L	U	N	Y	U	U				CQWHEW	16:47
1,2-DICHLOROETHANE	.001	mg/L	U	N	Y	U	U				CQWHEW	16:47			
1,2-DICHLOROPROPANE	.001	mg/L	U	N	Y	U	U				CQWHEW	16:47			
1,3,5-TRIMETHYLBENZENE	.001	mg/L	U	N	Y	U	U				CQWHEW	16:47			

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 30 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
									1	2	3	4		
KD3002	SW8260 SW5030	N 0 1	1,3-DICHLOROBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			1,3-DICHLOROPROPANE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			1,4-DICHLOROBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			2,2-DICHLOROPROPANE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			2-BUTANONE	.005	mg/L	U	N Y U	R		04A	05A		CQWHEW	16:47
			2-CHLOROTOLUENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			2-HEXANONE	.005	mg/L	U	N Y U	U					CQWHEW	16:47
			4-CHLOROTOLUENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			4-METHYL-2-PENTANONE	.005	mg/L	U	N Y U	U					CQWHEW	16:47
			ACETONE	.01	mg/L	U	N Y U	R		04A	05A		CQWHEW	16:47
			BENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			BROMOBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			BROMOCHLOROMETHANE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			BROMODICHLOROMETHANE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			BROMOFORM	.001	mg/L	U	N Y U	UJ		05B			CQWHEW	16:47
			BROMOMETHANE	.002	mg/L	U	N Y U	U					CQWHEW	16:47
			CARBON DISULFIDE	.001	mg/L	U	N Y U	UJ		05B			CQWHEW	16:47
			CARBON TETRACHLORIDE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			CHLOROBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			CHLORODIBROMOMETHANE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			CHLOROETHANE	.002	mg/L	U	N Y U	U					CQWHEW	16:47
			CHLOROFORM	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			CHLOROMETHANE	.002	mg/L	U	N Y U	U					CQWHEW	16:47
			CIS-1,2-DICHLOROETHENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			CIS-1,3-DICHLOROPROPENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			DIBROMOMETHANE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			DICHLORODIFLUOROMETHANE	.002	mg/L	U	N Y U	U					CQWHEW	16:47
			ETHYLBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			HEXACHLOROBUTADIENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			ISOPROPYLBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			M-XYLENE & P-XYLENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			METHYLENE CHLORIDE	.001	mg/L	U	N Y U	UJ		04B			CQWHEW	16:47
			N-BUTYLBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			N-PROPYLBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			NAPHTHALENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			O-XYLENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			P-ISOPROPYLTOLUENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			SEC-BUTYLBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			STYRENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			TERT-BUTYLBENZENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			TETRACHLOROETHENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			TOLUENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			TRANS-1,2-DICHLOROETHENE	.001	mg/L	U	N Y U	U					CQWHEW	16:47
			TRANS-1,3-DICHLOROPROPENE	.001	mg/L	U	N Y U	UJ		05B			CQWHEW	16:47

# Validation Qualification Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Ft REX Dtl:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
									1	2	3	4			
KD3002	SW8260	SW5030	TRICHLOROETHENE	.001	mg/L	U	N	Y	U	U					16:47
			TRICHLOROFLUOROMETHANE	.002	mg/L	U	N	Y	U	U					16:47
			VINYL CHLORIDE	.002	mg/L	U	N	Y	U	U					16:47
	SW8270	SW3520	1,2,4-TRICHLOROBENZENE	.01	mg/L	U	N	Y	U	U					14:32
			1,2-DICHLOROBENZENE	.01	mg/L	U	N	Y	U	U					14:32
			1,3-DICHLOROBENZENE	.01	mg/L	U	N	Y	U	U					14:32
			1,4-DICHLOROBENZENE	.01	mg/L	U	N	Y	U	U					14:32
			2,2'-OXYBIS(1-CHLOROPROPANE)	.01	mg/L	U	N	Y	U	U					14:32
			2,4,5-TRICHLOROPHENOL	.01	mg/L	U	N	Y	U	U					14:32
			2,4,6-TRICHLOROPHENOL	.01	mg/L	U	N	Y	U	U					14:32
			2,4-DICHLOROPHENOL	.01	mg/L	U	N	Y	U	U					14:32
			2,4-DIMETHYLPHENOL	.01	mg/L	U	N	Y	U	U					14:32
			2,4-DINITROPHENOL	.05	mg/L	U	N	Y	U	U					14:32
			2,4-DINITROTOLUENE	.01	mg/L	U	N	Y	U	U					14:32
			2,6-DINITROTOLUENE	.01	mg/L	U	N	Y	U	U					14:32
			2-CHLORONAPHTHALENE	.01	mg/L	U	N	Y	U	U					14:32
			2-CHLOROPHENOL	.01	mg/L	U	N	Y	U	U					14:32
			2-METHYLNAPHTHALENE	.01	mg/L	U	N	Y	U	U					14:32
			2-METHYLPHENOL	.01	mg/L	U	N	Y	U	U					14:32
			2-NITROANILINE	.05	mg/L	U	N	Y	U	U					14:32
			2-NITROPHENOL	.01	mg/L	U	N	Y	U	U					14:32
			3,3'-DICHLOROBENZIDINE	.05	mg/L	U	N	Y	U	U					14:32
			3-NITROANILINE	.05	mg/L	U	N	Y	U	U					14:32
			4,6-DINITRO-2-METHYLPHENOL	.05	mg/L	U	N	Y	U	U					14:32
			4-BROMOPHENYL PHENYL ETHER	.01	mg/L	U	N	Y	U	U					14:32
			4-CHLORO-3-METHYLPHENOL	.01	mg/L	U	N	Y	U	U					14:32
			4-CHLOROANILINE	.01	mg/L	U	N	Y	U	U					14:32
			4-CHLOROPHENYL PHENYL ETHER	.01	mg/L	U	N	Y	U	U					14:32
			4-METHYLPHENOL	.01	mg/L	U	N	Y	U	U					14:32
			4-NITROANILINE	.05	mg/L	U	N	Y	U	U					14:32
			4-NITROPHENOL	.05	mg/L	U	N	Y	U	U					14:32
			ACENAPHTHENE	.01	mg/L	U	N	Y	U	U					14:32
			ACENAPHTHYLENE	.01	mg/L	U	N	Y	U	U					14:32
			ANTHRACENE	.01	mg/L	U	N	Y	U	U					14:32
			BENZO(A)ANTHRACENE	.01	mg/L	U	N	Y	U	U					14:32
			BENZO(A)PYRENE	.01	mg/L	U	N	Y	U	U					14:32
			BENZO(B)FLUORANTHENE	.01	mg/L	U	N	Y	U	U					14:32
			BENZO(GH)PERYLENE	.01	mg/L	U	N	Y	U	U					14:32
			BENZO(K)FLUORANTHENE	.01	mg/L	U	N	Y	U	U					14:32
			BIS(2-CHLOROETHOXY)METHANE	.01	mg/L	U	N	Y	U	U					14:32
			BIS(2-CHLOROETHYL) ETHER	.01	mg/L	U	N	Y	U	U					14:32
			BIS(2-ETHYLHEXYL) PHTHALATE	.01	mg/L	U	N	Y	U	U					14:32
			BUTYL BENZYL PHTHALATE	.01	mg/L	U	N	Y	U	U					14:32

08B

# Validation Qualifier Data Entry Verification

Run Date: October 11, 2000

Fort McClellan

Page: 32 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:				
									1	2	3	4						
KD3002	SW8270 SW3520	N 0 1	CARBAZOLE	.01	mg/L	U	N	Y	U					CQWHEW	14:32			
			CHRYSENE	.01	mg/L	U	N	Y	U						CQWHEW	14:32		
			DI-N-BUTYL PHTHALATE	.01	mg/L	U	N	Y	U							CQWHEW	14:32	
			DI-N-OCTYL PHTHALATE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			DIBENZ(A,H)ANTHRACENE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			DIBENZOFURAN	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			DIETHYL PHTHALATE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			DIMETHYL PHTHALATE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			FLUORANTHENE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			FLUORENE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			HEXACHLOROBENZENE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			HEXACHLOROBUTADIENE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			HEXACHLOROCYCLOPENTADIENE	.05	mg/L	U	N	Y	U								CQWHEW	14:32
			HEXACHLOROETHANE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			INDENO(1,2,3-CD)PYRENE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			ISOPHORONE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			N-NITROSODI-N-PROPYLAMINE	.01	mg/L	U	N	Y	U				11B				CQWHEW	14:32
			N-NITROSODIPHENYLAMINE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			NAPHTHALENE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
			NITROBENZENE	.01	mg/L	U	N	Y	U								CQWHEW	14:32
PENTACHLOROPHENOL	.05	mg/L	U	N	Y	U								CQWHEW	14:32			
PHENANTHRENE	.01	mg/L	U	N	Y	U								CQWHEW	14:32			
PHENOL	.01	mg/L	U	N	Y	U								CQWHEW	14:32			
PYRENE	.01	mg/L	U	N	Y	U				08B				CQWHEW	14:32			
KD3003	SW6010 SW3005	N 0 1	ALUMINUM	.0632	mg/L	B	Y	Y	F	B				CRORAW	18:52			
			ANTIMONY	.06	mg/L	U	N	Y	U	U			06B 06C 08A 15		CRORAW	18:52		
			BARIUM	.0461	mg/L	B	Y	Y	P	J			15		CRORAW	18:52		
			BERYLLIUM	.005	mg/L	U	N	Y	U	U						CRORAW	18:52	
			CADMIUM	.005	mg/L	U	N	Y	U	U						CRORAW	18:52	
			CALCIUM	1.54	mg/L	B	Y	Y	P	J			15			CRORAW	18:52	
			CHROMIUM	.01	mg/L	U	N	Y	U	U						CRORAW	18:52	
			COBALT	.0073	mg/L	B	Y	Y	P	J			15			CRORAW	18:52	
			COPPER	.025	mg/L	U	N	Y	U	U							CRORAW	18:52
			IRON	.384	mg/L	B	Y	Y	P	J			08A			CRORAW	18:52	
			MAGNESIUM	3.96	mg/L	B	Y	Y	P	J			15			CRORAW	18:52	
			MANGANESE	.0593	mg/L	U	N	Y	U	U							CRORAW	18:52
			NICKEL	.02	mg/L	B	Y	Y	P	J			15			CRORAW	18:52	
			POTASSIUM	5	mg/L	U	N	Y	U	U							CRORAW	18:52
			SILVER	.01	mg/L	U	N	Y	U	U							CRORAW	18:52
			SODIUM	5.07	mg/L	U	N	Y	U	U							CRORAW	18:52
			VANADIUM	.05	mg/L	U	N	Y	U	U							CRORAW	18:52
			ZINC	.0276	mg/L	U	N	Y	P								CRORAW	18:52
			TOTREC	.01	mg/L	U	N	Y	U	U							CRORAW	18:52

# Validation Qualification Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX DII:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:		
									1	2	3	4				
KD3003	SW6010	TOTREC	LEAD	.003	mg/L	U	N	Y	U					CR0RAW	18:52	
			SELENIUM	.005	mg/L	U	N	Y	U						CR0RAW	18:52
			THALLIUM	.01	mg/L	U	N	Y	U						CR0RAW	18:52
	SW7470	TOTAL	MERCURY	.0002	mg/L	U	N	Y	U						CR0RAW	18:01
	SW8260	SW5030	1,1,1,2-TETRACHLOROETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,1,1-TRICHLOROETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,1,2,2-TETRACHLOROETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,1,2-TRICHLOROETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,1-DICHLOROETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,1-DICHLOROETHENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,1-DICHLOROPROPENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,2,3-TRICHLOROBENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,2,3-TRICHLOROPROPANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,2,4-TRICHLOROBENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,2,4-TRIMETHYLBENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,2-DIBROMO-3-CHLOROPROPANE	.002	mg/L	U	N	Y	U						CR0RAW	02:04
			1,2-DIBROMOETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,2-DICHLOROBENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,2-DICHLOROETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,2-DICHLOROPROPANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,3,5-TRIMETHYLBENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,3-DICHLOROBENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,3-DICHLOROPROPANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			1,4-DICHLOROBENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			2,2-DICHLOROPROPANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			2-BUTANONE	.005	mg/L	U	N	Y	U						CR0RAW	02:04
			2-CHLOROTOLUENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			2-HEXANONE	.005	mg/L	U	N	Y	U						CR0RAW	02:04
			4-CHLOROTOLUENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			4-METHYL-2-PENTANONE	.005	mg/L	U	N	Y	U						CR0RAW	02:04
			ACETONE	.01	mg/L	U	N	Y	U						CR0RAW	02:04
			BENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			BROMOBENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			BROMOCHLOROMETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			BROMODICHLOROMETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			BROMOFORM	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			BROMOMETHANE	.002	mg/L	U	N	Y	U						CR0RAW	02:04
			CARBON DISULFIDE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			CARBON TETRACHLORIDE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			CHLOROBENZENE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			CHLORODIBROMOMETHANE	.001	mg/L	U	N	Y	U						CR0RAW	02:04
			CHLOROETHANE	.002	mg/L	U	N	Y	U						CR0RAW	02:04
			CHLOROFORM	.001	mg/L	U	N	Y	U						CR0RAW	02:04

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 34 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
									1	2	3	4		
KD3003	SW8260 SW5030	N 0 1	CHLOROMETHANE	.002	mg/L	U	N Y U	U					CR0RAW	02:04
			CIS-1,2-DICHLOROETHENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			CIS-1,3-DICHLOROPROPENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			DIBROMOMETHANE	.001	mg/L	U	N Y U	R			04A 05A		CR0RAW	02:04
			DICHLORODIFLUOROMETHANE	.002	mg/L	U	N Y U	U					CR0RAW	02:04
			ETHYLBENZENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			HEXACHLOROBUTADIENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			ISOPROPYLBENZENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			M-XYLENE & P-XYLENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			METHYLENE CHLORIDE	.001	mg/L	U	N Y U	UJ			04B		CR0RAW	02:04
			N-BUTYLBENZENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			N-PROPYLBENZENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			NAPHTHALENE	.001	mg/L	U	N Y U	UJ			05B		CR0RAW	02:04
			O-XYLENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			P-ISOPROPYL TOLUENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			SEC-BUTYLBENZENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			STYRENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			TERT-BUTYLBENZENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			TETRACHLOROETHENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			TOLUENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			TRANS-1,2-DICHLOROETHENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			TRANS-1,3-DICHLOROPROPENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			TRICHLOROETHENE	.001	mg/L	U	N Y U	U					CR0RAW	02:04
			TRICHLOROFLUOROMETHANE	.002	mg/L	U	N Y U	U					CR0RAW	02:04
			VINYL CHLORIDE	.002	mg/L	U	N Y U	U					CR0RAW	02:04
SW8270	SW3520	N 0 1	1,2,4-TRICHLOROBENZENE	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			1,2-DICHLOROBENZENE	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			1,3-DICHLOROBENZENE	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			1,4-DICHLOROBENZENE	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2,2-OXYBIS(1-CHLOROPROPANE)	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2,4,5-TRICHLOROPHENOL	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2,4,6-TRICHLOROPHENOL	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2,4-DICHLOROPHENOL	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2,4-DIMETHYLPHENOL	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2,4-DINITROPHENOL	.05	mg/L	U	N Y U	U					CR0RAW	12:15
			2,4-DINITROTOLUENE	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2,6-DINITROTOLUENE	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2-CHLORONAPHTHALENE	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2-CHLOROPHENOL	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2-METHYLNAPHTHALENE	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2-METHYLPHENOL	.01	mg/L	U	N Y U	U					CR0RAW	12:15
			2-NITROANILINE	.05	mg/L	U	N Y U	U					CR0RAW	12:15
			2-NITROPHENOL	.01	mg/L	U	N Y U	U					CR0RAW	12:15

# Validation Qualification Data Entry Verification

Fort McClellan

Page: 35 of 39

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	FH REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
									1	2	3	4		
KD3003	SW8270 SW3520	N 0 1	3,3'-DICHLOROBENZIDINE	.05	mg/L	U	N Y U	U	U				CR0RAW	12:15
			3-NITROANILINE	.05	mg/L	U	N Y U	U	U				CR0RAW	12:15
			4,6-DINITRO-2-METHYLPHENOL	.05	mg/L	U	N Y U	U	U				CR0RAW	12:15
			4-BROMOPHENYL PHENYL ETHER	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			4-CHLORO-3-METHYLPHENOL	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			4-CHLOROANILINE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			4-CHLOROPHENYL PHENYL ETHER	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			4-METHYLPHENOL	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			4-NITROANILINE	.05	mg/L	U	N Y U	U	U				CR0RAW	12:15
			4-NITROPHENOL	.05	mg/L	U	N Y U	U	U				CR0RAW	12:15
			ACENAPHTHENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			ACENAPHTHYLENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			ANTHRACENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			BENZO(A)ANTHRACENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			BENZO(A)PYRENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			BENZO(B)FLUORANTHENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			BENZO(GH)PERYLENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			BENZO(K)FLUORANTHENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			BIS(2-CHLOROETHOXY)METHANE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			BIS(2-CHLOROETHYL) ETHER	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			BIS(2-ETHYLHEXYL) PHTHALATE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			BUTYL BENZYL PHTHALATE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			CARBAZOLE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			CHRYSENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			DI-N-BUTYL PHTHALATE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			DI-N-OCTYL PHTHALATE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			DIBENZ(A,H)ANTHRACENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			DIBENZOFURAN	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			DIETHYL PHTHALATE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			DIMETHYL PHTHALATE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			FLUORANTHENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			FLUORENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			HEXACHLOROBENZENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			HEXACHLOROBUTADIENE	.05	mg/L	U	N Y U	U	U				CR0RAW	12:15
			HEXACHLOROCYCLOPENTADIENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			HEXACHLOROETHANE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			INDENO(1,2,3-CD)PYRENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			ISOPHORONE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			N-NITROSODI-N-PROPYLAMINE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			N-NITROSODIPHENYLAMINE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			NAPHTHALENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			NITROBENZENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15
			PENTACHLOROPHENOL	.05	mg/L	U	N Y U	U	U				CR0RAW	12:15
			PHENANTHRENE	.01	mg/L	U	N Y U	U	U				CR0RAW	12:15

08B

11B

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 36 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
									1	2	3	4			
KD3003	SW8270 SW3520	N 0 1	PHENOL	.01	mg/L	U	N Y	U	U					CRORAW	12:15
			PYRENE	.01	mg/L	U	N Y	U	U	08B				CRORAW	12:15
KD3004	SW6010 SW3005	N 0 1	ALUMINUM	.0594	mg/L	B	Y Y	B		06B 06C 08A	15			CRORCW	18:57
			ANTIMONY	.06	mg/L	U	N Y	U						CRORCW	18:57
			BARIIUM	.0482	mg/L	B	Y Y	J		15				CRORCW	18:57
			BERYLLIUM	.005	mg/L	U	N Y	U						CRORCW	18:57
			CADMIUM	.005	mg/L	U	N Y	U						CRORCW	18:57
			CALCIUM	1.56	mg/L	B	Y Y	J		15				CRORCW	18:57
			CHROMIUM	.01	mg/L	U	N Y	U						CRORCW	18:57
			COBALT	.0076	mg/L	B	Y Y	J		15				CRORCW	18:57
			COPPER	.025	mg/L	U	N Y	U						CRORCW	18:57
			IRON	.398	mg/L	U	N Y	J		08A				CRORCW	18:57
			MAGNESIUM	4.12	mg/L	B	Y Y	J		15				CRORCW	18:57
			MANGANESE	.0616	mg/L	U	Y Y							CRORCW	18:57
			NICKEL	.021	mg/L	B	Y Y	J		15				CRORCW	18:57
			POTASSIUM	5	mg/L	U	N Y	U						CRORCW	18:57
			SILVER	.01	mg/L	U	N Y	U						CRORCW	18:57
			SODIUM	5.23	mg/L	U	Y Y							CRORCW	18:57
			VANADIUM	.05	mg/L	U	N Y	U						CRORCW	18:57
			ZINC	.0282	mg/L	U	Y Y							CRORCW	18:57
SW6010	TOTREC	N 0 1	ARSENIC	.01	mg/L	U	N Y	U						CRORCW	18:57
			LEAD	.003	mg/L	U	N Y	U						CRORCW	18:57
			SELENIUM	.005	mg/L	U	N Y	U						CRORCW	18:57
			THALLIUM	.01	mg/L	U	N Y	U						CRORCW	18:57
SW7470	TOTAL	N 0 1	MERCURY	.0002	mg/L	U	N Y	U						CRORCW	18:04
SW8260	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,1,1-TRICHLOROETHANE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,1,2,2-TETRACHLOROETHANE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,1,2-TRICHLOROETHANE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,1-DICHLOROETHANE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,1-DICHLOROETHENE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,1-DICHLOROPROPENE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,2,3-TRICHLOROBENZENE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,2,3-TRICHLOROPROPANE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,2,4-TRICHLOROBENZENE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,2,4-TRIMETHYLBENZENE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,2-DIBROMO-3-CHLOROPROPANE	.002	mg/L	U	N Y	R		04A 05A 05B				CRORCW	02:31
			1,2-DIBROMOETHANE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,2-DICHLOROBENZENE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,2-DICHLOROETHANE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,2-DICHLOROPROPANE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,3,5-TRIMETHYLBENZENE	.001	mg/L	U	N Y	U						CRORCW	02:31
			1,3-DICHLOROBENZENE	.001	mg/L	U	N Y	U						CRORCW	02:31

# Validation Qualif Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:				
									1	2	3	4						
KD3004	SW8260 SW5030	N 0 1	1,3-DICHLOROPROPANE	.001	mg/L	U	N	Y	U					CR0RCW	02:31			
			1,4-DICHLOROBENZENE	.001	mg/L	U	N	Y	U						CR0RCW	02:31		
			2,2-DICHLOROPROPANE	.001	mg/L	U	N	Y	U							CR0RCW	02:31	
			2-BUTANONE	.005	mg/L	U	N	Y	R				04A	05A		CR0RCW	02:31	
			2-CHLOROTOLUENE	.001	mg/L	U	N	Y	U							CR0RCW	02:31	
			2-HEXANONE	.005	mg/L	U	N	Y	UJ					05B		CR0RCW	02:31	
			4-CHLOROTOLUENE	.001	mg/L	U	N	Y	U							CR0RCW	02:31	
			4-METHYL-2-PENTANONE	.005	mg/L	U	N	Y	U							CR0RCW	02:31	
			ACETONE	.01	mg/L	U	N	Y	R					04A	05A		CR0RCW	02:31
			BENZENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			BROMOBENZENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			BROMOCHLOROMETHANE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			BROMODICHLOROMETHANE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			BROMOFORM	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			BROMOMETHANE	.002	mg/L	U	N	Y	U								CR0RCW	02:31
			CARBON DISULFIDE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			CARBON TETRACHLORIDE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			CHLOROBENZENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			CHLORODIBROMOMETHANE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			CHLOROETHANE	.002	mg/L	U	N	Y	U								CR0RCW	02:31
			CHLOROFORM	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			CHLOROMETHANE	.002	mg/L	U	N	Y	U								CR0RCW	02:31
			CIS-1,2-DICHLOROETHENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			CIS-1,3-DICHLOROPROPENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31
			DIBROMOMETHANE	.001	mg/L	U	N	Y	R					04A	05A		CR0RCW	02:31
			DICHLORODIFLUOROMETHANE	.002	mg/L	U	N	Y	U								CR0RCW	02:31
ETHYLBENZENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
HEXACHLOROBUTADIENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
ISOPROPYLBENZENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
M-XYLENE & P-XYLENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
METHYLENE CHLORIDE	.001	mg/L	U	N	Y	UJ					04B			CR0RCW	02:31			
N-BUTYLBENZENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
N-PROPYLBENZENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
NAPHTHALENE	.001	mg/L	U	N	Y	UJ					05B			CR0RCW	02:31			
O-XYLENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
P-ISOPROPYLTOLUENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
SEC-BUTYLBENZENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
STYRENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
TERT-BUTYLBENZENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
TETRACHLOROETHENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
TOLUENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
TRANS-1,2-DICHLOROETHENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
TRANS-1,3-DICHLOROPROPENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			
TRICHLOROETHENE	.001	mg/L	U	N	Y	U								CR0RCW	02:31			

# Validation Qualifier Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Page: 38 of 39

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:	
									1	2	3	4			
KD3004	SW8260	SW5030	TRICHLOROFLUOROMETHANE	.002	mg/L	U	N	Y	U					CR0RCW	02:31
	SW8270	SW3520	VINYL CHLORIDE	.002	mg/L	U	N	Y	U					CR0RCW	02:31
			1,2,4-TRICHLOROBENZENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			1,2-DICHLOROBENZENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			1,3-DICHLOROBENZENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			1,4-DICHLOROBENZENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2,2'-OXYBIS(1-CHLOROPROPANE)	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2,4,5-TRICHLOROPHENOL	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2,4,6-TRICHLOROPHENOL	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2,4-DICHLOROPHENOL	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2,4-DIMETHYLPHENOL	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2,4-DINITROPHENOL	.05	mg/L	U	N	Y	U					CR0RCW	12:48
			2,4-DINITROTOLUENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2,6-DINITROTOLUENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2-CHLORONAPHTHALENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2-CHLOROPHENOL	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2-METHYLNAPHTHALENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2-METHYLPHENOL	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			2-NITROANILINE	.05	mg/L	U	N	Y	U					CR0RCW	12:48
			2-NITROPHENOL	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			3,3'-DICHLOROBENZIDINE	.05	mg/L	U	N	Y	U					CR0RCW	12:48
			3-NITROANILINE	.05	mg/L	U	N	Y	U					CR0RCW	12:48
			4,6-DINITRO-2-METHYLPHENOL	.05	mg/L	U	N	Y	U					CR0RCW	12:48
			4-BROMOPHENYL PHENYL ETHER	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			4-CHLORO-3-METHYLPHENOL	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			4-CHLOROANILINE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			4-CHLOROPHENYL PHENYL ETHER	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			4-METHYLPHENOL	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			4-NITROANILINE	.05	mg/L	U	N	Y	U					CR0RCW	12:48
			4-NITROPHENOL	.05	mg/L	U	N	Y	U					CR0RCW	12:48
			ACENAPHTHENE	.01	mg/L	U	N	Y	UJ					CR0RCW	12:48
			ACENAPHTHYLENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			ANTHRACENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			BENZO(A)ANTHRACENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			BENZO(A)PYRENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			BENZO(B)FLUORANTHENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			BENZO(GH)PERYLENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			BENZO(K)FLUORANTHENE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			BIS(2-CHLOROETHOXY)METHANE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			BIS(2-CHLOROETHYL) ETHER	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			BIS(2-ETHYLHEXYL) PHTHALATE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			BUTYL BENZYL PHTHALATE	.01	mg/L	U	N	Y	U					CR0RCW	12:48
			CARBAZOLE	.01	mg/L	U	N	Y	U					CR0RCW	12:48

08B

# Validation Qualifi Data Entry Verification

Fort McClellan

Run Date: October 11, 2000

Sample Number:	Analytical/Extraction Method:	Fit REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	VQlfr:	Reason Codes				Lab Sample:	Analysis Time:
									1	2	3	4		
KD3004	SW8270 SW3520	N 0 1	CHRYSENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			DI-N-BUTYL PHTHALATE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			DI-N-OCTYL PHTHALATE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			DIBENZ(A,H)ANTHRACENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			DIBENZOFURAN	.01	mg/L	U	N Y	U					CR0RCW	12:48
			DIETHYL PHTHALATE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			DIMETHYL PHTHALATE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			FLUORANTHENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			FLUORENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			HEXACHLOROBENZENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			HEXACHLOROBUTADIENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			HEXACHLOROCYCLOPENTADIENE	.05	mg/L	U	N Y	U					CR0RCW	12:48
			HEXACHLOROETHANE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			INDENO(1,2,3-CD)PYRENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			ISOPHORONE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			N-NITROSODI-N-PROPYLAMINE	.01	mg/L	U	N Y	UJ	11B				CR0RCW	12:48
			N-NITROSODIPHENYLAMINE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			NAPHTHALENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			NITROBENZENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			PENTACHLOROPHENOL	.05	mg/L	U	N Y	U					CR0RCW	12:48
			PHENANTHRENE	.01	mg/L	U	N Y	U					CR0RCW	12:48
			PHENOL	.01	mg/L	U	N Y	U					CR0RCW	12:48
			PYRENE	.01	mg/L	U	N Y	UJ	08B				CR0RCW	12:48

**APPENDIX G**

**SUMMARY STATISTICS FOR BACKGROUND MEDIA,  
FORT MCCLELLAN, ALABAMA**

**Table 4-12. Summary Statistics for Surface Soil (0 - 1 BLS)  
Fort McClellan, Alabama**

Exposure Unit, SS Parameter	Units	Total Number of Samples	Total Number of Detects	Frequency of Detects	NonDetects		Detects		Maximum	Arithmetic Mean <sup>a</sup>	Standard Deviation <sup>a</sup>	Distribution <sup>b</sup>	95% UCL of Arith. Mean <sup>a</sup>	Exposure Point Concentration <sup>c</sup>	2x Arithmetic Mean <sup>a</sup>
					Min CBL	Max CBL	Minimum	Maximum							
Aluminum	ug/g	70	70	100%	--	--	2,400	39,900	8,153.00	6,085	Lognormal	11,187	11,187	16,306	
Antimony	ug/g	69	47	68%	0.082	7.1	0.11	2.6	0.99	1.3	Lognormal	3.4	2.6	#	
Arsenic	ug/g	66	66	100%	--	--	0.82	49	6.86	8.0	Lognormal	13	13	13.73	
Barium	ug/g	70	70	100%	--	--	11	288	61.97	54	Lognormal	99	99	123.94	
Beryllium	ug/g	54	54	100%	--	--	0.082	0.87	0.40	0.22	Lognormal	0.61	0.61	0.80	
Cadmium	ug/g	70	45	64%	0.016	1.2	0.024	0.21	0.14	0.16	Lognormal	0.36	0.21	#	
Calcium	ug/g	70	66	94%	75	100	63	17,900	861.37	2,265	Lognormal	1,942	1,942	1,723	
Chlorium	ug/g	70	70	100%	--	--	2.0	134	18.52	20	Lognormal	31	31	37.04	
Cobalt	ug/g	70	68	97%	1.4	1.4	0.39	71	7.57	12	Lognormal	18	18	15.15	
Copper	ug/g	70	69	99%	0.50	0.50	1.3	24	6.36	4.4	Lognormal	11	11	12.71	
Iron	ug/g	70	70	100%	--	--	2,510	56,300	17,076.86	11,577	Lognormal	27,000	27,000	34,154	
Lead	ug/g	70	70	100%	--	--	2.9	83	20.02	15	Lognormal	33	33	40.05	
Magnesium	ug/g	70	70	100%	--	--	60	9,600	516.49	1,266	Lognormal	768	768	1,033	
Manganese	ug/g	70	70	100%	--	--	8.0	6,850	789.46	1,192	Lognormal	3,183	3,183	1,579	
Mercury	ug/g	70	23	33%	0.023	0.050	0.031	0.32	0.04	0.046	Lognormal	0.058	0.058	0.08	
Nickel	ug/g	70	56	80%	1.6	2.3	1.8	22	5.17	4.2	Lognormal	9.7	9.7	10.33	
Potassium	ug/g	70	60	86%	82	116	104	6,010	399.88	946	Lognormal	607	607	799.76	
Selenium	ug/g	70	1	1%	0.25	0.58	1.3	1.3	0.24	0.14	Lognormal	0.29	0.29	0.48	
Silver	ug/g	70	42	60%	0.016	0.80	0.019	1.9	0.18	0.34	Lognormal	0.70	0.70	0.36	
Sodium	ug/g	70	66	94%	39	39	76	563	317.14	98	Lognormal	562	562	634.28	
Thallium	ug/g	68	55	81%	6.6	6.6	0.015	34	1.71	5.9	Lognormal	12	12	3.43	
Vanadium	ug/g	70	70	100%	--	--	4.7	158	29.42	26	Lognormal	48	48	58.84	
Zinc	ug/g	70	64	91%	4.9	11	4.6	209	20.32	28	Lognormal	35	35	40.64	

<sup>a</sup>Results of duplicate analyses were averaged and nondetects were treated as one-half the detection limit in the calculation of the arithmetic mean, standard deviation, and 95% UCL.

<sup>b</sup>For the calculation of exposure point concentrations (EPCs):  
If fewer than four samples are available, or the standard deviation of the data set is zero, the distribution is undetermined.  
If the probability plot correlation coefficient of the untransformed data is > or = to the critical value, the distribution is normal.

In all other cases, the distribution assumed for the EPC calculation was lognormal.

<sup>c</sup>The exposure point concentration (EPC) is the 95% upper confidence (UCL) of the arithmetic mean, unless the 95% UCL exceeds the maximum detected value. If the latter is true, the maximum detected value is substituted as the EPC (denoted by a '#' next to the EPC).

-- Parameter detected in all samples.

**Table 4-13. Summary Statistics for Subsurface Soil (>1-10 feet BLS)  
Fort McClellan, Alabama**

Exposure Unit: SD Parameter	Units	Total Number of Samples	Total Number of Detects	Frequency of Detection	Non-Detects		Detects		Maximum	Arithmetic Mean <sup>a</sup>	Standard Deviation <sup>a</sup>	Distribution <sup>b</sup>	95% UCL of Arith. Mean <sup>a</sup>	Exposure Point Concentration <sup>c</sup>	2x Arithmetic Mean <sup>a</sup>
					Min. CRL	Max. CRL	Minimum	Maximum							
Aluminum	ug/g	64	64	100%	--	--	1.690	24,600	6,795.47	3.552	Lognormal	9,068	9,068	13,591	
Antimony	ug/g	63	46	73%	0.079	7.1	0.082	0.99	0.65	0.98	Lognormal	1.8	0.99	1.31	
Arsenic	ug/g	64	61	95%	0.25	0.45	0.77	38	9.15	9.7	Lognormal	36	36	18.30	
Barium	ug/g	64	64	100%	--	--	4.1	4,500	116.81	562	Lognormal	161	161	233.62	
Beryllium	ug/g	59	57	97%	0.051	0.053	0.041	2.0	0.43	0.43	Lognormal	0.94	0.94	0.86	
Cadmium	ug/g	64	35	55%	0.015	1.2	0.020	1.3	0.11	0.21	Lognormal	0.30	0.30	0.22	
Calcium	ug/g	64	44	69%	57	200	67	3,650	318.58	606	Lognormal	772	772	637.17	
Chromium	ug/g	64	64	100%	--	--	5.5	55	19.13	11	Lognormal	27	27	38.25	
Cobalt	ug/g	64	60	94%	0.23	1.4	0.26	98	8.77	16	Lognormal	34	34	17.54	
Copper	ug/g	64	64	100%	--	--	1.3	61	9.72	9.1	Lognormal	16	16	19.43	
Iron	ug/g	64	64	100%	--	--	4.840	48,000	22,408.44	10,436	Normal	24,586	24,586	44,817	
Lead	ug/g	64	64	100%	--	--	0.96	500	19.27	61	Lognormal	27	27	38.53	
Magnesium	ug/g	64	60	94%	100	200	35	5,940	383.12	885	Lognormal	638	638	766.24	
Manganese	ug/g	64	63	98%	4.1	4.1	7.3	19,000	677.67	2,417	Lognormal	3,864	3,864	1,355	
Mercury	ug/g	64	31	48%	0.022	0.050	0.022	0.12	0.03	0.025	Lognormal	0.053	0.053	0.07	
Nickel	ug/g	64	51	80%	1.6	2.2	2.2	38	6.45	7.8	Lognormal	13	13	12.89	
Potassium	ug/g	64	52	81%	75	110	98	6,150	355.37	774	Lognormal	680	680	710.74	
Selenium	ug/g	64	1	2%	0.25	0.58	0.55	0.55	0.24	0.060	Lognormal	0.27	0.27	0.47	
Silver	ug/g	64	40	63%	0.016	1.2	0.021	0.66	0.12	0.15	Lognormal	0.47	0.47	0.24	
Sodium	ug/g	64	63	98%	39	39	203	643	351.05	118	Lognormal	471	471	702.10	
Thallium	ug/g	63	55	87%	0.0090	6.6	0.0090	24	0.70	3.0	Lognormal	2.0	2.0	1.40	
Vanadium	ug/g	64	64	100%	--	--	8.7	99	32.45	20	Lognormal	47	47	64.89	
Zinc	ug/g	64	50	78%	4.0	8.0	5.6	89	17.43	17	Lognormal	39	39	34.86	

\*Results of duplicate analyses were averaged and nondetects were treated as one-half the detection limit in the calculation of the arithmetic mean, standard deviation, and 95% UCL.

<sup>a</sup>For the calculation of exposure point concentrations (EPCs):

If fewer than four samples are available, or the standard deviation of the data set is zero, the distribution is undetermined. If the probability plot correlation coefficient of the untransformed data is > or = to the critical value, the distribution is normal.

In all other cases, the distribution assumed for the EPC calculation was lognormal.

<sup>b</sup>The exposure point concentration (EPC) is the 95% upper confidence (UCL) of the arithmetic mean, unless the 95% UCL exceeds the maximum detected value. If the latter is true, the maximum detected value is substituted as the EPC (denoted by a "#" next to the EPC).

-- Parameter detected in all samples.

**Table 4-9. Summary Statistics for Background Groundwater  
Fort McClellan, Alabama**

Parameter	Units	Total Number of Samples	Total Number of Detects	Frequency of Detection	NonDetects Min CRL	NonDetects Max CRL	Minimum	Maximum	Aithmetic Mean <sup>a</sup>	Standard Deviation <sup>a</sup>	Distribution <sup>b</sup>	95% UCL of Arith. Mean <sup>a</sup>	Exposure Point Concentration <sup>c</sup>	2x Arithmetic Mean <sup>a</sup>
Alkalinity-phenolphthalein	µg/L	33	2	6%	5,000	5,000	104,000	132,000	9,500.00	28,204	Lognormal	9,763	9,763	19,000
Aluminum	µg/L	57	34	60%	50	141	59	9,600	1,167.66	2,030	Lognormal	19,988	9,600	2,335
Antimony	µg/L	57	2	4%	0.60	10.0	0.70	0.80	1.60	1.7	Lognormal	4.4	0.80	3.191
Arsenic	µg/L	57	10	18%	1.1	2.5	1.5	2.24	8.88	41	Lognormal	6.1	6.1	17,764
Barium	µg/L	57	53	93%	6.5	18	5.5	401	63.73	88	Lognormal	144	144	127,458
Beryllium	µg/L	57	15	26%	0.20	5.0	0.20	2.4	0.62	0.74	Lognormal	1.8	1.8	1,247
Bicarbonate	µg/L	33	22	67%	5,000	172,000	9,000	392,000	100,818.18	93,636	Lognormal	831,264	392,000	201,636
Bromide	µg/L	33	4	12%	200	200	278	715	138.03	121	Lognormal	171	171	276,06
Cadmium	µg/L	57	22	39%	0.100	5.0	0.100	5.3	1.26	1.2	Lognormal	10	5.3	2.51
Calcium	µg/L	57	48	84%	231	33,900	217	452,000	28,246.44	60,264	Lognormal	560,060	452,000	56,493
Chloride	µg/L	33	24	73%	923	2,640	1,080	11,000	2,446.06	2,363	Lognormal	4,347	4,347	4,892
Cobalt	µg/L	57	3	5%	20	25	20	25	11.68	2.8	Lognormal	13	13	23.36
Copper	µg/L	57	10	18%	5.0	19	5.3	235	12.74	32	Lognormal	21	21	25.48
Fluoride	µg/L	33	6	18%	200	200	202	646	146.24	124	Lognormal	185	185	292.48
Iron	µg/L	57	44	77%	45	78	2.5	25,800	3,520.25	5,364	Lognormal	590,286	25,800	7,040
Lead	µg/L	57	25	44%	0.60	4.5	0.60	27	4.00	6.1	Lognormal	13	13	7.998
Magnesium	µg/L	57	47	82%	100	16,400	176	149,000	10,640.88	19,972	Lognormal	146,372	146,372	21,282
Manganese	µg/L	57	42	74%	5.0	9.7	9.8	5,820	290.25	809	Lognormal	7,221	5,820	560.5
Nitrate,Nitrite	µg/L	33	4	12%	10.0	1,110	430	771	141.26	219	Lognormal	1,192	771	282.5
Potassium	µg/L	57	43	75%	270	1,240	1.0	68,500	3,597.54	9,508	Lognormal	18,602	18,602	7,195
Silver	µg/L	57	1	2%	0.100	10.0	0.40	0.40	2.00	2.4	Lognormal	141	0.40	4.00
Sodium	µg/L	57	52	91%	892	1,180	555	64,700	7,423.18	11,765	Lognormal	23,173	23,173	14,846
Sulfate	µg/L	33	25	76%	1000	3,680	1,650	1.4E+06	51,628.33	242,827	Lognormal	88,195	88,195	103,257
Thallium	µg/L	54	7	13%	0.100	10.0	0.100	5.3	0.73	1.2	Lognormal	5.3	5.3	1,455
Total Alkalinity	µg/L	33	22	67%	5,000	172,000	9,000	392,000	103,424.24	93,707	Lognormal	860,230	392,000	208,848
Total Phosphorous	µg/L	33	21	64%	10.0	10.0	10.0	282	44.30	70	Lognormal	140	140	88,594
Vanadium	µg/L	57	2	4%	10.0	28	11	11	8.49	4.3	Lognormal	11	11	16,975
Zinc	µg/L	57	25	44%	18	30	22	1,160	109.98	249	Lognormal	273	273	219.97

<sup>a</sup>Results of duplicate analyses were averaged and nondetects were treated as one-half the detection limit in the calculation of the arithmetic mean, standard deviation, and 95% UCL.

<sup>b</sup>For the calculation of exposure point concentrations (EPCs):

If fewer than four samples are available, or the standard deviation of the data set is zero, the distribution is undetermined.

If the probability plot correlation coefficient of the untransformed data is > or = to the critical value, the distribution is normal.

In all other cases, the distribution assumed for the EPC calculation was lognormal.

<sup>c</sup>The exposure point concentration (EPC) is the 95% upper confidence (UCL) of the arithmetic mean, unless the 95% UCL exceeds the maximum detected value.

If the latter is true, the maximum detected value is substituted as the EPC (denoted by a "M" next to the EPC).

-- Parameter detected in all samples.