

# **FUEL STORAGE TANK REMOVAL ACTION ADDENDUM REPORT**

Environmental Investigation at the Formerly Used Defense Site (FUDS)  
at the Benicia Army Arsenal, Benicia, California

FUDS Number: J09CA075600

## **DRAFT FINAL**

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**FUEL STORAGE TANK REMOVAL ACTION ADDENDUM REPORT  
BENICIA ARMY ARSENAL, BENICIA, CALIFORNIA**

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## LIST OF ACRONYMS AND ABBREVIATIONS

Arsenal	former Benicia Army Arsenal
AST	above ground storage tank
BC	Brown and Caldwell
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DoD	United States Department of Defense
ECI	Ecology Control Industries, Inc.
EMLL	electromagnetic line locating
EPA	United States Environmental Protection Agency
ESL	Environmental Screening Level
FA/BC	Forsgren Associates/Brown and Caldwell
Fuel RA	Fuel Storage Tank Removal Action Report
Fuel RA Plan	Fuel Storage Tank Removal Action Plan
FUDS	Formerly Used Defense Site
GPR	ground penetrating radar
IDW	investigative derived waste
MCL	maximum contaminant level
MD	metal detection
MDL	method detection limit
mg/kg	milligram per kilogram
mg/L	milligram per liter
MtBE	methyl tertiary-butyl ether
NORCAL	NORCAL Geophysical Consultants
PA	Preliminary Assessment
PAH	polynuclear aromatic hydrocarbon
PCBs	polychlorinated biphenyls
QC	quality control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
ROE	right-of-entry
RWQCB	California Regional Water Quality Control Board, San Francisco Bay Region

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## LIST OF ACRONYMS AND ABBREVIATIONS

Arsenal	former Benicia Army Arsenal
AST	above ground storage tank
BC	Brown and Caldwell
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DoD	United States Department of Defense
ECI	Ecology Control Industries, Inc.
EMLL	electromagnetic line locating
EPA	United States Environmental Protection Agency
ESL	Environmental Screening Level
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MCL	maximum contaminant level
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MtBE	methyl tertiary-butyl ether
NORCAL	NORCAL Geophysical Consultants
PA	Preliminary Assessment
PAH	polynuclear aromatic hydrocarbon
PCBs	polychlorinated biphenyls
QC	quality control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
ROE	right-of-entry
RWQCB	California Regional Water Quality Control Board, San Francisco Bay Region

### LIST OF ACRONYMS AND ABBREVIATIONS (continued)

SI	Site Inspection
Solano County	Solano County Department of Resource Management, Environmental Health Services Division
SVOCs	semivolatile organic compounds
TCE	trichloroethene
TDS	total dissolved solids
TPH	total petroleum hydrocarbons
TPHD	total petroleum hydrocarbons-diesel fuel range organics
TPHG	total petroleum hydrocarbons-gasoline range organics
TPHMO	total petroleum hydrocarbons-motor oil range organics
$\mu\text{g}/\text{kg}$	microgram per kilogram
$\mu\text{g}/\text{L}$	microgram per liter
USACE	United States Army Corps of Engineers
UST	underground storage tank
VOC	volatile organic compound
VMG	vertical magnetic gradient

## EXECUTIVE SUMMARY

This addendum to the Fuel Storage Tank Removal Action (Fuel RA) Report presents data from an additional environmental site investigation conducted at the former Benicia Army Arsenal (Arsenal), a formerly used defense site (FUDS), located in Benicia, California. This work was performed on behalf of and with oversight by the United States Army Corps of Engineers (USACE), Sacramento District.

The Fuel RA (Brown and Caldwell [BC], 2005a) recommended further investigation to identify and/or remove underground storage tanks (USTs) at Buildings 27, 45, 161, and CL2. The Expanded Site Inspection (SI) Report also recommended additional investigation at Buildings 50 and 111 to identify and/or remove possible USTs. Of these six sites, one site, former Building CL2, could not be investigated because the landowner would not grant USACE access to the property. The remaining sites were investigated for:

- Removal of a UST at Building 161 and determine the lateral extent of petroleum hydrocarbons in soil from the former UST. Also to identify if there is a fuel line extending from Building 31 (a former fuel station) to Building 161 (a former maintenance facility) and remove a fuel fill pipe located in an underground vault.
- Locating, confirmation, and removal of the remaining USTs at Buildings 27, 45, 50, and 111.

### Summary of Field Activities

The following activities were completed during this project:

- Four potential UST sites were identified: Building 27, Building 45, Building 50, and Building 111.
- Right-of-entry (ROE) agreements were arranged with the current property owners for the Building 27, Building 45, Building 50, Building 111, and Building 161 sites. ROE was not granted by the landowner to USACE to search for the suspected UST at CL2.
- Geophysical surveys were performed at Buildings 27, 45, 50, and 111. A geophysical survey had been conducted previously at Building 161 to search for the UST during the initial *Fuel Storage Tank Removal Action* (BC, 2005a).
- A geophysical anomaly the size and shape of UST was identified at the Building 27 site. At Building 27, a test pit was excavated and the tank was removed. At Buildings 45, 50, and 111, it was concluded that the anomalies were not related to a UST. No anomalies were identified at Building 45. Reinforced concrete and a metal fence provided inconclusive evidence of a UST during the geophysical survey in the suspected area of the Building 161 UST. However, there was physical evidence found during the geophysical survey that indicated that the UST remained at Building 161. A fill port was found within a covered vault. A bailer was used to determine the contents and the approximate height of the UST. The UST contained a mixture of water and old waste oil. The approximate height of the tank was 4 feet.

- After removal of the USTs, soil and/or groundwater samples were collected and analyzed to evaluate the presence or absence of Department of Defense (DoD) related fuel contamination.

### **Recommendations**

Geophysical and visual investigations determined that there were no USTs found at Buildings 45, 50, or 111. No further DoD action is indicated at these locations.

The location of the tank at Building 27 was over-excavated to 11 feet below ground surface (bgs) through fractured and weathered sandstone bedrock. The fractures within the sandstone contain residual petroleum hydrocarbon concentrations within the diesel range, consistent with fuel oil and exceed the California Regional Water Quality Control, San Francisco Bay Region (RWQCB) Environmental Screening Levels (ESLs). There is no threat to groundwater. Therefore, no further DoD action is recommended at this location.

Suspected DoD sources appear to have impacted soil on the south side of the former UST at Building 161. Groundwater is impacted with diesel range and motor oil range petroleum hydrocarbons. The extent has been delineated. An evaluation of the remedial alternatives is recommended for the remaining petroleum hydrocarbons. An evaluation for the non-petroleum related compounds is recommended in a risk evaluation.

## 1.0 INTRODUCTION AND BACKGROUND

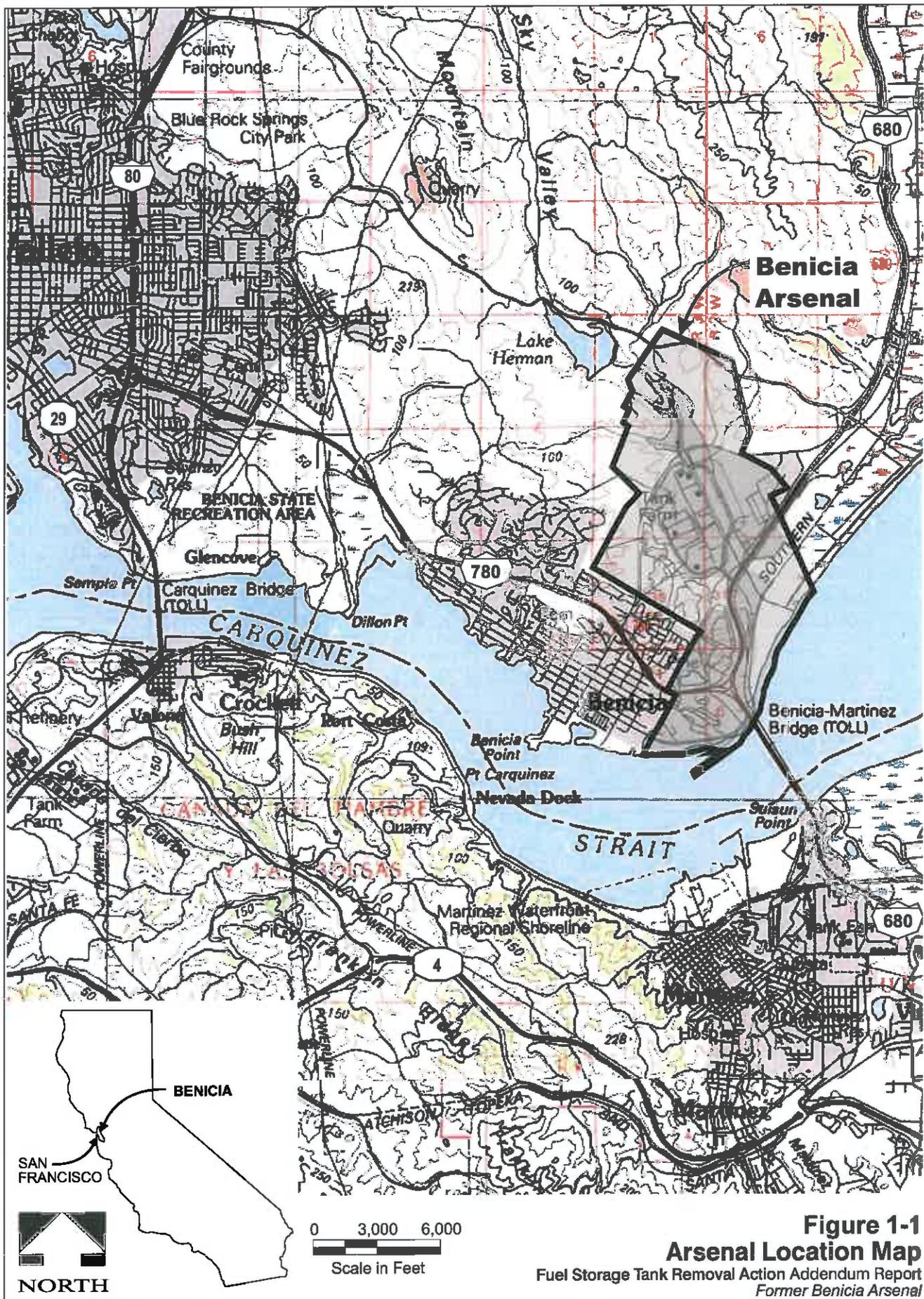
This addendum to the Fuel Storage Tank Removal Action Report (Fuel RA) was conducted at the former Benicia Army Arsenal (Arsenal) under General Services Administration Contract No. GS-10F-0101L, Veterans Administration Purchase Order 674-V40113 to comply with requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation Recovery Act (RCRA), as appropriate. This investigation was conducted in accordance with the *Fuel Storage Tank Removal Action Plan* (Fuel RA Plan) (BC, 2004) and the *Quality Assurance Project Plan* (QAPP) (Forsgren Associates/Brown and Caldwell [FA/BC], 2001). Figure 1-1 shows the location of the former Arsenal.

A description of the relationship between the Fuel RA and the formerly used defense site (FUDS) program, the methodology of choosing these sites, the location, and the historical and subsequent post-Army use of the Arsenal is provided in the Fuel RA (BC, 2005a).

This Fuel RA Addendum report is organized into six sections. Section 1.0 presents background information, including the historical uses and a summary of previous activities. Section 2.0 presents a summary of field methods and sampling rationale. Section 3.0 discusses the investigation results. It also summarizes disposal of investigation derived waste (IDW). Section 4.0 describes the quality and usability of the data collected during this site inspection. Section 5.0 presents the conclusions and recommendations and references are included as Section 6.0.

This report contains eight appendices. Each appendix is described briefly below.

- **Appendix A – Background Details of the Fuel Storage Tank Sites.** This appendix includes Preliminary Assessment (PA) summary forms for each site investigated in this addendum report. These forms have been updated with information gathered from the Fuel RA and other relevant investigations since the PA (FA/BC, 2004).
- **Appendix B –NORCAL Geophysical 17 March 2005 Report and 2 December 2005 Report.** A summary report of the geophysical survey conducted at Buildings 27, 45, 50 and 111.
- **Appendix C – Legend for Analytical Results.** Definitions of data acronyms, quality control flags, and reason codes.
- **Appendix D – Analytical Results for Soil.** The analytical results for soil are tabulated for all samples collected for this addendum investigation.
- **Appendix E – Analytical Results for Groundwater.** The analytical results for groundwater are tabulated for all samples collected for this addendum investigation.



**Figure 1-1  
Arsenal Location Map**

Fuel Storage Tank Removal Action Addendum Report  
Former Benicia Arsenal

- **Appendix F – Investigative Derived Waste Manifests.** Soil and water disposal manifests are presented.
- **Appendix G – Tank Manifests and Tank Destruction Certificates.** Certificates from Ecology Control Industries, Incorporated are provided in this appendix.

## 1.1 Problem Definition and Scope

Because of all the data already collected and summarized in the Fuel RA, this addendum fieldwork only required an investigation at a few sites. All of the work was not completed in the Fuel RA because a ROE agreement was not reached.

Two sites were recommended in the Expanded SI (BC, 2005b) and four sites were recommended in the Fuel RA for investigation. Therefore, there are a total of six sites requiring further investigation.

Of these six sites, one site (CL2) could not be investigated because the landowner would not grant USACE access to the property. All six sites are listed below with recommended activities and comments, DoD use, features and likely contents present based on its former DoD use (Table 1-1). Their locations are shown on Figure 1-2. Further details and background information are provided in Appendix A.

The overall objectives of this RA include the following:

- 1) Locate underground storage tanks (USTs) using geophysical techniques.
- 2) Confirm the location of the USTs and associated piping by pot-holing.
- 3) Identify DoD-related contamination from leakage from the fuel storage tanks and associated piping.
- 4) Remove the fuel storage tanks and associated piping.
- 5) Restore each site.
- 6) Delineate the residual contamination, if possible.

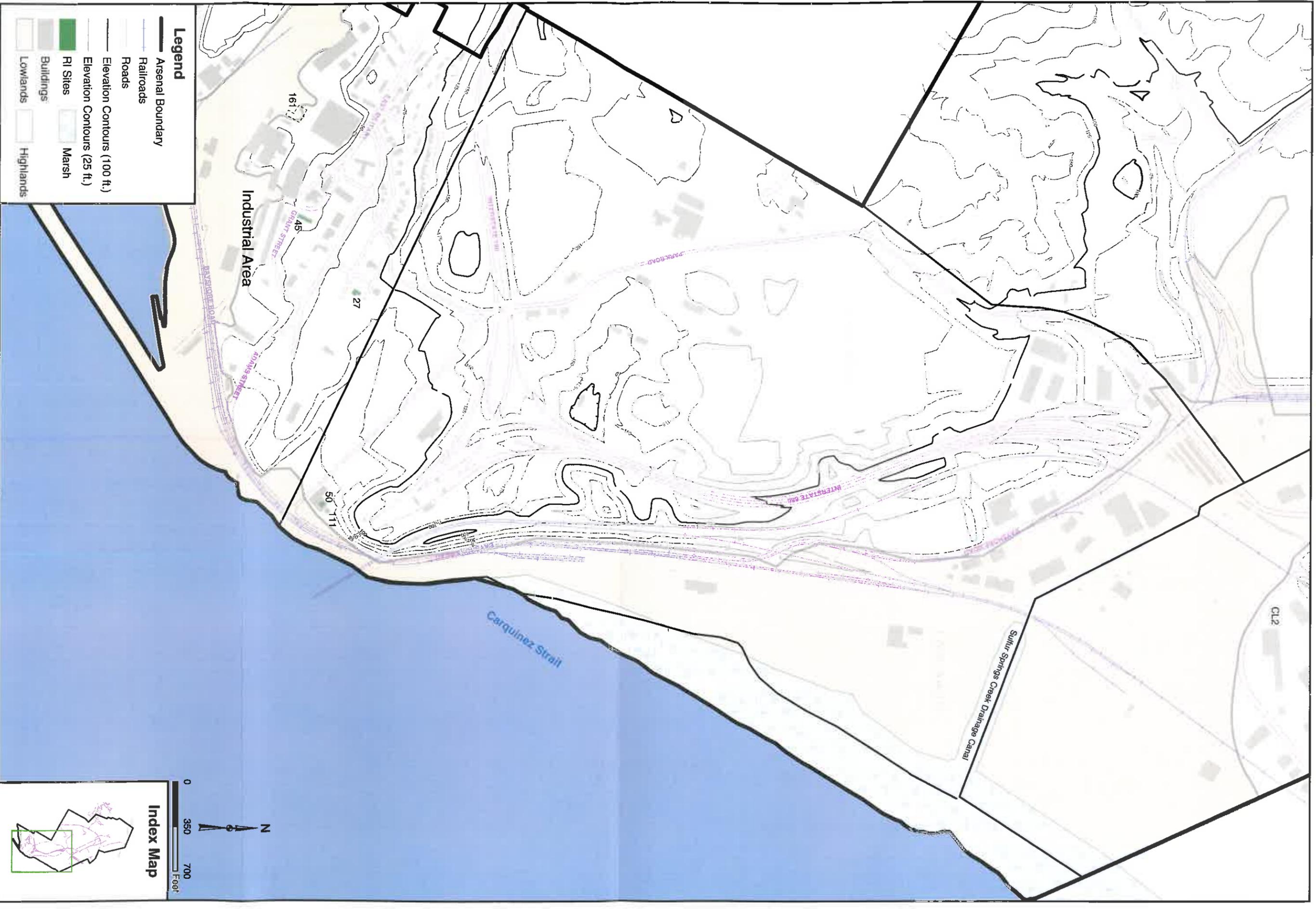
Table 1-1. Fuel Storage Tank Sites Information

Location	DoD Use	Number of Suspected USTs/ASTs	Installation date	Capacity (gallons)	Contents	Tank status	Summary
Building 27	Captain's quarters	1 UST	1928	250	Heating oil	Located and removed during this RA	A 250-gallon heating oil tank was reportedly installed in 1928 to accompany an enterprise rotary oil burner. The UST was located with geophysics and then confirmed by excavating.
Building 45	Enlisted Men's Barracks	1 UST	1929	400	Heating oil	Not present	Scaffolding was present in the area where the UST was suspected. Scaffolding was eventually removed and a geophysical investigation was performed. Geophysics scanned the area along the entire length of the western side of Building 45. No anomalies were identified that indicated the presence of a UST.
Building 50	Motor Cleaning Building	1 UST	1945 (estimated)	3,000-4,000	Kerosene, Waste Oil, Diesel	Not present	A contract was awarded in 1950 to install new gas mains and convert the fuel oil furnace to natural gas. Jim Milburn, a former Arsenal employee, also recalled refueling a diesel UST. During the Expanded SI Investigation (BC, 2005b), a hydroponch groundwater sample collected contained post-DoD contaminants (methyl tertiary-butyl ether [MtBE]). Geophysics was used to scan the area along the entire length of the eastern side of former Building 50. No anomalies were identified that indicated the presence of a UST. The survey trenching did not reveal a UST.
Building 111	Motor Cleaning Building	1 UST	1945 (estimated)	3,000-4,000	Kerosene, Waste Oil, Diesel	Not present	A contract was awarded in 1950 to install new gas mains and convert the fuel oil furnace to natural gas. Jim Milburn, a former Arsenal employee, also recalled refueling a diesel UST. During the Expanded SI Investigation (BC, 2005b), a hydroponch groundwater sample collected contained post-DoD contaminants (MtBE). Geophysics was used to scan the area along the entire length of the northern side of former Building 111. No anomalies were identified that indicated the presence of a UST. The survey trenching did not reveal a UST.

Table 1-1. Fuel Storage Tank Sites Information (Continued)

Location	DoD Use	Number of Suspected USTs/ASTs	Installation date	Capacity (gallons)	Contents	Tank status	Summary
Building 161	Motor Cleaning Building	1 UST	1945 (estimated)	3,000-4,000	Kerosene, Waste Oil, Diesel	Located and removed during this removal action.	Tank identified in a 1945 drawing. Tank fill pipe located, waste oil-like substance found in tank. Tank limits not determined due to interference of concrete surface and metal fence during geophysical survey. UST confirmed by excavating.
Building CL2	Boiler House	1 UST	1942	3,180	Fuel Oil	Potentially removed	Request for demolition of the UST was approved in 1955, to be replaced with a 5,000-gallon aboveground storage tank (AST). The AST is not present. It is unknown if the UST was removed. ROE was not granted to USACE to determine the status of the UST. A geophysical survey is recommended to determine the status of the UST. Until USACE is granted access to the property, no further USACE actions can be conducted at this site.

AST = aboveground storage tank  
 UST = underground storage tank



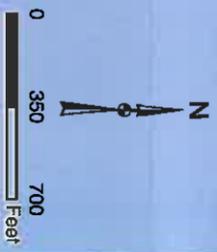
**BROWN AND CALDWELL**

PROJECT: 128336  
DATE: 3/6/2006

TITLE: Fuel Storage Tank Removal Action Addendum Sites  
SITE: Benicia Arsenal, Benicia, California

Figure 1-2

S:\Benicia\_USTRA Addendum\Fuel Storage Tank Removal Action.mxd



Index Map



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## 1.2 Site Locations and Historical Use

The Army operated industrial and manufacturing shops, maintenance facilities, and fuel and waste storage areas. Potential sources of chemical releases from these activities include USTs, vapor degreasers, maintenance pits, degreasing tanks and suspected waste disposal areas. Fuel-related petroleum hydrocarbons were expected at the former Arsenal due to known releases from former USTs and possibly from the remaining suspected USTs. The contents of these USTs included fuel oil, diesel fuel and gasoline. These petroleum products were used in vehicles, machinery and other equipment.

The above descriptions of fuel storage activities do not account for any post-Army use. After closure of the Arsenal in 1964, the fuel storage tanks remained. Tenants and landowners may have used these tanks.

## 1.3 Previous Activities Conducted at Buildings 27, 45, 50, 111, 161, and CL2

Activities and information that led to the investigation at each of the six sites included in this addendum are provided below. This text has been summarized from the Expanded SI (BC, 2005b) and the Fuel RA (BC, 2005a). For detailed information about each, please refer to the Expanded SI Report (BC, 2005b), the Fuel RA (BC, 2005a), or the Preliminary Assessment (PA) (FA/BC, 2004).

**Captain's Quarters (Building 27).** The building that housed the Captain's Quarters reportedly contained a 250-gallon fuel oil tank and burner (FA/BC, 2004). USACE had made multiple attempts to get ROE approval; however, the property owner denied access and no previous sampling has occurred. After years of negotiations with the landowner, USACE was allowed access to the property to search for the fuel oil tank using geophysics for this addendum investigation. In the Preliminary Assessment (FA/BC, 2004), a geophysical investigation was recommended to determine if the UST is still present.

**Enlisted Men's Barracks (Building 45).** Previously used as the enlisted men's barracks, Building 45 is believed to have a 400-gallon fuel oil tank and burner (FA/BC, 2004). During the Fuel Only and Fuel RA investigations in 2002 and 2005, respectively, the current landowner was remodeling the building and had scaffolding in the area where the UST is suspected. The scaffolding prohibited any geophysical or exploratory work to find the UST. Recently, the scaffolding was removed and USACE pursued another ROE with the landowner. Access was granted to search for the UST using geophysical techniques for this addendum investigation.

**Former Heavy Equipment Yard (Buildings 50 and 111).** A paint shop (Building 50) and an equipment shop (Building 111) were part of the former heavy equipment yard located east of the industrial area and near the Carquinez Strait (Figure 1-2). Building 50 reportedly maintained a 500-gallon stove oil tank and two 5,500-gallon road oil tanks (FA/BC, 2004). After the Army left the installation in 1964, a 3,000-gallon kerosene UST was removed in 1987 and a 10,000-gallon

gasoline UST was removed in 1995. These tanks are assumed to be installed post Army. Solano County Department of Environmental Management issued a UST site closure letter in 1995 and no further investigation or action was required for these removed USTs.

Two borings (B050HP001 and B111HP001) were advanced downgradient of the buildings to determine the presence or absence of a possible release of solvents and fuels from former DoD cleaning and fueling activities at these buildings.

The result from this sampling effort indicates no DoD impact due to any release from these stove oil or road oil ASTs. Residual concentrations of gasoline were reported in the groundwater and are the result of the post Army release.

**Former Motor Cleaning Building/Steam Cleaning/Paint Spray/Fuel Storage (Building 161).**

Operations in this building included motor cleaning, steam cleaning, and spray painting. Drawings of the building shows the location of a kerosene storage tank, a paint spray booth, a degreaser, a steam cleaner, a service pit, a boiler house, four drain trenches, and six catch basins. Other historic records indicate that the building contained a dip tank line, stripping tank, two acid dip tanks, two water dip tanks, and a neutralizer tank. Locations of these structures are unknown. The service pit measures 10 feet long by 3.5 feet wide and has a 6-inch drain connecting to the storm drain. In 1952, the building operations included steam cleaning of large components, dipping and painting (FA/BC, 2004). The building had been constructed in a temporary-type manner on reclaimed tidelands without pilings. The building was later demolished after the Army left the Arsenal in 1964.

According to historic records, temporary construction of buildings resulted in uneven settling, creating excessive stresses in trussed members to the extent that numerous failures occurred. Floors sank so badly that the floor drains could not operate (FA/BC, 2004). In 1952, there was sewer system deficiencies noted at Building 161, such that frequent rodding was needed to keep the sewage lines open (FA/BC, 2004). Currently, the building foundation with the drain trenches, catch basins and service pit remain.

As part of the Expanded SI, two borings (B161HP001 and B161HP002) were advanced downgradient of Building 161 to determine the presence or absence of fuels, metals and solvents in groundwater from a suspected release from former DoD cleaning activities in the building and from a possible release of fuels from the fuel storage UST. Cobalt and nickel were identified above their respective Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) in groundwater samples. A risk assessment was recommended for the constituents found in groundwater.

Petroleum hydrocarbons were not reported above RWQCB ESLs in groundwater.

Trichloroethylene (TCE) and its daughter products were detected in groundwater (BC, 2005b). TCE and vinyl chloride exceed their respective RWQCB ESLs. The occurrence of TCE and its

daughter products are part of a larger plume that is discussed further in the Expanded SI (BC, 2005b). There is no documented DoD use of solvents at Building 161.

As part of the Fuel RA (BC, 2005a), a tank fill pipe was located and waste oil-like substance found in the UST. The tank limits were not determined due to interference of a concrete surface during the geophysical survey. The property owner did not initially grant access to the property to remove this UST. After additional correspondence with the landowner, USACE was granted access to the property for the removal and investigation of the UST.

**CL2 Boiler House.** CL2 was a former boiler house. A 3,180-gallon UST was installed near Building CL2 at the time of the building's construction in 1942. In 1955, a request to remove the UST was approved but it is unknown if the tank was removed. A 5,000-gallon capacity AST reportedly replaced the UST adjacent to Building CL2. The AST is not present at the site but it is not known if the UST was removed. The chemicals of interest at CL2 are fuels.

The investigation to determine if a UST is present at the former UST remains unfinished. The landowner refused right-of-entry to USACE. Once access to CL2 is granted, a geophysical investigation is recommended at CL 2 to determine if a UST is present.

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## 2.0 FIELD METHODS

This section presents the technical approach to investigation at UST sites and a description of the field sampling procedures and analytical parameters for the Fuel Storage Tank Addendum RA. Additional description of the field methods and procedures, field quality control (QC) procedures and the site Health and Safety Plan are included in the Fuel RA Plan (BC, 2004). Standard operating procedures implemented during the project are listed in Table 6-1 of the RA Plan and are included in Appendix F of the QAPP for environmental investigations at the former Arsenal (FA/BC, 2001).

### 2.1 Technical Approach

The following technical approach was used to investigate the potential UST sites:

- A ROE agreement with USACE was arranged with the landowner.
- Geophysical surveys were performed to identify anomalous areas that may indicate the presence of USTs and associated piping. Geophysical surveys were also used to identify buried utilities in the vicinity of the anomaly.
- If an anomaly was identified the size and shape of the suspected UST, a permit for the removal of the UST was obtained from Solano County Department of Resource Management, Environmental Health Services Division (Solano County).
- After the UST removal permit was approved, a test pit was excavated to determine the reason for the anomaly. Lithologic data was obtained during excavation.
- If tanks were found, they were removed from site.
- Soil and/or groundwater samples were collected from each confirmed fuel storage tank location and analyzed to determine the presence or absence of DoD-fuel related contamination at each location.
- If contamination was discovered or suspected to be above project criteria, additional direct-push soil and/or groundwater samples were collected to delineate the DoD-related fuel contamination.
- The site was restored.

### 2.2 Sampling Procedures

Samples were collected to identify and delineate DoD-related fuel contamination. As part of this addendum investigation, soil samples were collected at each of the UST removal sites in accordance with the Fuel RA Plan (BC, 2004), which included Solano County's procedures required for UST

closures. Direct-push soil samples were collected in order to delineate the DoD-related fuel contamination identified at the Fuel RA sites. The methods, locations, and results of the direct push soil and/or groundwater sampling are described in the following sections.

### 2.2.1 Sample Collection

Samples were collected from the UST excavations, and from stockpiles of excavated soil. Depth-discrete soil samples were collected using either an impact slide hammer with an attached sampler or using geoprobe direct push technology. The bucket on the excavator was used for samples collected from the excavations greater than 4 feet deep. All decontamination was performed as specified in the QAPP (FA/BC, 2001).

**UST Excavations.** In accordance with Solano County requirements, one soil sample was collected from under the UST or the concrete slab (if present) for tanks less than 1,000 gallons. For USTs between 1,000 gallons and 10,000 gallons, one sample was collected from under each end of the UST. If groundwater was encountered the same number of samples were collected from the side walls of the excavation instead of from saturated soil beneath the UST.

**Excavated Soil.** Soil excavated from around the USTs was stockpiled into separate soil bins at each UST site. Four grab samples were collected and composited into one sample from each soil bin. There were two-20 cubic yard bins used for the Building 27 UST and four-20 cubic yard bins for the Building 161 UST. Therefore, a total of six soil samples were collected.

### 2.2.2 Analytical Parameters

Soil samples from the heating oil UST at Building 27 were analyzed for the following parameters:

- Total petroleum hydrocarbons as diesel (TPHD)/total petroleum hydrocarbons as motor oil (TPHMO) range organics/total petroleum hydrocarbons as gasoline (TPHG) range organics by Environmental Protection Agency (EPA) Modified Method 8015;
- Benzene, toluene, ethylbenzene, total xylenes, and fuel oxygenates by EPA Method 8260B;
- Total lead by EPA Method 6010;
- Napthalene by EPA Method 8270; and
- Methanol/ethanol by EPA modified Method 8015B.

Soil and groundwater samples from the suspected waste oil UST at Building 161 were analyzed for the following parameters:

- TPHD/TPHMO/TPHG range organics by EPA Modified Method 8015;
- Volatile organic compounds (VOCs), benzene, toluene, ethylbenzene, total xylenes, and fuel oxygenates by EPA Method 8260B;
- Oil and grease by EPA Method 1664;
- Cadmium, total chromium, lead, nickel, and zinc by 6010B;
- Polychlorinated biphenyls (PCBs) by EPA Method 8080; and
- Polynuclear aromatic hydrocarbons (PAHs) and semivolatiles (SVOCs) by EPA Method 8270.

Soil samples were collected around the Building 161 tank site to delineate suspected impacts from the UST. These soil samples were analyzed for the following parameters based on visual observations of the soil sampled in the tank excavation and analytical results from the waste oil-like substance removed from the UST:

- TPHD/TPHMO/TPHG range organics by EPA Modified Method 8015;
- Volatile organic compounds (VOCs), benzene, toluene, ethylbenzene, total xylenes, and fuel oxygenates by EPA Method 8260B;
- Cadmium, total chromium, lead, nickel, and zinc by 6010B;
- PCBs by EPA Method 8080; and
- PAHs and SVOCs by EPA Method 8270 and EPA Method 8310.

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### 3.0 RESULTS AND ANALYSIS

This section presents the investigation and laboratory results for the six potential fuel tank sites. Two USTs were located and removed. A total of four soil samples and one grab groundwater sample were collected from the excavations and four direct-push borings were advanced to delineate suspected contamination observed during the tank removal. This section also summarizes the disposal of IDW generated during the project.

#### 3.1 Underground Storage Tanks

The potential UST sites, consisting of Buildings 27, 45, 50, 111, and 161 were investigated following the methods described in the following sections.

##### 3.1.1 Results of Geophysical Surveys

NORCAL Geophysical Consultants (NORCAL) performed geophysical investigations at Building 161 on May 17, 18 and 24, 2004, at Buildings 50 and 111 on February 2, 2005, and Buildings 27 and 45 on October 25, 2005. Geophysical methods used include: metal detection (MD), electromagnetic line locating (EMLL), vertical magnetic gradient (VMG) and ground penetrating radar (GPR). Appendix B contains letter reports by NORCAL, dated March 17, 2005 and December 2, 2005 that describe the geophysical surveys. The NORCAL report on Building 161 dated May 17, 18 and 24, 2004 is included in the Fuel RA Report (BC, 2005a).

EMLL techniques are used to locate the magnetic field resulting from an electric current flowing on a line. Buried objects can be detected using MD techniques. MD is used to detect near surface metal objects such as rebar and USTs. VMG measures the vertical rate of change of the total field magnetic intensity and detects ferrous objects. GPR provides resolution and depth penetration characterizing the upper three to four feet of the subsurface. It is used to detect buried metallic objects. It is the combination of all three of these techniques that allows for the interpretation that an anomalies maybe a UST.



Photo 1. Building 50 and 111 GPR Survey. Photo taken 2/22/2005 looking east towards Bayshore Road the Carquinez Strait.

Vertical magnetic gradient anomalies were identified east of Building 50, but MD and GPR data suggest the anomalies are small amounts of localized buried metal debris or a suspected petroleum transfer line already marked on the asphalt in yellow paint (NORCAL letter, March 17, 2005). A photograph of the GPR survey at Building 50 is shown in Photo 1.

At Buildings 45, 50, and 111, no anomalies were found in the areas searched that suggested the presence of a UST. The areas searched at each site are shown in the NORCAL report (Appendix B).

NORCAL identified anomalies suggesting the presence of a UST and fuel lines at Building 27. But interference from an existing fence and reinforced concrete provided inconclusive results at the suspected location of the Building 161 UST. However during the geophysical survey, a tank fill pipe was located (Photo 2) and a waste oil-like substance was found in the UST. The tank limits were not determined due to interference of a concrete surface during the geophysical survey. Buildings 27 and 161 were investigated further as described in Section 3.1.2.



Photo 2. Building 161 UST fill pipe located in vault. Photo taken 5/28/2004. Fence (track shown in photo) overlies the UST.

### 3.1.2 Findings of Removal Activities

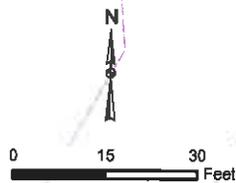
Test pits were excavated and tanks were removed at Buildings 27 and 161. The removal activities are described in detail below. Removal activities were overseen by Mr. Mike Rees of the Solano County Environmental Health Department.

**Building 27.** A 250-gallon single-walled steel tank was located near Building 27. The location of the UST correlated with the location of the geophysical anomaly. Based on the results of the analytical samples, the tank was used to hold fuel oil (C14 to C20) which is reported in this report as part of the diesel fuel range (C10-C24). The tank was located south of former Building 27, between the sidewalk and the edge of Jefferson Street (Figure 3-1, Photo 3). The tank was seven feet long and two and a half feet in diameter, and the ends of the tank were orientated approximately north-south.



Photo 3. Building 27 UST. Photo Taken 1/3/2006. Looking north towards the building.

Surface grass and soil were removed and the soil around the tank was excavated with a backhoe to uncover the tank. The top of the UST was encountered at 3 feet bgs. The UST had liquid inside that appeared to be consistent with rainwater. Approximately 220 gallons were pumped into 55-gallon drums.

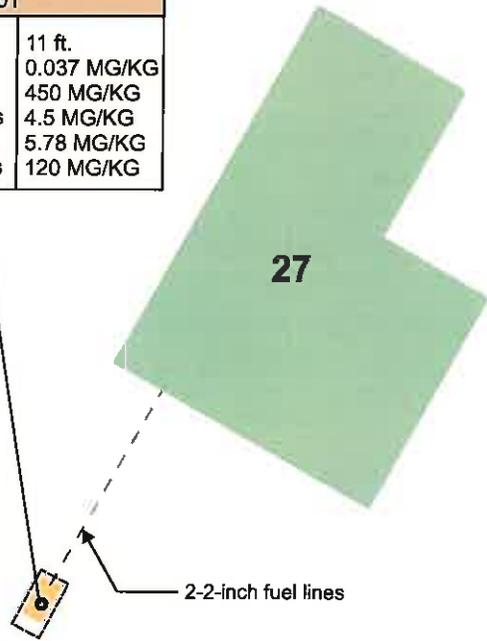


**Legend**

- Sample Location
- Roads
- Elevation Contours (100ft.)
- - - Elevation Contours (25ft.)
- - - UST Excavation limits
- Expanded SI Addendum Site
- Buildings
- USTs (removed, unless otherwise noted)

Sample Location	
Analyte	Depth (ft. bgs.)
Analyte Name	Value
■	Soil Sample

B027GR001	
Analyte	11 ft.
Acetone	0.037 MG/KG
Diesel Range Organics	450 MG/KG
Gasoline Range Organics	4.5 MG/KG
Lead	5.78 MG/KG
Residual Range Organics	120 MG/KG



PROJECT: 128336-005  
 DATE: 3/6/2006

TITLE: **Sampling Locations and Detected Results at Building 27**  
 SITE: **Benicia Arsenal, Benicia, California**

**Figure 3-1**

No groundwater was observed in the excavation. The tank appeared to have small holes from rust but was otherwise in good condition.

Two pipes were found connected to the tank, as shown in Photo 3. As the 2-inch product pipe was disconnected from the tank, fuel began to drain out. Approximately 1 gallon of fuel drained from the product pipe. The fuel was contained and transferred to a 55-gallon drum. Absorbent was placed inside the end of the pipes, see Photo 4. These pipes were traced into the basement of Building 27, pass through the basement wall, elbow down into the basement floor, and then exit the basement floor at the former location of the boiler. The location of the fuel lines are shown in a photo provided by the landowner of the former boiler (Photo 5).



Photo 4. Building 27 UST pipes. Photo taken 1/6/2006. Looking west.

The property owner requested that these pipes not be removed or backfilled. The landowner planned to use them as conduits to insert future irrigation pipes. Solano County approved the plan. As a result, the pipes were left in place.

Beneath the grass surface was brown silty clay to approximately 7 feet bgs. Dark gray to greenish weathered sandstone with brownish red layers overlaid gray, fractured sandstone encountered at 11 feet bgs. A petroleum odor was observed in the silty clay and within the weathered sandstone. A section of the excavation wall is shown in Photo 4.

The tank was removed from the excavation on 5 January 2006 under the supervision of the Solano County and the City of Benicia Fire Department and then transported to Ecology Control Industries, Inc. (ECI), located in Richmond, California.

The soil excavation appeared to be impacted by the fuel in the tank. A soil sample was collected at approximately the middle of the excavation at 90-inches bgs. The excavation was deepened to approximately 11 feet bgs to remove impacted soil. An additional soil sample was collected at the bottom of the over-excavation.



Photo 5. Former boiler in Building 27 basement.

**Building 161.** A 3,000-gallon single-walled steel tank was located at Building 161. Based on the results of the PA and Fuel RA, the tank was historically used to hold kerosene (typically between C4-C19) and the analytical results indicated hydrocarbons within the gasoline range (C6-C10), diesel fuel range (C10-C24) and motor oil (C20-C34) range hydrocarbons with predominantly diesel range hydrocarbons. The tank was located on the north side of the former building, as shown in Figure 3-2 and in Photo 6.

Surface concrete was removed using a saw-cutter and the soil around the tank was excavated with a backhoe to uncover the tank. The tank had several quarter size holes. A two-inch pipe existed above the UST with water draining into the excavation. It also appears that a second pipe ran to the UST from the Building 31 UST site (noted in Expanded SI Report on Building 31 removal activities). However, upon uncovering the Building 161 UST, there was a 6-inch pipe, likely a conduit for a smaller pipe. The second pipe from the Building 31 UST was not inside this conduit (Photo 7). During removal of the UST at Building 31, this pipe was extended above the restored pavement and capped. This pipe was backfilled with cement during the activities at the Building 161 UST and the extension removed to below grade.



Photo 6. Building 161 UST. Photo taken 1/6/2006. Looking east towards Jackson Street

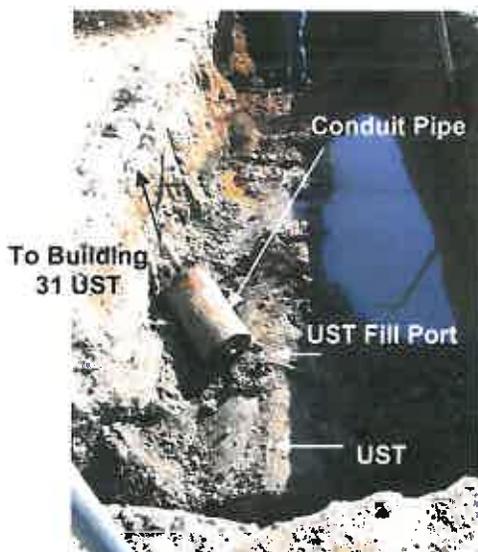


Photo 7. Building 161 UST fill pipe located in vault. Photo taken 1/3/2006.

Below the 6-inches of concrete at the surface were 6-inches of sand and another 6-inches of rebar-reinforced concrete. Under the concrete layers was alternating layers of gravelly sand, sandy gravel and sand to 5.5 feet bgs. Between 5.5 feet bgs and 7.5 feet bgs, a grayish green sand and gravel was encountered with a strong hydrocarbon odor. This sand and gravel is tank fill material. Groundwater was encountered at approximately 9.5 feet bgs. Static groundwater level rose to 4.5 feet bgs. The top of the UST was encountered at 4.3 feet bgs.

The tank contained an oil-like substance floating on top of water and viscous sludge at the bottom of the tank. The excavation contained water with an oily sheen which was pumped into a vacuum truck. Approximately 2,200 gallons were pumped into the vacuum truck: 2,100 gallons of liquid from the UST (emptied the tank) and 100 gallons of the oily sheen in the excavation on 4 January 2006.

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B161GB003	
Analyte	4.5 ft.
Acetone	0.026 MG/KG
Benzene	0.008 MG/KG
Cadmium	0.139 MG/KG
Chromium	36.7 MG/KG
Diesel Range Organics	660 MG/KG
Ethylbenzene	0.0024 MG/KG
Gasoline Range Organics	3.6 MG/KG
Lead	6.17 MG/KG
m,p-Xylene	0.0029 MG/KG
m,p-Xylenes	0.0029 MG/KG
Naphthalene	0.006 MG/KG
n-Butylbenzene	0.0066 MG/KG
Nickel	53.4 MG/KG
P-Cymene (p-Isopropyltoluene)	0.0045 MG/KG
Residual Range Organics	730 MG/KG
Toluene	0.0026 MG/KG
Zinc	68.7 MG/KG

B161GB004	
Analyte	4.5 ft.
Benzo(a)anthracene	0.14 MG/KG
Cadmium	0.177 MG/KG
Chromium	81.4 MG/KG
Chrysene	0.19 MG/KG
Lead	10.9 MG/KG
Nickel	63 MG/KG
Phenanthrene	0.029 MG/KG
Trichloroethene	0.0023 MG/KG
Zinc	94.6 MG/KG

B161GB002	
Analyte	4.5 ft.
Acetone	0.0056 MG/KG
Cadmium	0.12 MG/KG
Chromium	45.2 MG/KG
Lead	7.95 MG/KG
Nickel	23.7 MG/KG
Zinc	73.2 MG/KG

B161GB001	
Analyte	4.5 ft.
Acetone	0.0085 MG/KG
Cadmium	0.0538 MG/KG
Chromium	43.8 MG/KG
Lead	8.29 MG/KG
Nickel	17.8 MG/KG
Zinc	66.1 MG/KG

B161GR001	
Analyte	5 ft.
1,2,4-Trimethylbenzene	39 UG/L
1,3,5-Trimethylbenzene	7.7 UG/L
2-Butanone	56 UG/L
cis-1,2-Dichloroethene	3.2 UG/L
Diesel Range Organics	27000 UG/L
Ethylbenzene	4 UG/L
Gasoline Range Organics	6900 UG/L
Isopropylbenzene	7.6 UG/L
Lead	0.00244 MG/L
m,p-Xylene	30 UG/L
m,p-Xylenes	30 UG/L
n-Butylbenzene	14 UG/L
n-Propylbenzene	15 UG/L
o-Xylene	7.1 UG/L
PCB-1254	5.6 UG/L
PCB-1260	1.6 UG/L
Residual Range Organics	18000 UG/L
Sec-Butylbenzene	8.3 UG/L
Toluene	5 UG/L
Trichloroethene	2.3 UG/L

B161GR001	
Analyte	3.7 ft.
Acetone	0.0096 MG/KG
Cadmium	0.133 MG/KG
Chromium	53.9 MG/KG
Diesel Range Organics	14 MG/KG
Gasoline Range Organics	1.5 MG/KG
Lead	9.08 MG/KG
Nickel	29.4 MG/KG
Residual Range Organics	17 MG/KG
Zinc	91.2 MG/KG

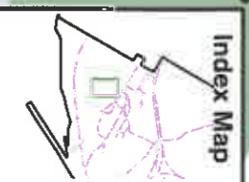
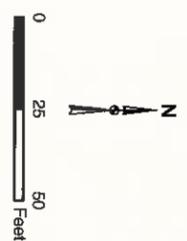
B161GR002	
Analyte	3.7 ft.
Acetone	0.019 MG/KG
Cadmium	0.102 MG/KG
Chromium	52.6 MG/KG
Diesel Range Organics	70 MG/KG
Lead	8.31 MG/KG
Nickel	25.2 MG/KG
Residual Range Organics	7.7 MG/KG
Zinc	67.9 MG/KG

B161HP001	
Analyte	49 ft.
1,1-Dichloroethene	0.75 UG/L
1,2-Dichlorobenzene	0.68 UG/L
1,2-Dichloroethane	0.46 UG/L
1,2-Dichloropropane	0.00265 MG/L
Antimony	0.00681 MG/L
Arsenic	0.131 MG/L
Barium	201 MG/L
Calcium	0.24 UG/L
Carbon Disulfide	0.85 UG/L
Chlorobenzene	23 UG/L
cis-1,2-Dichloroethene	9.13 MG/L
Diesel Range Organics	390 UG/L
Gasoline Range Organics	23 UG/L
Iron	0.67 UG/L
Isopropyl ether	139 MG/L
Magnesium	2.74 MG/L
Manganese	1590 MG/L
Molybdenum	0.0445 MG/L
Nickel	0.0372 MG/L
Potassium	219 MG/L
Residual Range Organics	2.35 MG/L
Sodium	91 UG/L
Sulfur	11950 MG/L
trans-1,2-Dichloroethene	3.3 UG/L
Trichloroethene	2 UG/L
Vinyl Chloride	0.27 UG/L
Zinc	0.0249 MG/L

B161HP002	
Analyte	19 ft.
1,1-Dichloroethane	0.43 UG/L
1,1-Dichloroethene	4.5 UG/L
1,2-Dichloroethane	0.76 UG/L
2-Butanone	0.417 MG/L
Acetone	0.68 UG/L
Barium	610 MG/L
Benzene	0.51 UG/L
Calcium	0.64 UG/L
Carbon Disulfide	0.98 UG/L
Chloromethane	230 UG/L
cis-1,2-Dichloroethene	0.021 MG/L
Cobalt	0.0908 MG/L
Diesel Range Organics	96 UG/L
Iron	0.0908 MG/L
Magnesium	959 MG/L
Manganese	12.5 MG/L
Molybdenum	0.0214 MG/L
Nickel	0.0345 MG/L
Potassium	115 MG/L
Residual Range Organics	110 UG/L
Sodium	8850 MG/L
Sulfur	0.22 UG/L
Toluene	12 UG/L
trans-1,2-Dichloroethene	460 UG/L
Trichloroethene	0.41 UG/L
Vinyl Chloride	0.61 UG/L

**Legend**

- Sample Locations
- Dry - no groundwater
- Area I boundary
- Lowland/Highland Boundary
- Storm Drains (1958) - arrows point in direction of flow
- Railroads
- Roads
- Elevation Contours (100ft.)
- Elevation Contours (25ft.)
- UST Excavation limits
- USTs (removed, unless otherwise noted)
- PA Sites
- Buildings
- Lowlands
- Former Army building features (unless otherwise noted)



Just above groundwater at approximately 1 to 2 feet bgs, was a strong petroleum odor. The excavation is shown in Photo 8.

The steel tank dimensions were 22 feet long by 5 feet in diameter, equating to 3,400 gallons (Photo 9). It was removed from the excavation on 5 January 2006 under the supervision of the Solano County and the City of Benicia Fire Department and then transported to ECI along with the Building 27 UST.

### 3.1.3 Sampling Activities

At the Building 27 site, one soil sample (B027GR001-A-S01) was collected from under the 250-gallon tank per Solano County protocols. After the UST was removed, the soil in the bottom of the excavation (approximately 9 feet bgs) was greenish in color and had a moderate petroleum hydrocarbon odor. The soil in the bottom of the excavation was over-excavated to approximately 11 feet bgs. Another soil sample (B027GR001-A-S02) was collected from the

center of the over-excavation. The sample location is shown on Figure 3-1.

Groundwater was encountered at the Building 161 tank site, therefore two soil samples (B161GR001 and B161GR002) were collected from the east and west ends of the 3,400 gallon tank excavation per Solano County protocols. Soil samples were collected approximately 6 inches above the soil/groundwater interface, which were at approximately 4 feet bgs. In addition, one groundwater sample was collected from the water in the excavation. The sample locations are shown on Figure 3-2.

A hydrocarbon odor was observed on the far west side of the excavation where soil sample B161GR002 was collected. As part of a rapid decision strategy used in the Expanded SI, the team did not wait for the results from the UST excavation samples. Four soil borings (B161GB001 through B161GB004) were advanced the day after the UST was removed. The boring locations are shown on Figure 3-2.

Groundwater samples were not collected from the four soil borings because the combination of the results from the Expanded SI groundwater samples (BC, 2005b) surrounding the UST and the grab



Photo 8. Water in excavation at Building 161. Approximate depth to water = 4.5 feet. Photo taken 1/6/2006 looking east. Jackson Street is on the left side of the photo.



Photo 9. Building 161 UST. Photo taken 1/5/2006.

groundwater sample collected from the UST excavation was enough data to delineate any impacted groundwater. Results from the Expanded SI borings are discussed in the Expanded SI Report (BC, 2005b).

### 3.1.4 Analytical Results

Analytical results for parameters detected in soil samples at Building 27 are presented in Figure 3-1. Appendices C through E present a legend and the analytical laboratory reports for these samples.

Comparisons to soil results were made to RWQCB ESLs. For metals in soil, ambient concentrations were also considered. A recent update of the ambient concentrations has been conducted and will be included in the Arsenal risk assessment.

Comparisons of groundwater results to MCLs were used as a criterion for possible drinking water sources at sites located in the highlands since groundwater quality meets the total dissolved solids (TDS) (less than 3,000 milligrams per liter [mg/L]) or 200 gallon per day criteria (State Board Resolution No. 889-63, Regional Board Resolution No. 89-39, and the Basin Plan). If maximum contaminant levels (MCLs) were not established for a particular analyte, then the representative RWQCB ESL was used. However, MCLs are not appropriate in the lowland areas, where TDS is high (>3,000 mg/L). In the lowland areas, comparison criteria of RWQCB ESLs (RWQCB, 2005) were used for groundwater categorized as not a source of drinking water. For the sites sampled for this addendum report, Building 27 is located in the highlands and Building 161 is located in the lowlands.

**Building 27.** During tank removal at Building 27, the soil at the bottom of the excavation was visibly stained at 7 feet bgs and sampled (B027GR001-A-S01). Additional soil was excavated and another soil sample (B027GR001-A-S02) was collected at the bottom of the excavation at 11 feet bgs. Detected soil results from both samples collected are shown on Table 3-1. Since the first soil sample was removed during the over-excavation only the second and deeper soil sample is presented on Figure 3-1.

Diesel fuel is only analyte that exceeded its RWQCB ESL value (100 milligrams per kilogram [mg/kg]) with a concentration of 450 mg/kg. The excavation could not be over-excavated deeper than 11 feet bgs because sandstone was increasing in competency and the backhoe could not dig anymore. Visual observations indicated that the remaining hydrocarbons were found within the fractures of the sandstone.

There was no groundwater encountered at this site. Therefore, there is no potential impact from the residual hydrocarbons from fractured sandstone to reach groundwater.

Table 3-1. Detected Results in B027GR001

Analyte	Concentration (mg/kg)			
	B027GR001-A-S01* (depth: 7 to 7.5 feet bgs)	B027GR001-A-S02 (depth: 11-12 feet bgs)	RWQCB ESL	Ambient Concentration Limit
Acetone	0.026	0.037	0.5	NE
Lead	3.6	5.78	750	36.8
Diesel range (C10-C24)**	<b>2,500</b>	<b>450</b>	100	NE
Gasoline range (C6-C10)	6.2	4.5	100	NE
Motor oil range (C20-C34)	570	120	1,000	NE

**BOLD** indicates concentration exceeds ESL

bgs – below ground surface

mg/kg – milligrams per kilogram

NE – Not established

ESL – Environmental Screening Level for deep soil (>3 meters) where groundwater is a potential source of drinking water, residential land use (RWQCB, 2005)

\*Removed during the over-excavation of the pit

\*\* fuel oil (C14 to C20), the fuel used in the Building 27 UST, coincides within the diesel range

**Building 161.** Soil samples collected from the north and west walls of the excavation (B161GR001 and B161GR002) did not exceed their respective commercial/industrial RWQCB ESLs. Sample locations and results are shown on Figure 3-2.

During tank removal, the west side of the excavation appeared to be impacted with hydrocarbons. Four soil borings (B161GB001, B161GB002, B161GB003, and B161GB004) were advanced surrounding the suspected impact (Figure 3-2). The borings on the north and west side of the excavation (B161GB001 and B161GB002) contained very low to no concentrations above the method detection limits (MDLs) for petroleum hydrocarbons. The borings south of the excavation, B161GB003 and B161GB004, did contain petroleum hydrocarbons and/or TCE and are shown in Table 3-2.

Diesel fuel range hydrocarbons were detected above the RWQCB ESL of 500 mg/kg in boring B161GB003 (660 mg/kg). A downgradient location, B161GB004, was sampled and diesel fuel range hydrocarbons were not detected above laboratory method detection limits. Therefore, diesel range hydrocarbons have been delineated. There was no gasoline range hydrocarbons detected in soil around the UST. Kerosene was indicated by the Army as the fuel stored in the UST. Typically its range is between C4-C19, which coincides with the gasoline range (C6-C10) and diesel range (C10-C24). Gasoline range hydrocarbons were not reported above the MDLs in any of the soil samples collected from the UST excavation. Therefore, the presence of kerosene is difficult to

substantiate. It is possible that the tank leaked kerosene and the kerosene has degraded to concentrations below MDLs. Otherwise, the results indicate a hydrocarbon in the diesel range. It was possible that UST may have contained diesel fuel at a later date.

Table 3-2. Petroleum Hydrocarbon, Lead, and TCE Results in Soil at Former UST 161

Analyte	B161GB001 (mg/kg)	B161GB002 (mg/kg)	B161GB003 (mg/kg)	B161GB004 (mg/kg)	RWQCB ESL (mg/kg)	Ambient Concentration Limit (mg/kg)
Sample Depth is 4.5 feet bgs						
Lead	8.29	7.95	6.17	10.9	750	36.8
Trichloroethene	< 0.0022	<0.0022	<0.0022	0.0023	0.73	NE
Gasoline range (C6-C10)**	<0.6	<0.56	3.6	<0.6	400	NE
Diesel range (C10-C24)**	4*	<2.7	<b>660</b>	<2.6	500	NE
Motor oil range (C20-C34)	<2.7	<2.6	730	<2.5	1,000	NE

**BOLD** indicates concentration exceeds BSL

mg/kg- milligrams per kilogram

NE – Not established

ESL – Environmental Screening Level for shallow soil (<3 meters) where groundwater is NOT a potential source of drinking water, industrial/commercial land use (RWQCB, 2005)

bgs – below ground surface

\* reported in the duplicate sample

\*\*kerosene (typically between C4-C19), a product allegedly used in the Building 27 UST, coincides within the gasoline and diesel range

Lead was reported in all of the soil samples but none of the concentrations exceeded the RWQCB ESL or its ambient concentration limit (Table 3-2). Likewise, none of the other analytes reported in soil in the UST excavation or the other borings advanced during this addendum investigation exceeded their respective RWQCB ESLs.

Grab groundwater sample results, collected from the excavation sample (B161GR001), is shown on Figure 3-2 and Table 3-3. Petroleum hydrocarbons, diesel fuel, gasoline, and motor oil are all above their respective RWQCB ESLs. The grab groundwater sample also contained two PCBs congeners, 1254 and 1260, which are above their RWQCB ESLs. No other analyte was detected above its RWQCB ESL. Groundwater samples were not collected from the four soil borings advanced around the suspected soil impact in the UST excavation. However, groundwater samples were collected downgradient of Building 161 as part of the Expanded SI (BC, 2005b). Borings B118HP001, B118HP002, B161HP001, and B161HP002 were advanced and sampled downgradient of former Building 161. Results are discussed in the Expanded SI Report (BC, 2005b).

<b>Table 3-3. Results above ESL in Grab Groundwater at Former UST 161</b>		
Analyte	B161GB001 (µg/L)	RWQCB ESL (µg/L)
Diesel fuel range (C10-C24)	<b>27,000</b>	640
Gasoline range (C6-C10)	<b>6,900</b>	500
Motor oil range (C20-C34)	<b>18,000</b>	640
PCB-1254	<b>5.6</b>	0.014
PCB-1260	<b>1.6</b>	0.014

**BOLD** indicates concentration exceeds its ESL  
 µg/L - micrograms per liter  
 ESL - Environmental Screening Level for groundwater is not a potential source of drinking water, industrial/commercial land use (RWQCB, 2005)

PCBs were reported in groundwater from the UST excavation and not in the soil samples. PCBs were added to the analyte list for the soil samples because PCBs were identified in the product sample collected from the UST. This sample was analyzed for waste characterization. Methylene chloride, TCE, PCB-1254 and PCB-1260 were detected in this sample (Table 3-4). The density of the product sample is 0.94 grams per millimeter which means it is lighter than water. The product was observed floating on water which substantiates that a light aqueous phase liquid was contained in the tank, like kerosene or diesel fuel. The presence of VOCs and PCBs in the product sample means they have co-eluted in the sample. TCE and the PCB congeners were also reported in the grab groundwater sample from the tank excavation (Figure 3-2).

<b>Table 3-4. Building 161 UST Product Sample Results</b>		
Analyte	Result (µg/kg)	% of product
Methylene chloride	28,000	0.003%
Trichloroethene	930,000	0.093%
PCB-1254	27,000	0.003%
PCB-1260	8,200	0.001%
Total		0.099%

µg / kg- micrograms per kilogram = parts per billion

According to the World Health Organization (1993), the commercial production of the PCBs began in 1930, and, during the 1930s, as dielectric and heat-exchange fluids and in a variety of other applications. Now they are almost entirely restricted to use in closed systems, such as isolating oils in transformers, capacitors, and other electrical systems, and as a heat transfer medium and hydraulic liquid. They have become widely distributed in the environment throughout the world, and are persistent and accumulate in food webs. All congeners of PCBs are lipophilic and have very low water solubility (World Health Organization, 1993).

The presence of PCBs in the sample collected from the Building 161 UST is not well understood. Based on the historical use of PCBs provided above and the use of electrical equipment at the Arsenal, it is likely that this equipment contained PCB-laden oil; however, how it got into the UST is a mystery. Since PCBs have a very low solubility and PCBs were not reported in the soil around the UST and the contents of the UST have been removed, there is little to no chance that PCBs will be in groundwater. Therefore, no further action is recommended for the presence of PCBs associated with the contents of the Building 161 UST.

### 3.2 Investigative Derived Waste Disposal

IDW generated as part of the field effort included soil, liquids (including tank contents and decontamination rinsate from sampling equipment), asphalt and concrete, tanks and associated piping from tank excavation activities, and disposable protective clothing and ground covers.

Table 3-5 presents the quantities of soil IDW generated during this investigation. Soil was containerized in 20-yard bins and stored at secured temporary waste staging area next to the Building 161 site, at Building 103. Four grab samples were collected and composited into one sample from each of the soil containers (one at each UST site). IDW samples were analyzed for the following parameters:

- TPHD, TPHMO, and TPHG by EPA Modified Method 8015;
- VOCs by EPA Method 8260B;
- Total chromium, nickel, and zinc by 6010B, cadmium and lead by 6010B ICP trace; and
- PCBs by EPA Method 8082.

Table 3-5. Quantities of IDW		
Location	Quantity	Waste Classification
Building 27	18.87 tons 220 gallons	Non-hazardous waste, solid (soil) Non-hazardous waste, liquid (includes decontamination water)
Building 161	46.97 tons 2,200 gallons	Non-hazardous waste, solid (soil) F001 hazardous waste, liquid (includes 100 gallons of any groundwater from Building 161 UST excavation)

Based on analytical results, IDW soil from the Building 27 excavation contained low levels of petroleum hydrocarbons and was manifested as non-hazardous soil. IDW soil from the Building 161 excavation contained petroleum hydrocarbons, VOCs, and total lead. Phillips Services Corporation of San Martin, CA transported the non-hazardous soil to the Waste Management Facility, Altamont Landfill, in Livermore, CA. Soil IDW waste manifests are included in Appendix F.

One grab product sample was collected from the oily substance within the Building 161 UST and analyzed for the PCBs by EPA 8082 and halogenated organics by EPA 8260B. Based on analytical results (Table 3-4), the tank contents were manifested as F001 RCRA hazardous. Approximately 2,100 gallons of liquid from the tank and approximately 100 gallons of oily water in the excavation was removed using a vacuum truck. The liquid was transported by Phillips Services Corporation to Burlington Environmental, located in Tacoma, Washington.

One grab water sample was collected from the four 55-gallon drums of water pumped from the Building 27 UST. Decontamination water from Expanded SI Addendum activities were combined with this water. The sample was analyzed for diesel range and motor oil range hydrocarbons by EPA Modified Method 8015. Results indicated a concentration of 65,000 µg/L diesel range hydrocarbons and 9,200 µg/L motor oil range hydrocarbons. The water was profiled as non-hazardous and transported by Phillips Services Corporation to Tacoma, Washington. The water IDW waste manifests are included in Appendix F.

Concrete was removed from the surface at Building 161 and transported to a recycling facility by Geocon. ECI transported the fuel storage tanks and associated piping to their recycling and disposal facility in Richmond, California. ECI also cleaned residual solids from the tanks as part of its recycling activities. Tank manifests and tank destruction certificates are included in Appendix G.

Excess disposable wastes derived from sampling, such as gloves, and bailers were disposed by BFI, which provides local garbage disposal service for the area.

### **3.3 Geotracker**

Analytical data with the coordinate location of each UST removed was submitted electronically into the Geotracker database.

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#### 4.0 DATA USABILITY

This section summarizes the data quality assessment of analytical results reported for soil, and groundwater samples collected during this investigation. Validation and/or verification of the laboratory analytical data was performed per the criteria specified in the Benicia QAPP (FA/BC, 2001).

Soil, and water samples were collected by Brown and Caldwell in one mobilization (January 2006). Soil and groundwater samples were delivered by overnight courier to EMAX Laboratories, Inc. Torrance, California. Data was received in both hard copy and electronic formats.

Individual analytical results were qualified during the data verification procedures. The percentage of results that are qualified as estimated or rejected due to QC deficiencies is an indication of the overall data quality for a given analytical method. Table 4-1 provides a summary of the number of results that were qualified by method.

**Table 4-1. Analytical Completeness by Method**

Method	Parameter	Samples Analyzed (N+FD)	Analytes per sample	Number of results				Completeness	
				Total	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	Percent usable	Percent quantitative*
E1664	Oil and Grease	2	1	2	0	0	0	100%	100%
SW6010B	Metals	9+1	5	42	0	1	8	100%	97.6%
SW8015B	GRO, DRO, RRO, ethanol, methanol	9+1	3/5	40	0	0	3	100%	100%
SW8082	PCBs	7+1	7	56	0	0	0	100%	100%
SW8260B	Volatiles	9+1	71	710	0	1	22	100%	99.9%
SW8270C	Semivolatiles	6	variable	266	2	49	0	99.2%	81.6%
SW8310	PAHs	3+1	16	64	0	1	1	100%	98.4%

\* Note: Estimations due solely to results <PQL do not affect the calculated completeness  
 Calculations do not include any required field or laboratory QC samples, except field duplicates.  
 DRO = diesel range organics  
 GRO = gasoline range organics  
 FD = field duplicate samples  
 N = normal environmental samples  
 RRO = residual range or motor oil range organics

In general, the results are of acceptable quality and are usable for their intended purpose. All holding time requirements were met. No global problems were identified. Results for the semivolatiles, benzoic acid and hexachlorcyclopentadiene in sample B161GR001-A-W01 have been rejected due to very low matrix spike recoveries. These results are not usable for any purpose. All methods met the analytical completeness goals with a high percentage of unqualified results (greater than 80 percent).

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## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The following section summarizes the results of this addendum Fuel RA.

- At Buildings 45, 50, and 111 no geophysical anomalies were reported in the areas searched that suggested the presence of a UST.
- A geophysical anomaly was identified at Building 27 that suggested the presence of a UST. A 250-gallon single-walled steel tank was located and removed at Building 27.
- A fill pipe was found at Building 161 indicating the location of the UST. A 3,400-gallon single-walled steel tank was removed near Building 161.
- ROE was denied by the landowner at Building CL2.

### 5.1 Recommendations

Additional investigations are warranted to identify and/or remove USTs at Building CL2. An investigation at this location was not performed because an ROE agreement was not reached.

Geophysical and visual investigations determined that there were no USTs found at Building 45, Building 50, or Building 111. No further DoD action is indicated at these locations.

Fractured sandstone and rainwater from the Building 27 UST contained diesel range hydrocarbons consistent with fuel oil. There is a residual impact at a concentration of 450 mg/kg in the fractured sandstone that exceeds the RWQCB ESLs of 100 mg/kg. Most of the impacted soil/weathered sandstone was removed to a depth 11 feet bgs. Since there are physical limitations in trying to remove the remaining residuals within the fractures of the sandstone and there is no groundwater being impacted at this site, USACE recommends no further action.

Suspected DoD sources appear to have impacted soil on the south side of the former UST at Building 161; however, the impact has been delineated. Diesel range hydrocarbons are present above its ESL in soil samples south of the former Building 161 UST. Groundwater is impacted with petroleum hydrocarbons but the extent has been delineated. The outcome of the petroleum DoD-related compounds will be evaluated in the Feasibility Study. Non-petroleum related compounds will be evaluated in a risk assessment.

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## 6.0 REFERENCES

- Brown and Caldwell. 2005a. *Fuel Storage Removal Action Report*. Final. April.
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- California Regional Water Quality Control Board. 2005. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. Interim Final. February.
- Forsgren Associates/Brown and Caldwell. 2004. *Preliminary Assessment Report for the Former Benicia Arsenal*. Final. Prepared for U.S. Army Corps of Engineers, Sacramento, California. March.
- Forsgren Associates/Brown and Caldwell. 2001. *Quality Assurance Project Plan for the Benicia Arsenal*. Prepared for U.S. Army Corps of Engineers, Sacramento, California. November.
- NORCAL Geophysical Consultants, Inc. 2005a. *Geophysical Surveys Former Buildings 50 and 111*. March 17.
- NORCAL Geophysical Consultants, Inc. 2005b. *Geophysical Surveys. Benicia Arsenal Environmental Restoration Project*. December 2.
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**APPENDIX A**

**Background Details of Fuel Storage Tank Sites**

## PA Summary

DoD Site #

27

Area: I

NDAI    FAR    IRR    Potential OE

### SITE DESCRIPTION

<b>Parcel # (APN)</b>	<b>Owner Name</b>	<b>Site Address</b>	
0080-150-200	ROBBINS J REED	1063 JEFFERSON STREET	
<b>Year Bldg. Built</b>	1861	<b>Year Bldg. Removed</b>	Not applicable
		<b>Site Area (SqFt)</b>	7725
<b>Current Land Use</b> Mixed Use-Lower Arsenal			

### OPERATIONAL HISTORY

**DoD Use Type**

Housing

**DoD Uses**

Captain's Quarters

**Secondary DoD Uses**

Fuel Type

**Post-Army Uses**

Residence

**Flooring**

Wood

**Disposal Information**

None Listed

**Activities (inside/outside)**

Inside

**Records Research Report Addenda Data**

250-gallon fuel oil tank and burner installed in October 1928.

**Records Research Report Comments**

Located east of Buildings 25 and 26.

### ENVIRONMENTAL SUMMARY

**Vessel Inventory**

	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 1	UST	US Army	250	Steel	Fuel oil	1928	1/5/2006	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Unknown if tank is still present.

**Furthest Stage of Environmental Investigation**

RI

### COMMENTS

A geophysical survey performed in December 2005 identified a fuel oil UST on the south side of the property. A 250-gallon steel UST was uncovered. The UST appeared to be in good condition with a few minor holes. Rainwater was removed from the tank. Soil was visibly impacted beneath the UST. Additional soil and sandstone was over excavated to a depth of 11 feet bgs. Residual hydrocarbons were reported in the fractures of the sandstone. There is no groundwater at the site. Therefore, there is no threat to groundwater.

## PA Summary

**DoD Site #**

27

**Area:** I

### RECOMMENDATIONS

No further DoD action is indicated for this site.

## PA Summary

DoD Site #

45

Area: I

NDAI    FAR    IRR    Potential OE

### SITE DESCRIPTION

<b>Parcel # (APN)</b>	<b>Owner Name</b>	<b>Site Address</b>		
0080-150-130	WATSON KAREN ANN	983 GRANT STREET		
<b>Year Bldg. Built</b>	1872	<b>Year Bldg. Removed</b>	Not applicable	<b>Site Area (SqFt)</b> 10239
<b>Current Land Use</b>	Mixed Use-Lower Arsenal			

### OPERATIONAL HISTORY

**DoD Use Type**

Housing

**DoD Uses**

Enlisted Men's Barracks

**Secondary DoD Uses**

Fuel type

**Post-Army Uses**

None Identified

**Flooring**

Wood

**Disposal Information**

None Listed

**Activities (inside/outside)**

Outside

**Records Research Report Addenda Data**

400-gallon fuel oil tank and burner installed in 1929 (ref 130).

**Records Research Report Comments**

Located north of Grant Street at Roosevelt

### ENVIRONMENTAL SUMMARY

**Vessel Inventory**

	Type	Original Owner	Size (Gal)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 1	UST	US Army	400	Unknown (likely steel)	Fuel oil	1929	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments:

**Furthest Stage of Environmental Investigation**

SI

### COMMENTS

Unknown what happened to the fuel tank. No investigation could be conducted during the Fuel only investigation in 2002 and the UST RA Investigation in June 2004 due to the landowner's renovation of the building (ref 1063). In December 2005, a geophysical investigation was conducted to determine if a UST is present. No anomalies were found in the areas searched that suggested the presence of a UST.

## PA Summary

DoD Site #

45

Area: I

### RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

## PA Summary

**DoD Site #**

111

Area: M

 NDAI    FAR    IRR    Potential OE**SITE DESCRIPTION**

Parcel # (APN)	Owner Name	Site Address			
0080-140-050	BENICIA CITY				
Year Bldg. Built	Pre-1945	Year Bldg. Removed	1957-1961	Site Area (SqFt)	1728
Current Land Use	Industrial-General				

**OPERATIONAL HISTORY****DoD Use Type**

Heavy Equipment Yard

**DoD Uses**

Heavy Equipment Shop

**Secondary DoD Uses**

Unknown

**Post-Army Uses**

None Identified

**Flooring**

Unknown

**Disposal Information**

None Identified

**Activities (inside/outside)**

Outside/Inside

**Records Research Report Addenda Data**

(According to ref 167, the building was present in 1957). Presumably, building was demolished by DoD prior to 1961, because the buildings is not listed in the 1961 Facility Data Sheet (ref 196), and no building remains today.

**Records Research Report Comments**

The third sanitary line handled waste from Buildings 50, 111, and 136 and discharged at Point D (ref 405). Building 136 is shown attached to the east side of Building 111. Records research offered little detail regarding operations in the heavy equipment yard.

**ENVIRONMENTAL SUMMARY****Furthest Stage of Environmental Investigation**

SI

**COMMENTS**

Records Research is unclear on site activities. Unknown what happened to the shop. During the 2004 Expanded Site Inspection investigation, downgradient groundwater and soil gas samples were collected. The only analyte detected was MTBE at a concentration of 0.32 ug/L in groundwater. The army never used fuel with MTBE, therefore, this is a post-Army release. A geophysical survey was performed on behalf of USACE on 18 February 2005 to determine if the Army tanks were USTs. The area was surveyed with vertical magnetics, line-locators and ground penetrating radar. The area surveyed was around the footprint of the existing building. The geophysical survey found a reinforced concrete pad, some anomalies that were confirmed by GPR to likely be buried debris, and a buried petroleum pipeline. Otherwise, there were no other anomalies that would indicate the presence of any USTs in this area.

## PA Summary

DoD Site #

111

Area: M

### RECOMMENDATIONS

No additional DoD action is indicated.

## PA Summary

**DoD Site #**

161

**Area:** I

NDAI    FAR    IRR    Potential OE

**SITE DESCRIPTION**

<b>Parcel # (APN)</b>	<b>Owner Name</b>	<b>Site Address</b>	
0080-280-010	HISTORIC ARSENAL PARK LTD	920 JACKSON STREET	
<b>Year Bldg. Built</b>	Pre-1945	<b>Year Bldg. Removed</b>	1981-1998
		<b>Site Area (SqFt)</b>	11200
<b>Current Land Use</b>	Mixed Use-Lower Arsenal		

**OPERATIONAL HISTORY**

**DoD Use Type**  
Industrial/Manufacturing Shops

**DoD Uses**  
Motor Cleaning Building/Steam Cleaning/Paint Spray/Fuel Storage

**Secondary DoD Uses**  
Fuel/Paint/Fuel Storage Facilities

**Post-Army Uses**  
1967-1981: International Manufacturing Company for office space and a facility for the manufacture and storage of pumps, water systems, swimming pools, automobile wheels and accessories (ref 425, 587, 702).

**Flooring**  
Concrete

**Disposal Information**  
Drawing 4619, dated 6 October 1949 identifies service pit in the floor of paint booth and the sump connected to the storm drain along the eastern side of the building.

**Activities (inside/outside)**  
Inside and Outside

**Records Research Report Addenda Data**  
A drawing dated 31 May 1944 (ref 609) shows a kerosene storage tank (adjacent to the north side of the building), paint spray booth, degreaser, steam cleaner, storm drains, catch basins and underground gas lines (ref 609). Record Research identified a dip tank line, stripping tank, acid dip tank (2), water dip tank (2), neutralizer tank (ref 714). Drawing 4619, dated 6 October 1949 identifies service pit in the floor of paint booth. The pit measured 10x3.5 feet and had a 6-inch drain that ran directly to the storm drain. A 1952 survey by Brown and Caldwell indicated the building operations included steam cleaning of large components, dipping and painting (ref 405). Guide Sheet A dated 1957 stated the building had been constructed in a temporary-type manner on reclaimed tidelands without pilings. Drawing 6105, dated 28 August 1958 identifies 4 catch basins and 4 drain trenches proposed as part of the building rehabilitation. Drawing 6270, dated 22 Sept. 1959 identifies boiler house, spray paint booth, and proposed drying oven. 1962 vacate date (ref 713).

**Records Research Report Comments**  
Demolished by Benicia Industries. Temporary construction of building resulted in uneven settling, creating excessive stresses in trussed members to the extent that numerous failures occurred. Floors sank so badly that the floor drains could not operate (ref 54). A 1952 report indicated that there were sewer system deficiencies in the area of Buildings 56, 57, 89, and 161 which frequently needed rodding to keep the sewage lines open. Drain trenches and foundation remain.

**ENVIRONMENTAL SUMMARY**

**Vessel Inventory**

Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army

## PA Summary

**DoD Site #**

161

Area: I

**Vessel Inventory**

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 1	UST	US Army	3000	Steel	Kerosene, Diesel?	1945	1/5/2006	Unknown	<input type="checkbox"/>
Uses: Fuel Storage Comments: Assumed size based on reports of a similar kerosene tank at adjacent Building 103 that was not found in 1999 but likely this tank at Building 161 (FA/BC Ref 1077). Pre-1944 based on Reference 609, 1944 Map									
Vessel # 2	Trench	US Army	0	Unknown	Wastes	1945 -1958	Present	Unknown	<input type="checkbox"/>
Uses: Drain Trench Comments: Constructed with a catch basin at each end. Still exists. Pre-1958 based on Reference 610, 1958 Drawing.									
Vessel # 3	Trench	US Army	0	Unknown	Wastes	1945 -1958	Present	Unknown	<input type="checkbox"/>
Uses: Drain Trench Comments: Constructed with a catch basin at each end. Still exists. Pre-1958 based on Reference 610, 1958 Drawing.									
Vessel # 4	Trench	US Army	0	Unknown	Wastes	1945 -1958	Present	Unknown	<input type="checkbox"/>
Uses: Drain Trench Comments: Constructed with a catch basin at each end. Still exists. Pre-1958 based on Reference 610, 1958 Drawing.									
Vessel # 5	Trench	US Army	0	Unknown	Wastes	1945 -1958	Present	Unknown	<input type="checkbox"/>
Uses: Drain Trench Comments: Constructed with a catch basin at each end. Still exists. Pre-1958 based on Reference 610, 1958 Drawing.									
Vessel # 6	Pit	US Army	0	Unknown	Wastes	Pre-1949	Present	Unknown	<input type="checkbox"/>
Uses: Service Pit Comments: Still exists. Pre-1949 based on Reference 612, 1949 Drawing.									
Vessel # 7	AST	US Army	0	Unknown	Solvents	Pre-1944	Unknown	Unknown	<input type="checkbox"/>
Uses: Degreasing Dip Tank Comments: Pre-1944 based on Reference 609, 1944 Drawing.									
Vessel # 8	Booth	US Army	0	Unknown	Paints	Pre-1944	Not present	Unknown	<input type="checkbox"/>
Uses: Paint Booth Comments: Pre 1944 based on Reference 609, 1944 Drawing.									
Vessel # 9	AST	US Army	0	Unknown	Unknown	Pre-1957	Not present	Unknown	<input type="checkbox"/>
Uses: Stripping Tank Comments: Pre-1957 based on Reference 714, Equipment List for New Facility. Tank is listed as being 3' deep.									
Vessel # 10	AST	US Army	0	Unknown	Water	Pre-1957	Not present	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Pre-1957 based on Reference 714, Equipment List for New Facility. Tank is listed as being 3' deep.									
Vessel # 11	AST	US Army	0	Unknown	Water	Pre-1957	Not present	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Pre-1957 based on Reference 714, Equipment List for New Facility. Tank is listed as being 3' deep.									
Vessel # 12	AST	US Army	0	Unknown	Acid	Pre-1957	Not present	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Pre-1957 based on Reference 714, Equipment List for New Facility. Tank is listed as being 3' deep.									
Vessel # 13	AST	US Army	0	Unknown	Acid	Pre-1957	Not present	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Pre-1957 based on Reference 714, Equipment List for New Facility. Tank is listed as being 3' deep.									

## PA Summary

**DoD Site #**

161

**Area:** I**Vessel Inventory**

Vessel #	Type	Original Owner	Size (G-l)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
14	AST	US Army	0	Unknown	Unknown	Pre-1957	Not present	Unknown	<input type="checkbox"/>

Uses: Neutralizer Tank

Comments: Pre-1957 based on Reference 714, Equipment List for New Facility. Tank is listed as being 3' deep.

**Furthest Stage of Environmental Investigation**

RI

**COMMENTS**

Service pit below paint booth had a drain going directly to the storm drain. The site is being used beneficially. During a site visit by Brown and Caldwell in 2003, the area is being used for storage of heavy equipment. The concrete was heavily stained with oils, especially in the area of several catch basins. The service pit was partially filled with water. In June 2004, a tank fill pipe was located and waste oil found in the tank. The tank limits were not determined due to interference of a concrete surface during the geophysical survey. Downgradient groundwater samples reported fuels and lead below their respective BSLs and ESLs. TCE and its degradation products were detected in groundwater. In January 2006, a 3,400-gallon single-walled steel tank was uncovered. The UST appeared to be in good condition with a few minor holes. Rainwater and residual fuels/waste oil-like substance was removed from the tank. Soil was visibly impacted on the west side of the excavation. Four soil borings were advanced around the impacted soil and delineated the impact.

**RECOMMENDATIONS**

A risk evaluation is recommended for the non-petroleum related fuels in soil. The remedial alternative for the residual fuels in groundwater will be evaluated in the Feasibility Study.

## PA Summary

DoD Site #

CL2

Area: W

NDAI    FAR    IRR    Potential OE

### SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-090-300	DRESSER-RAND COMPANY	
Year Bldg. Built	1942	Year Bldg. Removed
		1962-1998
Current Land Use	Industrial-General	Site Area (SqFt)
		494

### OPERATIONAL HISTORY

#### DoD Use Type

NIKE Missile Repair and Support Facilities

#### DoD Uses

Boiler House

#### Secondary DoD Uses

None Listed

#### Post-Army Uses

None Identified

#### Flooring

Concrete Foundation

#### Disposal Information

None Identified

#### Activities (inside/outside)

Inside

#### Records Research Report Addenda Data

On 16 November 1955, a request for the demolition of the 3,180-gallon UST was approved by the installation Commander. The disposal was recommended due to the excessive maintenance cost of the UST (ref 74), which was later replaced with a 5,000-gallon capacity above-ground storage tank (AST) placed adjacent to Building CL2 (ref 605) and (ref 167). According to a 1962 Building Zone List, CL2 was scheduled with an approximate date to vacate of December 1962.

#### Records Research Report Comments

Constructed to provide heat to Building CL1. Located 100 feet west of the western corner of Building CL1, Building CL2 was constructed on a concrete foundation with 8-inch concrete walls and a concrete slab roof; the building covered an area of 494 ft<sup>2</sup> and contained one oil boiler (ref 196). To supply fuel oil to the boiler, a 3,180-gallon underground storage tank (UST) was installed near Building CL2 at the time of the building's construction (ref 74) in 1942. The records search indicates that the building is no longer present. The records did not indicate when the building was demolished.

### ENVIRONMENTAL SUMMARY

#### Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal)	Construction	Commodity Stored	Date	Date	Post-Army	Installed Post-Army
						Installed	Removed		
1	UST	US Army	3180	Unknown	Fuel Oil	1940s	1955	None	<input type="checkbox"/>
Uses: Fuel Storage									
Comments:									

## PA Summary

**DoD Site #**

CL2

**Area:** W

### Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
2	AST	US Army	5000	Unknown	Fuel Oil	1955	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments:

### Furthest Stage of Environmental Investigation

NONE

### COMMENTS

Status of the UST is unknown. Right-of-Entry was not granted to USACE to determine the status of the UST.

### RECOMMENDATIONS

A geophysical survey is recommended to determine the status of the UST. The property owner denied access. Until USACE is granted access to the property, no further USACE actions can be conducted at this site.

**APPENDIX B**

**March 17, 2005 and December 2, 2005  
NORCAL Geophysical Consultants  
Survey Reports**



March 17, 2005

Rachael Goldberg  
Brown & Caldwell  
201 North Civic Drive  
Walnut Creek, CA 94956

NORCAL Project No. 05-141.42

Subject : Geophysical Survey  
Former Buildings 50 and 111  
Former Benicia Arsenal

Dear Ms. Goldberg,

The purpose of this letter is to confirm that NORCAL Geophysical Consultants, Inc. has completed the geophysical investigation of the subject property. The investigation was conducted by NORCAL Geophysicist David Bissiri and Field Technician Travis Black on February 2, 2005. Field logistics and site information were provided by Ms. Rachael Goldberg of Brown & Caldwell.

### **I SITE DESCRIPTION**

The former Benicia Arsenal is a deactivated military facility located on the northern shore of Carquinez Straits in Benicia, California. Many of the original buildings are still standing but are either closed or converted to various civilian uses. The two buildings that are the subject of this investigation (Buildings 50 and 111), however, have been demolished and a newer structure currently stands in their place. The exact locations of the former buildings relative to the current structure are not known, but documents shown to NORCAL at the time of the investigation indicate that their approximate location would be under the floor of the current structure.

The current structure houses an automobile auction facility and is composed of a metal-sided, one story building with a large awning and concrete pad attached to its east side and a fenced-in area located on its south side (see Plate 1). An additional large concrete pad is located north of the building. Other than the concrete pads, the pavement surrounding the building is composed of asphalt. Notable above-ground features include chain-link fences located along the southern and northeastern boundaries, two railroad spurs that terminate east of the large awning, and several parked cars in the fenced-in area.

The investigation area, as delineated by Brown & Caldwell, consisted of an approximately 240- by 120-foot irregularly-shaped area located to the south, east and north of the current building. The approximate limits of the investigation area is depicted on Plate 1 by the dashed green and blue lines.



## **II PURPOSE**

It is known that many of the buildings at the Benicia Arsenal had small USTs that were used for storing heating and waste oils. In the case of former Buildings 55 and 111 it is not known if any such USTs are associated with them, or if any were removed. The purpose of the investigation, therefore, was to look for evidence of large buried ferrous objects that could be former USTs or their associated piping in the accessible portions of the investigation area.

## **III METHODOLOGY**

We conducted the investigation using a combination of vertical magnetic gradient (VMG), hand-held metal-detection (MD), and ground penetrating radar (GPR) methods. The VMG method is a geophysical technique that measures variations in the vertical gradient (the change of magnetic intensity with elevation) of the earth's magnetic field. Since ferrous objects locally distort this field, mapping the lateral variations of the gradient can assist in determining the general locations of buried metal objects. The MD method is a technique that uses radio-frequency induction to energize near-surface metal objects with a radio signal. By measuring lateral variations in the intensity of the re-radiated radio signal, the general locations and outlines of buried metal objects may be delineated. This method is often used to further refine the findings of the VMG method. The GPR method uses pulses of electromagnetic energy aimed into the ground to generate a radar image, or "profile", of the shallow sub-surface. The GPR profile is analyzed to determine the general size, shape and depth of buried objects. This method is typically used to further refine the findings of the VMG and MD methods.

A more detailed description of these geophysical methods and the specific equipment used is provided in Appendix A.

## **IV DATA COLLECTION and INTERPRETATION**

Prior to the collection of the VMG data we established a data collection grid in the accessible portions of the investigation area. The grid consisted of a series of parallel east-west lines spaced five feet apart with data stations placed at five-foot intervals along the lines. For logistics reasons, following the grid set-up we used the MD to conduct a reconnaissance of an approximately 70- by 35-foot area in the southwestern portion of the investigation area next to the fence. This was done because several cars needed to be moved to this portion of the investigation before VMG data could be collected elsewhere on the site. After the cars were parked in their final location we were able to collect VMG data.

Because of the expected magnetic interference from the building walls, awning supports, parked cars, and chain-link fences, the VMG survey was limited to the relatively open portions of the investigation area (as shown on Plate 1 by the dashed green lines). We then collected VMG data at the previously marked data stations of the data grid. Following the VMG data collection, the data



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were up-loaded to a field computer and processed on-site to produce a VMG contour map. The contour map was then evaluated for areas of strong magnetic variations. Strong magnetic variations are usually due to the presence of nearby ferrous objects. Variations that could not be attributed to the effects of obvious above-ground objects such as the building walls, awning supports, steel rails, reinforced concrete pads, etc. were considered anomalous and thus were further investigated with the MD in an attempt to determine their source(s). The MD was also used to conduct a reconnaissance of the accessible portions of the investigation area that could not be investigated with VMG, such as next to the building walls and under the edge of the awning. The MD reconnaissance consisted of a series of bidirectional traverses spaced 2-3 feet apart oriented both north-south and east-west. The outlines or alignments of detected sub-surface objects were painted on the ground with spray paint.

Finally, the GPR was used to both conduct a reconnaissance of the area under the awning and to investigate specific localized VMG / MD anomalies. The GPR reconnaissance under the awning consisted of four north-to-south traverses oriented parallel to the building wall and spaced approximately five feet apart as shown on Plate 1. The GPR investigation of localized VMG / MD anomalies consisted of four bidirectional traverses located in the southeast corner of the investigation area and two bidirectional traverses located in the south-central portion of the investigation area, north of the parked cars.

## VI RESULTS

The results of the VMG survey are presented on Plate 1. This plate depicts the VMG data contours, the VMG survey limits, the MD survey limits and the locations of pertinent above-ground and underground features. The criteria we use to distinguish contour distributions (anomalies) caused by buried metal are described in Appendix A. The VMG variations characteristic of significant amounts of sub-surface ferrous material at this site are evident primarily in two areas. The first area is defined by the assemblage of closely spaced and highly convoluted contours roughly coincident with the concrete pad north of the building. Based on the VMG values and the response of the MD instrument during the follow-up work, we believe that these VMG variations can be attributed to reinforcing bars embedded in the concrete. The second area of anomalous VMG variations is along the southern boundary of the survey area, south of the Grid North 40 line. Follow-up investigation of this area with the MD and GPR suggest that all of the VMG variations (beyond those attributable to the parked cars and chain-link fence) can be attributed to the effects of small amounts of localized buried metal debris or a suspected pair of petroleum transfer lines that already had their alignments marked on the ground in yellow paint by others prior to this investigation.

The GPR profiles of the investigation of the area underneath the awning did not display reflection patterns suggesting the presence of any USTs. The GPR profiles of the localized VMG / MD anomalies in the southern portion of the investigation area likewise did not indicate the presence of UST, but rather displayed the reflection patterns typically associated with disturbed soils and minor amounts of buried debris.

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## VII STANDARD CARE and WARRANTY

The scope of NORCAL's services for this project consisted of using geophysical methods to assess the area of investigation for buried metal objects. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. The services were performed in a manner consistent with the standard of care ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the services or products delivered under this agreement, expressed or implied, is made by NORCAL.

We appreciate having the opportunity to provide you with this information.

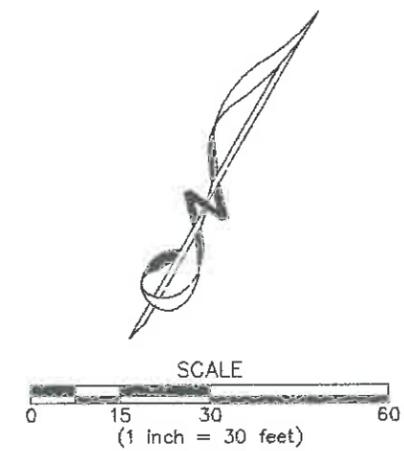
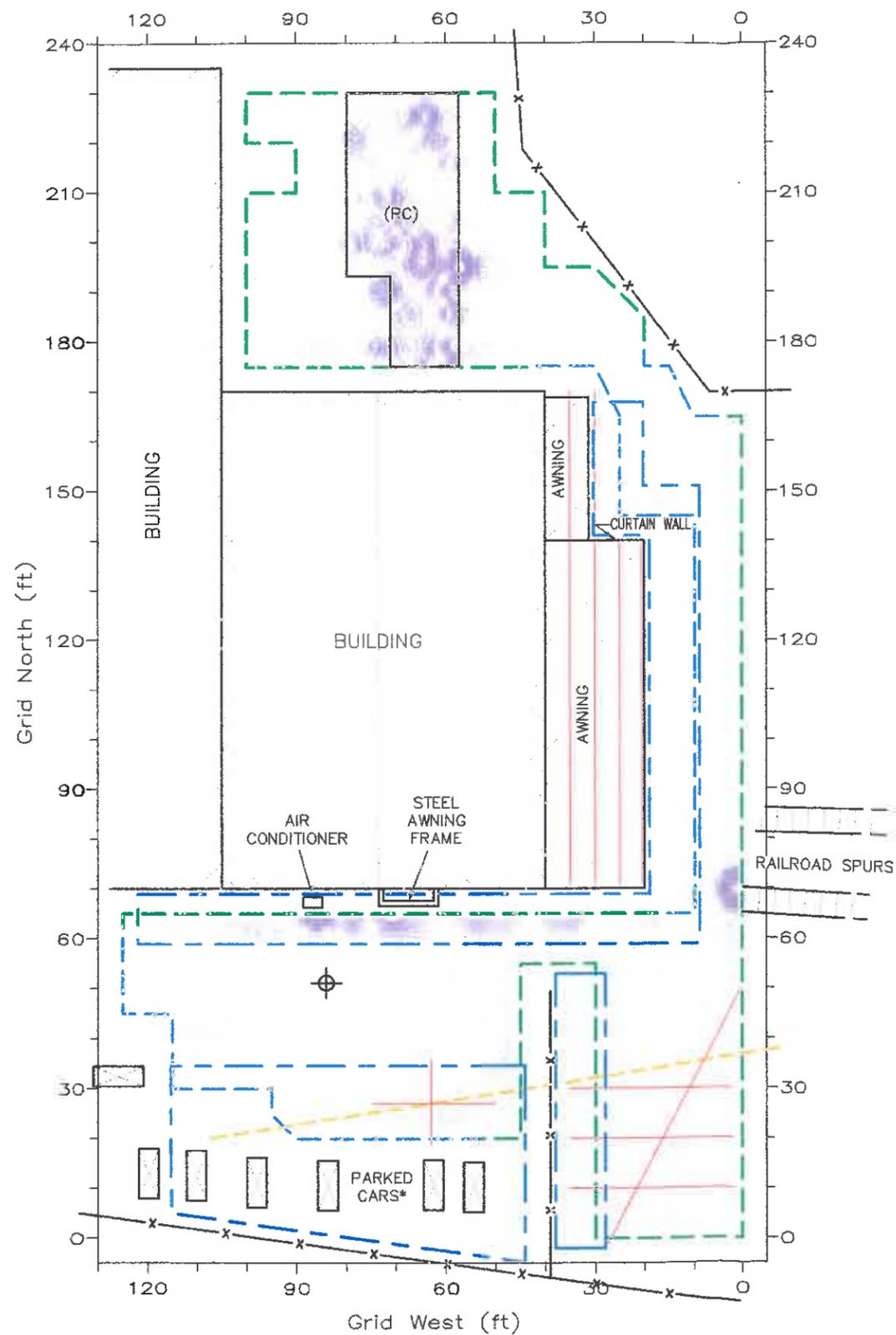
Respectfully,

NORCAL Geophysical Consultants, Inc.

David Bissiri  
Geophysicist GP - 1009

DJB/KGB/tt

Enclosure: Plate 1 - Geophysical Survey Map  
Appendix A - Geophysical Instrumentation, Methods, and Data Interpretation



LEGEND	
	LIMITS OF VERTICAL MAGNETIC GRADIENT SURVEY
	LIMITS OF METAL DETECTOR SURVEY AREAS
	VERTICAL MAGNETIC GRADIENT CONTOUR (CONTOUR INTERVAL = 200 nT/m)
	GPR TRAVERSE
	CENTERLINE OF SUSPECTED PAIR OF PETROLEUM TRANSFER PIPELINES
	CHAIN-LINK FENCE
	EXISTING PAIR OF SAMPLE POINTS
(RC)	REINFORCED CONCRETE

\*PARKED CARS ABSENT DURING METAL DETECTOR SURVEY

	<b>GEOPHYSICAL SURVEY MAP</b> <b>FORMER BUILDINGS 50 AND 111</b> <b>BENICIA ARSENAL</b>		PLATE <b>1</b>
	LOCATION: BENICIA, CALIFORNIA		
	CLIENT: BROWN & CALDWELL		
	NORCAL GEOPHYSICAL CONSULTANTS INC.		
JOB #: 05-141.42	DATE: FEB. 2005	DRAWN BY: G.RANDALL	APPROVED BY: DJB



**Appendix A**  
**Geophysical Methodology, Instrumentation,**  
**Data Analysis, and Limitations**



## Vertical Magnetic Gradient (VMG)

### VMG Methodology

VMG is a method commonly used to detect ferrous objects. This is accomplished by measuring the lateral variations of the earth's magnetic field. Since the magnetic field at any given point on the earth's surface is the vector sum of the earth's field combined with the magnetic fields of nearby metal objects, by removing or suppressing the earth's field the local magnetic variations due to ferrous objects may be detected. The basis for vertical magnetic gradient surveying starts with measuring the total intensity of the magnetic field. These are referred to as total field measurements (TF) and are recorded in units of nanoTesla (nT). In environmental and engineering investigations it is often more useful to measure the vertical rate of change of the total field magnetic intensity. This is referred to as the vertical magnetic gradient (VMG) measurements, and is measured in units of nanoTesla/meter (nT/m).

While both TF and VMG measurements are related to the same phenomena (i.e. the magnetic field), each has certain advantages over the other. However, the VMG method is often chosen for environmental/engineering investigations because of the following:

- 1) VMG measurements are generally less affected by nearby *above* ground objects, especially objects to the side of the instrument. This reduces magnetic interference caused by such objects.
- 2) VMG measurements are not affected by temporal (diurnal) variations in the earth's magnetic field, unlike TF measurements. This eliminates one more variable from the data.
- 3) VMG effects attenuate more rapidly with increasing distance from magnetic sources, thus allowing more precise determination of a buried object's location.

It should be noted, however, that because the VMG method is very sensitive, the effects of small near surface objects can be amplified and act as a source of noise in VMG data.

### Instrumentation

A vertical magnetic gradiometer is the device that is used to obtain the VMG data. The instrument typically used by NORCAL is a Geometrics 858 Cesium-vapor magnetometer. This instrument operates on the "optical pumping" principle and consists of a console and two total field magnetic sensors that are mounted on a vertical staff. One sensor is mounted at about shoulder-height and the other sensor is mounted at about knee-height. The magnetometer console features a built-in computer that stores the raw TF data, calculates the VMG values, and records survey grid



information. The instrument obtains the VMG values by simultaneously measuring the total magnetic field intensity at the two sensors, taking their difference in magnetic intensity, and then dividing by their separation distance. The survey information is recorded and later uploaded to a field computer for further processing.

### Computer Processing

VMG data are typically processed in the field on a portable computer. The uploaded data are converted into a format suitable for contouring using the program SURFER from Golden Software. This program calculates an evenly spaced array of values (data grid) based on the measured field data. These gridded values are then contoured to produce VMG contour maps for interpretation.

### Contour Map Interpretation

Generally speaking, in a region with fairly uniform magnetic conditions the VMG values will vary smoothly from one area to another. Under these conditions, contour lines are usually spaced far apart. In contrast, in those areas where VMG variations are stronger, the contours are closely spaced. In some cases the variations are so strong that the contours become highly contorted and convoluted. These contorted contours may form roughly concentric circles, tightly wound loops and whorls, or elongated parallel lines. Actual magnitude and shape of the contour lines is dependent on the relative position and size of the magnetic object with respect to the location of the magnetic sensors.

Roughly concentric circles that look like bull's-eyes are generally referred to as monopoles. Monopoles that are roughly limited in extent to the data point spacing of the sampling grid are often caused by relatively small, near surface objects with limited cross-section. These typically consist of well caps, pull boxes, balls of wire, etc. On the other hand, larger monopoles that extend across an area of several data points are typically associated with larger, deeper objects such as well casings, reinforced concrete footers, ends of pipelines, etc. In other cases, two monopoles, one positive and one negative, may be in close proximity and form a paired of high-low closures known as a dipole. Dipoles are often, but not always, attributed to larger objects such as USTs, vaults, buried ordnance, etc. that have a substantial diameter or width.

Irregular patterns of loops and whorls are often indicative of several magnetic objects being present with variable shape, mass, and distribution. These VMG patterns are the most difficult to interpret. Past experience has shown that such patterns are usually associated with debris fields, landfills, and demolition sites.

A series of parallel contours typically indicates that an elongate object such as a building wall, fence, or underground pipeline is the magnetic source.



Regardless of whether the contours form monopoles, dipoles, or irregular whorls, if there are no obvious nearby above ground sources that could cause such magnetic variations, then subsurface objects are suspected. Contours are typically considered anomalous when large differences in data readings (on the order of several hundred to several thousands of nT/m) from one data station to the next are displayed. The anomalous variations are called VMG anomalies.

### Limitations

Buried ferrous metal objects produce localized variations in the earth's magnetic field. The magnetic intensity associated with these objects depends on the mass of the metal and the distance the metal object is from the magnetometer sensor. As a general rule, anomaly magnitude typically decreases and anomaly width increases as distance (depth) to the source increases, thereby making detection more difficult. In addition, the ability to detect a buried metal object is based on the intensity of these variations in contrast to the intensity of background variations. The intensity of background variations is based on the amount of above and below ground metal that is present within the survey area. Cultural features such as chain-link fences, buildings, debris, railroad spurs, utilities, above ground electric lines, etc. typically produce magnetic variations with high intensities. These variations may mask the magnetic effects from buried metal objects and thus make it very difficult to determine whether the magnetic variations are associated with below ground metal or above/below ground cultural features.

## **Metal Detection (MD)**

### MD Methodology

This method uses the principle of electromagnetic induction to detect shallowly buried metal objects such as USTs, metal utility conduits, rebar in concrete, manhole covers, and various metallic debris. This is done by carrying a hand-held radio transmitter-receiver unit above the ground and continuously scanning the surface. A primary coil broadcasts a radio signal from a transmitter which induces secondary electrical currents in metal objects. These secondary currents in turn produce a magnetic field which is detected by the receiver.

### Instrumentation

The MD instrument that we typically use for shallow subsurface investigations is a Fisher TW-6 pipe and cable locator. This instrument is expressly designed to detect metallic pipes, cables, USTs, manhole covers, and other large, shallowly buried metallic objects. The instrument operates by generating both a meter reading (unitless) and an audible response when near a metal object. The peak instrument response usually occurs when the unit is directly over the object. The TW-6 does not provide a recordable data output that can be used for later computer processing. Results are generally limited to marking the interpreted outlines of detected objects in the field and mapping their locations.



### Limitations

In general, the response of the MD instrument is roughly proportional to the horizontal surface area of near surface buried objects (typically in the upper three or four feet). This relationship can be used to advantage in discriminating between metal debris, reinforced concrete pads, and pipelines. However, in the presence of above ground metal objects such as fences, walls, parked cars, and metal debris, this is no longer valid. In some instances, the presence of such objects can make it very difficult to determine whether the instrument responses are associated with below ground targets or above ground cultural features. When multiple sources are present it may not be possible to identify individual targets. Also, relatively large objects that have a limited horizontal cross-section such as well casing and fence posts are sometimes difficult to detect.

## **Ground Penetrating Radar (GPR)**

### GPR Methodology

Ground penetrating radar is a method that provides a continuous, high resolution graphical cross-section of the shallow subsurface. The method entails repeatedly radiating an electromagnetic pulse into the ground from an antenna as it is moved along a traverse. Reflected signals are received by an antenna (often the same one used to generate the signal) and sent to a control unit for processing. The control unit then converts the varying amplitude of reflected radar signals as a function of time into a cross-sectional image showing signal amplitude as a function of depth.

GPR is particularly sensitive to variations of two electrical properties. One property is conductivity (the ability of a material to conduct a charge when a field is applied) and the other is permittivity (the ability of a material to hold a charge when a field is applied). These two properties determine how far a signal can propagate. They also determine the strength of reflected signals that can be generated at material boundaries. Most soil and earthen-like materials such as concrete are electrically resistive and have a relatively low permittivity. As a result, they are relatively transparent to electromagnetic energy. This means that only a portion of the radar signal incident upon them is reflected back to the surface. On the other hand, when the signal encounters an object composed of a material that has the opposite electrical properties, especially one with a high permittivity (such as metal) much of the incident energy is reflected.

### Instrumentation

We typically perform GPR surveys using a Geophysical Survey Systems, Inc. SIR-2000 Subsurface Interface Radar System equipped with a 500 megahertz (MHz) transducer. This unit is comprised of a combined control/data recording console that is connected by a telemetry cable to the antenna. This system is often chosen for investigating environmental sites since it usually provides both the resolution and depth penetration needed for characterizing the upper three to four feet of the subsurface.

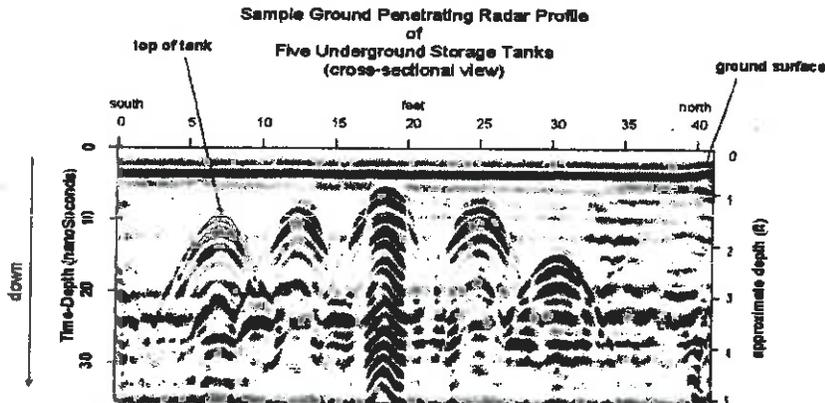


## Data Interpretation

The interpretation of GPR data involves examining the graphical records for reflections from buried objects. GPR records display changes in reflected signal strength and arrival time with changes in horizontal position. Strong signals appear dark and weak reflections appear light. Reflections that arrive earlier in time are placed in the upper portions of the record and reflections that arrive later are placed lower, towards the bottom of the records. Horizontal position is across the top of the record.

In areas with relatively uniform conditions, with no buried objects producing reflections, the records typically appear as a series of alternating dark and light horizontal bands. In areas where there are subsurface objects producing reflections, the horizontal banding is disrupted. Discrete objects typically produce reflections having the appearance of inverted “U”s, forming what are known as “hyperbolic reflections”. Metallic objects often produce markedly strong reflections, in many cases forming multiple reflections appearing as a series of inverted U’s cascading down the record. Non-metallic objects can produce similar reflections, but the multiples are typically much weaker.

A sample profile from a different site with five adjacent steel USTs is presented below:



An object's burial depth may also be estimated from GPR profiles. As mentioned above, GPR measures signal amplitude as a function of time. However, the translation of the radar signal's travel time (technically known as time-depth) to an actual distance (true depth) is not always a simple one. Strictly speaking, in order to translate from time-depth to true depth the signal velocity within each time interval must be known. Since this is not routinely determined in the field, estimated velocities are often used for determining the approximate depth to a reflector. The empirical values for GPR signal propagation velocities within commonly encountered soils are obtained from published tables.



### Limitations

The ability to detect subsurface targets is dependent on specific site conditions. These conditions include depth of burial, the size or diameter of the target, the condition of the specific target in question, the type of backfill material associated with the target, and the surface conditions over the target. Typically, the depth of detection will be reduced as the clay and/or moisture content in the subsurface increases. As a result, depths of detection (using a 500 Mhz antenna) typically range from as deep as six feet to as little as a few inches.



December 2, 2005

Ms. Wendy Linck  
Brown and Caldwell  
10540 White Rock Road, Ste 180  
Rancho Cordova, CA 96570

Subject: Geophysical Surveys  
Benicia Arsenal Environmental Restoration Project  
Benicia, California  
NORCAL Job # 05-141.47

Dear Ms. Linck:

This report presents the findings of geophysical surveys performed by NORCAL Geophysical Consultants, Inc. at the former Benicia Arsenal. The field investigations were performed on October 25, 2005 by NORCAL Geophysicists Donald J. Kirker and Sierra Boyd. Site information and logistical support was provided by Brown and Caldwell personnel Wendy Linck.

These investigations were conducted under the guidelines presented in Brown and Caldwell's Task Order Authorization, Prism Project Number 128336, dated March 18, 2005. All geophysical work performed at the Benicia Arsenal was governed by the Brown and Caldwell Master Subcontract dated March 29, 2004.

### **SCOPE OF WORK**

The scope of work, as outlined in the Task Order Authorization, includes conducting geophysical investigations within Brown & Caldwell designated survey areas at Buildings 27 and 45. These sites are located within the central portion of the former arsenal, as shown on Plate 1.

### **PURPOSE**

Information, provided by Brown and Caldwell, indicates that underground storage tanks (USTs) may be located at Buildings 27 and 45. However, records are incomplete regarding their exact locations or whether they have been removed. Therefore, the purpose of the geophysical investigations is to obtain subsurface information to aid in determining the location of the possible USTs within the designated survey areas.

### **FIELD INVESTIGATION**

We used three methods, referred to as the metal detection (MD), ground penetrating radar (GPR), and electromagnetic line locating (EMLL) methods, to survey for possible USTs. Descriptions of the MD, EMLL, and GPR methods are provided in Appendix A.

Prior to proceeding with the geophysical data acquisition at Buildings 27 and 45, we established a horizontal control grid using a fiberglass measuring tape at each site. The survey grids were based on a rectangular coordinate system. The limits of each grid (survey area) are shown on Plates 2 and 3.



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At Building 27, we used the EMLL technique to trace former fuel oil lines that were exposed inside the basement of the building. MD and GPR techniques were then used to survey for USTs where the former fuel lines terminated. At Building 45, we scanned the survey area with the MD and EMLL equipment along east-west and/or south-north trending traverses spaced five feet apart. All detected features were marked on the ground surface with pink spray paint. We then obtained GPR data over the same traverses. The GPR records were examined for reflection patterns characteristic of USTs, utilities, and other buried objects.

## **SITE DESCRIPTIONS AND RESULTS**

The results of the geophysical investigations at Buildings 27 and 45 are presented on the Geophysical Survey Maps, Plates 2 and 3, respectively. These plates show pertinent site features as well as our findings for each site. Although the plates show detected utility alignments, it should be noted that since a utility search was not the primary objective of the UST surveys, there may be additional utilities at each site that are not shown. A description of the site features and geophysical survey results for each site is presented below.

### **Building 27**

#### Site Description

The survey area at Building 27, as shown on Plate 2, is located south of the building. Ground cover consists primarily of grass. The survey area is bound by a sidewalk to the north and Jefferson Street to the south, and is free of above ground cultural objects. Two pipe stubs, associated with a boiler that has been removed, exit the basement at the southwest corner of the building. It is suspected that these pipes are former fuel oil lines associated with an UST.

#### Results

The results of the geophysical survey at Building 27 is shown on Plate 2. The suspected fuel lines and a possible UST were detected. The fuel lines trend south approximately 39 feet from the basement of the building and terminate between the sidewalk and curb near Jefferson Street. Beneath this area, we detected a shallow metal object, measuring approximately 3 by 3 feet, that we believe may represent a possible UST. While these dimensions are not typical of a standard UST, they may represent an atypical UST with a volume of approximately 200 gallons. The GPR data obtained in this area defined flat, truncated reflection patterns over the possible UST instead of typical broad hyperbolic patterns, indicating that it may be oriented vertically.

### **Building 45**

#### Site Description

The survey area at Building 45, as shown on Plate 3, comprises approximately 1,400 square feet and covers portions of the asphalt lot on the west side of the building, as shown on Plate 3. The only



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above ground features in the survey area is a pallet of stacked rock slabs, a table, and some stored household goods. They are all located along the wall of the building.

### Results

An undifferentiated utility and a sanitary sewer line were detected within the limits of the survey at building 45 (Plate 3). The undifferentiated utility trends south to north and parallels the building. The sanitary sewer line crosses the site diagonally from southwest to northeast. No other subsurface utilities or buried metal objects that could represent a UST were detected within the limits of the survey by the MD technique.

The GPR data displayed reflection patterns related to the utilities and shallow fill horizons associated with the pavement. However, the data did not display hyperbolic reflection patterns within the upper 2 to 4 feet of the subsurface large enough to represent a UST.

### **STANDARD CARE AND WARRANTY**

The scope of NORCAL's services for this project consisted of using geophysical methods to characterize the shallow subsurface. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. We performed our services in a manner consistent with the level of skill ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the performance of services or products delivered under this agreement, expressed or implied, is made by NORCAL.

We appreciate having the opportunity to provide you with this information.

Respectfully,

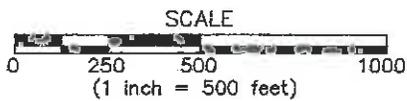
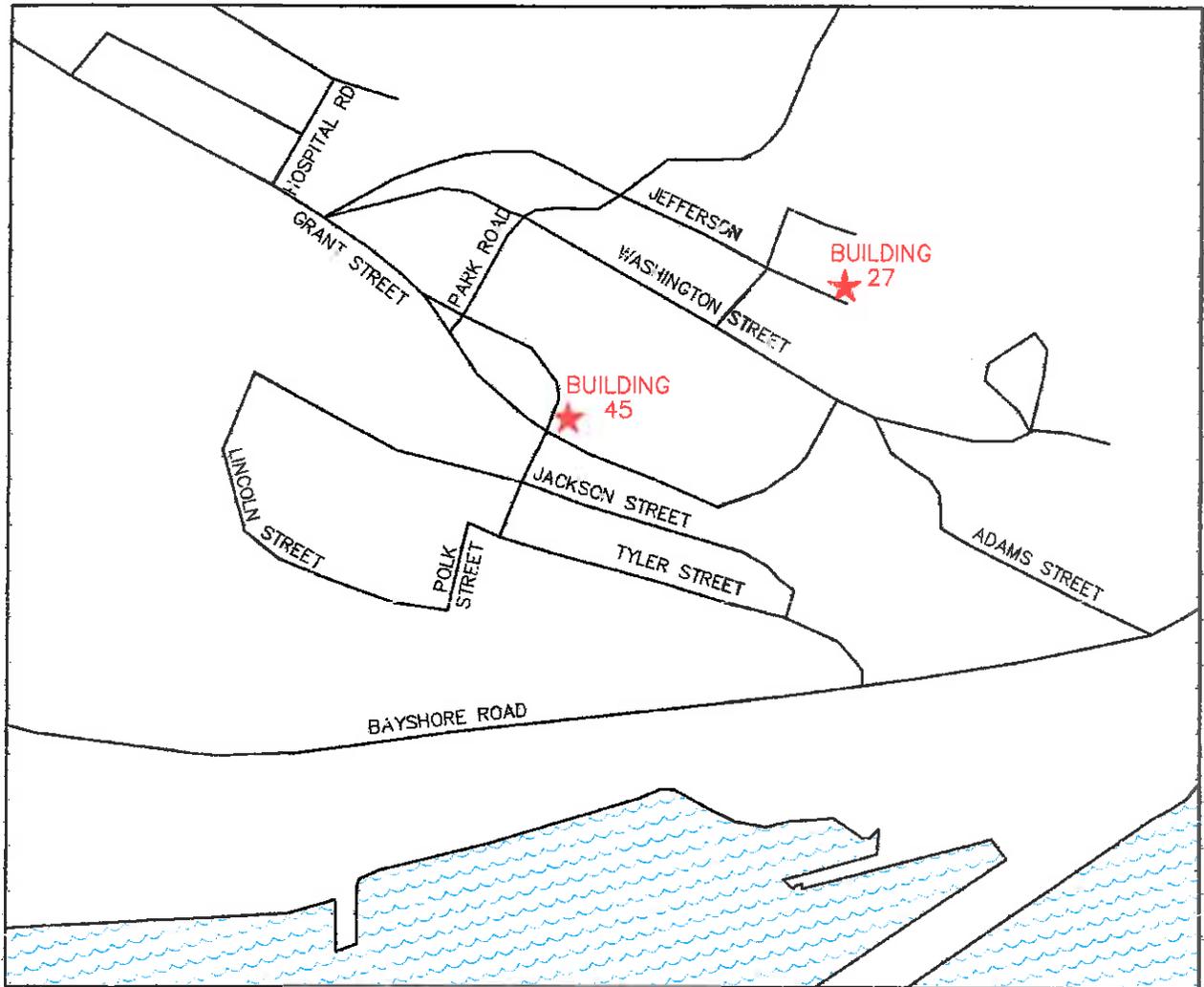
NORCAL Geophysical Consultants, Inc.

A handwritten signature in black ink that reads "Donald J. Kirker".

Donald J. Kirker  
Geophysicist, GP-997

DJK/tt

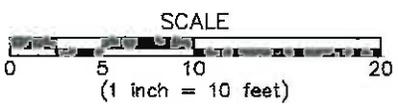
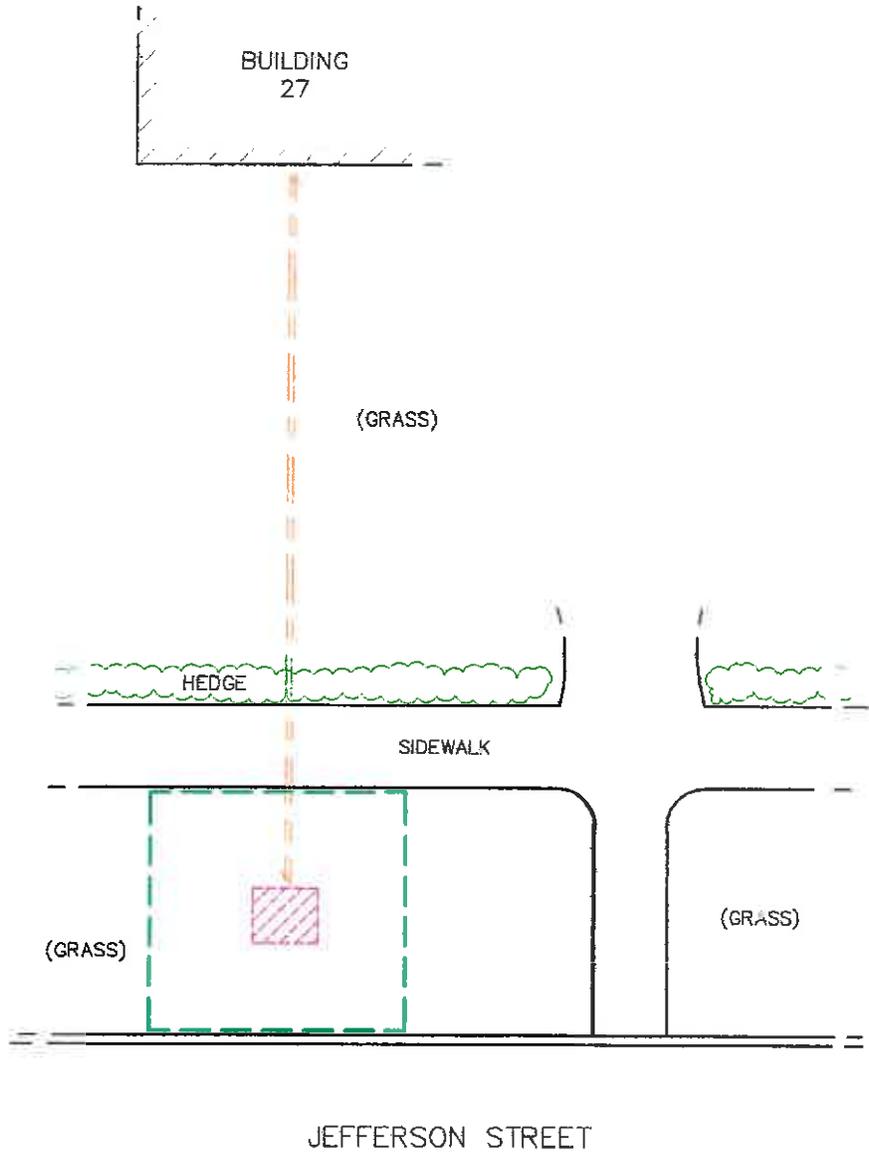
Enclosure:   Plates 1 through 3  
                  Appendix A   GEOPHYSICAL METHODOLOGY



### LEGEND

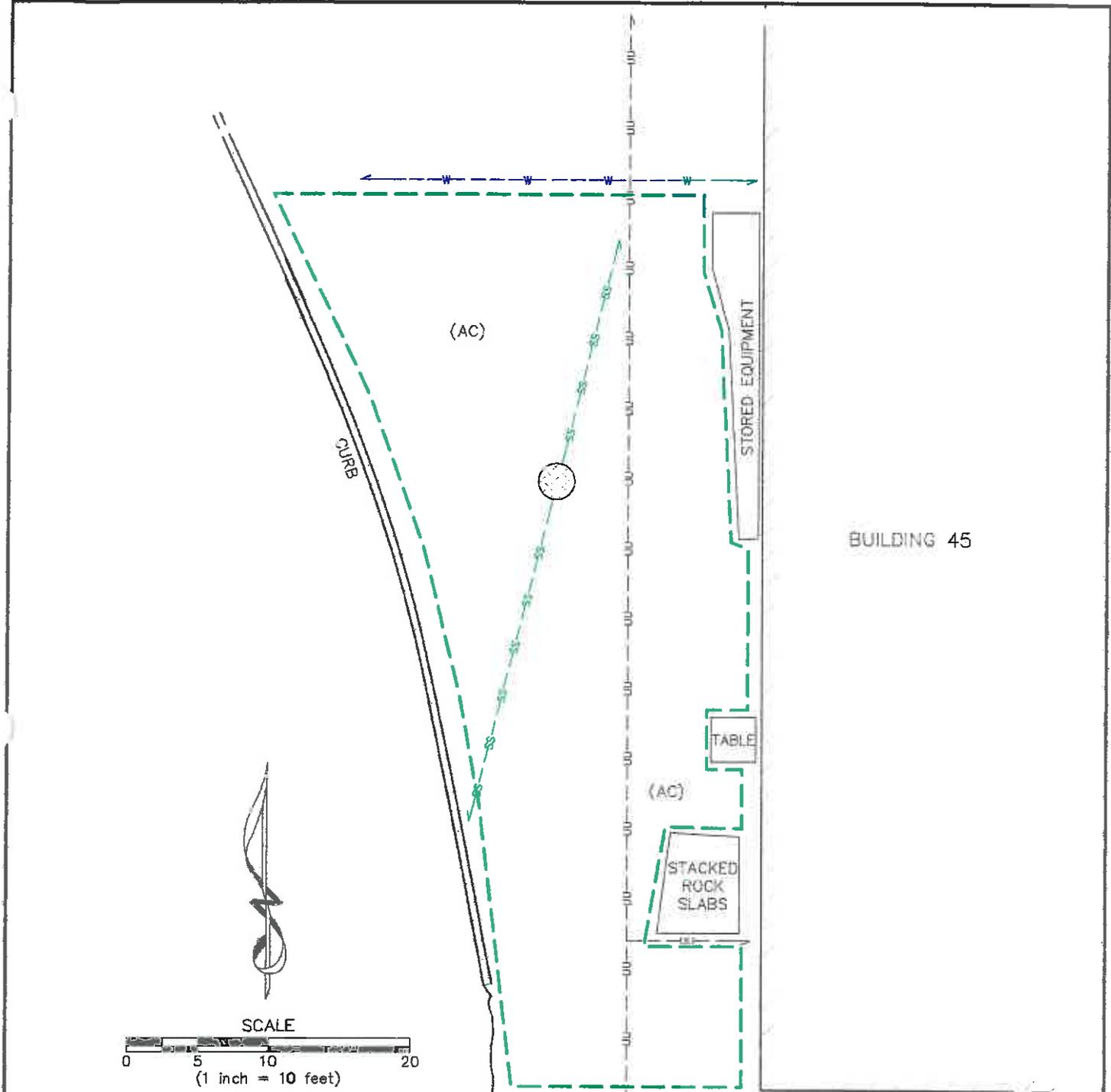
	SITE LOCATION
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 <b>NORCAL</b>	<b>SITE LOCATION MAP          GEOPHYSICAL SURVEY          BENICIA ARSENAL</b>	
	LOCATION: BENICIA, CALIFORNIA	
JOB #: 05-141.47	CLIENT: BROWN & CALDWELL	PLATE <b>1</b>
DATE: NOV. 2005	NORCAL GEOPHYSICAL CONSULTANTS, INC. DRAWN BY: G.RANDALL    APPROVED BY: DJK	



LEGEND	
	LIMITS OF GEOPHYSICAL SURVEY
	FUEL LINE
	SUSPECTED UST

 <b>NORCAL</b>	<b>GEOPHYSICAL SURVEY MAP</b> <b>BUILDING 27</b> <b>BENICIA ARSENAL</b>	
	LOCATION: BENICIA, CALIFORNIA	
	CLIENT: BROWN & CALDWELL	
	JOB #: C5-141.47	NORCAL GEOPHYSICAL CONSULTANTS INC.
DATE: NOV. 2005	DRAWN BY: G.RANDALL	APPROVED BY: DJK
		<b>PLATE</b> <b>2</b>



LEGEND	
	LIMITS OF GEOPHYSICAL SURVEY
	SANITARY SEWER LINE
	UNDIFFERENTIATED UTILITY LINE
	WATER LINE
	SEWER MANWAY
(AC)	ASPHALT

	<b>GEOPHYSICAL SURVEY MAP</b> <b>BUILDING 45</b> <b>BENICIA ARSENAL</b>	
	LOCATION: BENICIA, CALIFORNIA	
	CLIENT: BROWN & CALDWELL	
	JOB #: 05-141.47 DATE: NOV. 2005	NORCAL GEOPHYSICAL CONSULTANTS INC. DRAWN BY: G.RANDALL APPROVED BY: DJK



**Appendix A**  
**GEOPHYSICAL METHODOLOGY**



## Appendix A

### ELECTROMAGNETIC LINE LOCATION/METAL DETECTION (EMLL/MD)

#### Methodology

Electromagnetic line location techniques (EMLL) are used to locate the magnetic field resulting from an electric current flowing on a line. These magnetic fields can arise from currents already on the line (passive) or currents applied to a line with a transmitter (active). The most common passive signals are generated by live electric lines and re-radiated radio signals. Active signals can be introduced by connecting the transmitter to the line at accessible locations or by induction.

The detection of underground utilities is affected by the composition and construction of the line in question. Utilities detectable with standard line location techniques include any continuously connected metal pipes, cables/wires or utilities with tracer wires. Unless the utilities carry a passive current, they must be exposed at the surface or in accessible utility vaults. These generally include water, electric, natural gas, telephone, and other conduits related to facility operations. Utilities that are not detectable using standard electromagnetic line location techniques include those made of non-electrically conductive materials such as PVC, fiberglass, vitrified clay, and pipes with insulated connections.

Buried objects can also be detected, without direct contact, by using the metal detection technique (MD). This is used to detect buried near surface metal objects such as rebar, manhole covers, USTs, and various metallic debris. The MD transmitter-receiver unit is held above the ground and continuously scanned over the surface. The unit utilizes two orthogonal coils that are separated by a specified distance. One of the coils transmits an electromagnetic signal (primary magnetic field) which in turn produces a secondary magnetic field about the subsurface metal object. Since the receiver coil is orthogonal to the transmitter coil, it is unaffected by the primary field. Therefore, the secondary magnetic fields produced by buried metal object will generate an audible response from the unit. The peak of this response indicates when the unit is directly over the metal object.

The instrumentation we used for the EMLL and MD survey consists of a Radio Detection RD-400 and a Fisher TW-6 inductive pipe and cable locator.

#### Data Analysis

The EMLL/MD instrumentation indicates the presence of buried metal by emitting an audible tone; there are no recorded data to analyze. Therefore, the locations of buried objects detected with these methods are marked on the ground surface during the survey.



## **Limitations**

The detection of underground utilities is dependent upon the composition and construction of the line of interest, as well as depth. Utilities detectable with standard line location techniques include any continuously connected metal pipes, cables/wires or utilities with tracer wires. Unless carrying a passive current these utilities must be exposed at the surface or accessible in an utility vaults. These generally include water, electric, natural gas, telephone, and other conduits related to facility operations. Utilities that may not be detectable using standard electromagnetic line location techniques include certain abandoned utilities, utilities not exposed at the ground surface, or those made of non-electrically conductive materials such as PVC, fiberglass, vitrified clay, and metal pipes with insulating joints. Pipes generally deeper than about five to seven feet may not be detected.



## **GROUND PENETRATING RADAR (GPR)**

### **Methodology**

Ground penetrating radar is a method that provides a continuous, high resolution cross-section depicting variations in the electrical properties of the shallow subsurface. The method is particularly sensitive to variations in electrical conductivity and electrical permittivity (the ability of a material to hold a charge when an electrical field is applied).

The GPR system operates by radiating electromagnetic pulses into the ground from a transducer (antenna) as it is moved along a traverse. Since most earth materials are transparent to electromagnetic energy, the signal spreads downward into the subsurface. However, when the signal encounters a variation in electrical permittivity, a portion of the electromagnetic energy is reflected back to the surface. When the signal encounters a metal object, all of the incident energy is reflected. The reflected signals are received by the same transducer and are printed in cross-section form on a graphical recorder. Changes in subsurface reflection character on the GPR records can provide information regarding the location of USTs, sumps, buried debris, underground utilities, and variations in the shallow stratigraphy.

The GPR system used was a Geophysical Survey Systems, Inc. SIR-2 Subsurface Interface Radar Systems equipped with a 500 megahertz (MHz) transducer. This transducer is near the center of the available frequency range and is used to provide high resolution at shallow depths.

### **Data Analysis**

GPR records are examined to identify reflection patterns characteristic of USTs, utilities, and other buried debris. Typically, USTs are manifested by broad localized hyperbolic (upside-down "U" shape) reflection patterns that vary in intensity. The intensity of a reflection pattern is usually dependent upon the condition of the respective UST, its burial depth, and the type of fill over the UST. Utilities and other buried debris are typically manifested by narrow localized hyperbolic reflections that also vary in intensity.

### **Limitations**

The ability to detect subsurface targets is dependent on site specific conditions. These conditions include depth of burial, the size or diameter of the target, the condition of the specific target in question, the type of backfill material associated with the target, and the surface conditions over the target. Under ideal conditions, the GPR can generally detect objects buried to approximately six feet. However, as the clay content in the subsurface increases, the GPR depth of detection decreases. Therefore, it is possible that on-site soil conditions and target features may limit the depth of detection to the upper one to two feet below ground surface.

## **APPENDIX C**

### **Legend for Analytical Result Tables**

Appendix C.  
Legend for Analytical Results

Sample Types	
SampleTypeID	Description
N	Normal Environmental Sample

Laboratories	
Lab ID	Description
EMXT	EMAX Labs., Inc., Torrance, CA

Analytes	
AnalyteID	Analyte Name
1560-96-9	2-METHYLTRIDECANE
1618-22-0	Naphthalene, Decahydro-2,6-dimethyl-
17301-23-4	Undecane, 2,6-Dimethyl-
1921-70-6	2,6,10,14-TETRAMETHYLPENTADECANE
26730-14-3	7-METHYLTRIDECANE
2958-75-0	1-METHYL-DECAHYDRONAPHTHALENE
2958-76-1	DECAHYDRO-2-METHYL-NAPHTHALENE
2MTD	2-METHYL-TRANS-DECALIN
41446-68-8	(E)-3-TETRADECENE
493-02-7	TRANS-DECAHYDRONAPHTHALENE
544-76-3	N-HEXADECANE (C16)
54676-39-0	2-BUTYL-1,1,3-TRIMETHYL-CYCLOHEXANE
5617-41-4	HEPTYLCYCLOHEXANE
71186-27-1	1-ETHYL-2,2,6-TRIMETHYLCYCLOHEXANE
74645-98-0	2,7,10-TRIMETHYLDODECANE
ACE	ACETONE
ACNP	ACENAPHTHENE
ACNPY	ACENAPHTHYLENE
ANILINE	ANILINE (PHENYLAMINE, AMINO BENZENE)
ANTH	ANTHRACENE
BBP	BENZYL BUTYL PHTHALATE
BDCME	BROMODICHLOROMETHANE
BECEM	bis(2-CHLOROETHOXY) METHANE
BIS2CEE	bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)
BIS2CIE	bis(2-CHLOROISOPROPYL) ETHER
BIS2EHP	bis(2-ETHYLHEXYL) PHTHALATE
BPPE4	4-BROMOPHENYL PHENYL ETHER
BRBZ	BROMOBENZENE
BRCLME	BROMOCHLOROMETHANE
BRME	BROMOMETHANE
BTBZN	n-BUTYLBENZENE
BTBZS	SEC-BUTYLBENZENE
BTBZT	t-BUTYLBENZENE
BZ	BENZENE
BZAA	BENZO(a)ANTHRACENE

Appendix C.  
Legend for Analytical Results

Analytes	
AnalyteID	Analyte Name
BZACID	BENZOIC ACID
BZAP	BENZO(a)PYRENE
BZBF	BENZO(b)FLUORANTHENE
BZGHIP	BENZO(g,h,i)PERYLENE
BZKF	BENZO(k)FLUORANTHENE
BZLAL	BENZYL ALCOHOL
BZME	TOLUENE
C4M3PH	4-CHLORO-3-METHYLPHENOL
CD	CADMIUM
CDS	CARBON DISULFIDE
CHRYSENE	CHRYSENE
CLANIL4	4-CHLOROANILINE
CLBZ	CHLOROBENZENE
CLBZME2	2-CHLOROTOLUENE
CLBZME4	4-CHLOROTOLUENE
CLEA	CHLOROETHANE
CLME	CHLOROMETHANE
CLPH2	2-CHLOROPHENOL
CNPH2	2-CHLORONAPHTHALENE
CPPE4	4-CHLOROPHENYL PHENYL ETHER
CR	CHROMIUM, TOTAL
CTCL	CARBON TETRACHLORIDE
CYMP	P-CYMENE (p-ISOPROPYLTOLUENE)
DBAHA	DIBENZ(a,h)ANTHRACENE
DBCME	DIBROMOCHLOROMETHANE
DBCP	1,2-DIBROMO-3-CHLOROPROPANE
DBF	DIBENZOFURAN
DBMA	DIBROMOMETHANE
DBZD33	3,3'-DICHLOROBENZIDINE
DCA11	1,1-DICHLOROETHANE
DCA12	1,2-DICHLOROETHANE
DCBZ12	1,2-DICHLOROBENZENE
DCBZ13	1,3-DICHLOROBENZENE
DCBZ14	1,4-DICHLOROBENZENE
DCE11	1,1-DICHLOROETHENE
DCE12C	cis-1,2-DICHLOROETHYLENE
DCE12T	trans-1,2-DICHLOROETHENE
DCP11	1,1-DICHLOROPROPENE
DCP13C	cis-1,3-DICHLOROPROPENE
DCP13T	trans-1,3-DICHLOROPROPENE
DCP24	2,4-DICHLOROPHENOL
D CPA12	1,2-DICHLOROPROPANE
D CPA13	1,3-DICHLOROPROPANE
D CPA22	2,2-DICHLOROPROPANE
DEPH	DIETHYL PHTHALATE

Appendix C.  
Legend for Analytical Results

Analytes	
AnalyteID	Analyte Name
DMP24	2,4-DIMETHYLPHENOL
DMPH	DIMETHYL PHTHALATE
DN46M	4,6-DINITRO-2-METHYLPHENOL
DNBP	DI-n-BUTYL PHTHALATE
DNOP	DI-n-OCTYLPHTHALATE
DNP24	2,4-DINITROPHENOL
DNT24	2,4-DINITROTOLUENE
DNT26	2,6-DINITROTOLUENE
DRO	DIESEL RANGE ORGANICS
EBZ	ETHYLBENZENE
EDB	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)
ETBE	TERT-BUTYL ETHYL ETHER
ETHANOL	ETHANOL
FC11	TRICHLOROFLUOROMETHANE
FC113	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
FC12	DICHLORODIFLUOROMETHANE
FL	FLUORENE
FLA	FLUORANTHENE
GRO	GASOLINE RANGE ORGANICS (C
HCBU	HEXACHLOROBUTADIENE
HCCP	HEXACHLOROCYCLOPENTADIENE
HCLBZ	HEXACHLOROBENZENE
HCLEA	HEXACHLOROETHANE
HXO2	2-HEXANONE
IME	IODOMETHANE (METHYL IODIDE)
INP123	INDENO(1,2,3-c,d)PYRENE
IPBZ	ISOPROPYLBENZENE (CUMENE)
ISOP	ISOPHORONE
ISOPRE	ISOPROPYL ETHER
MEK	METHYL ETHYL KETONE (2-BUTANONE)
MEOH	METHANOL
MEPH2	2-METHYLPHENOL (o-CRESOL)
MEPH4	4-METHYLPHENOL (p-CRESOL)
MIBK	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)
MTLNCL	METHYLENE CHLORIDE
MTNPH2	2-METHYLNAPHTHALENE
NAPH	NAPHTHALENE
NI	NICKEL
NNSM	N-NITROSODIMETHYLAMINE
NNSPH	N-NITROSODIPHENYLAMINE
NNSPR	N-NITROSODI-n-PROPYLAMINE
NO2ANIL2	2-NITROANILINE
NO2ANIL3	3-NITROANILINE
NO2ANIL4	4-NITROANILINE
NO2BZ	NITROBENZENE

Appendix C.  
Legend for Analytical Results

Analytes	
AnalyteID	Analyte Name
NTPH2	2-NITROPHENOL
NTPH4	4-NITROPHENOL
OILGREASE	OIL & GREASE, TOTAL REC
PB	LEAD
PBZN	n-PROPYLBENZENE
PCA	1,1,2,2-TETRACHLOROETHANE
PCB1016	PCB-1016 (AROCHLOR 1016)
PCB1221	PCB-1221 (AROCHLOR 1221)
PCB1232	PCB-1232 (AROCHLOR 1232)
PCB1242	PCB-1242 (AROCHLOR 1242)
PCB1248	PCB-1248 (AROCHLOR 1248)
PCB1254	PCB-1254 (AROCHLOR 1254)
PCB1260	PCB-1260 (AROCHLOR 1260)
PCE	TETRACHLOROETHYLENE(PCE)
PCP	PENTACHLOROPHENOL
PHAN	PHENANTHRENE
PHENOL	PHENOL
PYR	PYRENE
RRO	RESIDUAL RANGE ORGANICS
STY	STYRENE
TAME	TERT-AMYL METHYL ETHER
TBME	BROMOFORM
TBUTMEE	tert-BUTYL METHYL ETHER
TC1112	1,1,1,2-TETRACHLOROETHANE
TCA111	1,1,1-TRICHLOROETHANE
TCA112	1,1,2-TRICHLOROETHANE
TCB123	1,2,3-TRICHLOROBENZENE
TCB124	1,2,4-TRICHLOROBENZENE
TCE	TRICHLOROETHYLENE (TCE)
TCLME	CHLOROFORM
TCP245	2,4,5-TRICHLOROPHENOL
TCP246	2,4,6-TRICHLOROPHENOL
TCPR123	1,2,3-TRICHLOROPROPANE
TMB124	1,2,4-TRIMETHYLBENZENE
TMB135	1,3,5-TRIMETHYLBENZENE (MESITYLENE)
VA	VINYL ACETATE
VC	VINYL CHLORIDE
XYLMP	M,P-XYLENE (SUM OF ISOMERS)
XYLO	O-XYLENE (1,2-DIMETHYLBENZENE)
ZN	ZINC

Appendix C.  
Legend for Analytical Results

Parvq	
ParvqID	Description
=	Detected Above Reporting Limit
ND	Not Detected Above Detection Limit
TI	Tentatively Identified Compound
TR	Trace Detection; Below RL, Above DL

QC Flags	
QCFlag	Description
NJ	The analyte identification is presumptive. Reported value is an estimated concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UR	The material was analyzed for and was reported as not detected by the laboratory. The data are unusable. The analyte may or may not be present.

Reason Codes	
ReasonCode	Description
2	Method blank contamination
3L	Low surrogate recovery
4L	Low MS/MSD recovery
4H	High MS/MSD recovery
5	MS/MSD precision outside limits
A	Absence of supporting QC
T	Trace level compound, poor quantitation

Units	
UnitsID	Description
MG/KG	Milligrams per Kilogram
MG/L	Milligrams per Liter
UG/L	Micrograms/Liter

**APPENDIX D**

**Analytical Results for All Constituents in Soil**

**Appendix D**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,1,1-TRICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/05/06	11 - 11.5	SW8260B	1,1,1-TRICHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,1-TRICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,1,1-TRICHLOROETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,1-TRICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,1-TRICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,1-TRICHLOROETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,1-TRICHLOROETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,1-TRICHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,1,2-TRICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,1,2-TRICHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2-TRICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,1,2-TRICHLOROETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2-TRICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2-TRICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1,2-TRICHLOROETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,2-TRICHLOROETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1,2-TRICHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,1-DICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,1-DICHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,1-DICHLOROETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1-DICHLOROETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1-DICHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Defect Limit	Parvq	QC Flag	Reason Code
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,1-DICHLOROETHENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,1-DICHLOROETHENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROETHENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,1-DICHLOROETHENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROETHENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROETHENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROETHENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1-DICHLOROETHENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1-DICHLOROETHENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,1-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,1-DICHLOROPROPENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,1-DICHLOROPROPENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,1-DICHLOROPROPENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1-DICHLOROPROPENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,1-DICHLOROPROPENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,2,3-TRICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,2,3-TRICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,3-TRICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,2,3-TRICHLOROBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,3-TRICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,3-TRICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,3-TRICHLOROBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2,3-TRICHLOROBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2,3-TRICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,2,3-TRICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,2,3-TRICHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,3-TRICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,2,3-TRICHLOROPROPANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,3-TRICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,3-TRICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,3-TRICHLOROPROPANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2,3-TRICHLOROPROPANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2,3-TRICHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,2,4-TRICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,2,4-TRICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,4-TRICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,2,4-TRICHLOROBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,4-TRICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	1,2,4-TRICHLOROBENZENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,4-TRICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,4-TRICHLOROBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	1,2,4-TRICHLOROBENZENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2,4-TRICHLOROBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	1,2,4-TRICHLOROBENZENE	< 0.2	MG/KG	0.2	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2,4-TRICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,2,4-TRIMETHYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,2,4-TRIMETHYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,4-TRIMETHYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,2,4-TRIMETHYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,4-TRIMETHYLBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,4-TRIMETHYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2,4-TRIMETHYLBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2,4-TRIMETHYLBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2,4-TRIMETHYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,2-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,2-DICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,2-DICHLOROBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	1,2-DICHLOROBENZENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DICHLOROBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	1,2-DICHLOROBENZENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	1,2-DICHLOROBENZENE	< 0.2	MG/KG	0.2	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,2-DICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,2-DICHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,2-DICHLOROETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DICHLOROETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DICHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,2-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,2-DICHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,2-DICHLOROPROPANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,2-DICHLOROPROPANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DICHLOROPROPANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,2-DICHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,3-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,3-DICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,3-DICHLOROBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	1,3-DICHLOROBENZENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3-DICHLOROBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,3-DICHLOROBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	1,3-DICHLOROBENZENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,3-DICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	1,3-DICHLOROBENZENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,3-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,3-DICHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4 - 4.5	SW8260B	1,3-DICHLOROPROPANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,3-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,3-DICHLOROPROPANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,3-DICHLOROPROPANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,3-DICHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1,4-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	1,4-DICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,4-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	1,4-DICHLOROBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,4-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	1,4-DICHLOROBENZENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,4-DICHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	1,4-DICHLOROBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,4-DICHLOROBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	1,4-DICHLOROBENZENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	1,4-DICHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	1,4-DICHLOROBENZENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1-ETHYL-2,6-TRIMETHYLCYCLOHEXANE	0.021	MG/KG	0	TI	NJ	A
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	1-ETHYL-2,6-TRIMETHYLCYCLOHEXANE	0.057	MG/KG	0	TI	NJ	A
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	1-METHYL-DECAHYDRONAPHTHALENE	0.0098	MG/KG	0	TI	NJ	A
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	2,2-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	2,2-DICHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	2,2-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	2,2-DICHLOROPROPANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	2,2-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	2,2-DICHLOROPROPANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	2,2-DICHLOROPROPANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	2,2-DICHLOROPROPANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	2,2-DICHLOROPROPANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	2,3-DIHYDRO-1,2-DIMETHYL-1H-INDENE	0.0081	MG/KG	0	TI	NJ	A
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2,4,5-TRICHLOROPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4,5-TRICHLOROPHENOL	< 0.21	MG/KG	0.21	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4,5-TRICHLOROPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2,4,6-TRICHLOROPHENOL	< 5.1	MG/KG	5.1	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4,6-TRICHLOROPHENOL	< 0.22	MG/KG	0.22	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4,6-TRICHLOROPHENOL	< 0.22	MG/KG	0.22	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2,4-DICHLOROPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DICHLOROPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DICHLOROPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2,4-DIMETHYLPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DIMETHYLPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DIMETHYLPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2,4-DIMETHYLPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DINITROPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DINITROPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2,4-DINITROPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DINITROPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DINITROPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2,4-DINITROPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DINITROPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,4-DINITROPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2,4-DINITROPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,6-DINITROTOLUENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,6-DINITROTOLUENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2,6-DINITROTOLUENE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,6-DINITROTOLUENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2,6-DINITROTOLUENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	2-BUTYL-1,3-TRIMETHYL-CYCLOHEXANE	0.015	MG/KG	0	TI	NJ	A
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	2-BUTYL-1,3-TRIMETHYL-CYCLOHEXANE	0.012	MG/KG	0	TI	NJ	A
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2-CHLORONAPHTHALENE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-CHLORONAPHTHALENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-CHLORONAPHTHALENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2-CHLOROPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-CHLOROPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-CHLOROPHENOL	< 0.2	MG/KG	0.2	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	2-CHLOROTOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	2-CHLOROTOLUENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	2-CHLOROTOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	2-CHLOROTOLUENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	2-CHLOROTOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	2-CHLOROTOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	2-CHLOROTOLUENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	2-CHLOROTOLUENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	2-CHLOROTOLUENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	2-HEXANONE	< 0.0055	MG/KG	0.0055	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	2-HEXANONE	< 0.0052	MG/KG	0.0052	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	2-HEXANONE	< 0.0054	MG/KG	0.0054	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	2-HEXANONE	< 0.0059	MG/KG	0.0059	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	2-HEXANONE	< 0.0055	MG/KG	0.0055	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	2-HEXANONE	< 0.0056	MG/KG	0.0056	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	2-HEXANONE	< 0.0049	MG/KG	0.0049	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	2-HEXANONE	< 0.0057	MG/KG	0.0057	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	2-HEXANONE	< 0.0053	MG/KG	0.0053	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2-METHYLNAPHTHALENE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-METHYLNAPHTHALENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-METHYLNAPHTHALENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2-METHYLPHENOL (o-CRESOL)	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-METHYLPHENOL (o-CRESOL)	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-METHYLPHENOL (o-CRESOL)	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	2-METHYL-TRANS-DECALIN	<b>0.014</b>	MG/KG	0	TI	NJ	A
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	2-METHYL-TRANS-DECALIN	<b>0.014</b>	MG/KG	0	TI	NJ	A
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2-NITROANILINE	< 4.7	MG/KG	4.7	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-NITROANILINE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-NITROANILINE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2-NITROPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-NITROPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-NITROPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	3,3'-DICHLOOROBENZIDINE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	3,3'-DICHLOOROBENZIDINE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	3,3'-DICHLOOROBENZIDINE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	3-METHYL-DECANE	0.051	MG/KG	0	TI	NJ	A
B161GR001	B161GR001-A-S01	N	01/06/06	4.5 - 5	SW8270C	3-NITROANILINE	< 4.7	MG/KG	4.7	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	3-NITROANILINE	< 0.21	MG/KG	0.21	ND	U	-
B161GB003	B161GB003-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	3-NITROANILINE	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/06/06	4.5 - 5	SW8270C	4,6-DINITRO-2-METHYLPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4,6-DINITRO-2-METHYLPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GB003	B161GB003-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4,6-DINITRO-2-METHYLPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/06/06	4.5 - 5	SW8270C	4-BROMOPHENYL PHENYL ETHER	< 4.7	MG/KG	4.7	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-BROMOPHENYL PHENYL ETHER	< 0.21	MG/KG	0.21	ND	U	-
B161GB003	B161GB003-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-BROMOPHENYL PHENYL ETHER	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/06/06	4.5 - 5	SW8270C	4-CHLORO-3-METHYLPHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-CHLORO-3-METHYLPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GB003	B161GB003-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-CHLORO-3-METHYLPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/06/06	4.5 - 5	SW8270C	4-CHLOROANILINE	< 4.7	MG/KG	4.7	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-CHLOROANILINE	< 0.21	MG/KG	0.21	ND	U	-
B161GB003	B161GB003-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-CHLOROANILINE	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/06/06	4.5 - 5	SW8270C	4-CHLOROPHENYL PHENYL ETHER	< 4.7	MG/KG	4.7	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-CHLOROPHENYL PHENYL ETHER	< 0.21	MG/KG	0.21	ND	U	-
B161GB003	B161GB003-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-CHLOROPHENYL PHENYL ETHER	< 0.2	MG/KG	0.2	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	4-CHLOROTOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	4-CHLOROTOLUENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	4-CHLOROTOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	4-CHLOROTOLUENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	4-CHLOROTOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	4-CHLOROTOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	4-CHLOROTOLUENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	4-CHLOROTOLUENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	4-CHLOROTOLUENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	4-METHYLPHENOL (p-CRESOL)	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-METHYLPHENOL (p-CRESOL)	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-METHYLPHENOL (p-CRESOL)	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	4-NITROANILINE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-NITROANILINE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-NITROANILINE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	4-NITROANILINE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-NITROPHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	4-NITROPHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	ACENAPHTHENE	< 0.012	MG/KG	0.012	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	ACENAPHTHENE	< 0.012	MG/KG	0.012	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	ACENAPHTHENE	< 0.011	MG/KG	0.011	ND	UJ	4L
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	ACENAPHTHENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	ACENAPHTHENE	< 0.055	MG/KG	0.055	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ACENAPHTHENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ACENAPHTHENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	ACENAPHTHYLENE	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	ACENAPHTHYLENE	< 0.025	MG/KG	0.025	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	ACENAPHTHYLENE	< 0.023	MG/KG	0.023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	ACENAPHTHYLENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	ACENAPHTHYLENE	< 0.11	MG/KG	0.11	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ACENAPHTHYLENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ACENAPHTHYLENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	ACETONE	0.026	MG/KG	0.0055	=	-	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	ACETONE	0.037	MG/KG	0.0052	=	-	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	ACETONE	0.0085	MG/KG	0.0054	TR	J	T
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	ACETONE	0.0076	MG/KG	0.0059	TR	J	T
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	ACETONE	0.0056	MG/KG	0.0055	TR	J	T
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	ACETONE	0.026	MG/KG	0.0056	=	-	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	ACETONE	< 0.0049	MG/KG	0.0049	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	ACETONE	0.0096	MG/KG	0.0057	TR	J	T
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	ACETONE	0.019	MG/KG	0.0053	TR	J	T
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ANILINE (PHENYLAMINE, AMINOBENZENE)	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ANILINE (PHENYLAMINE, AMINOBENZENE)	< 0.2	MG/KG	0.2	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	ANTHRACENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	ANTHRACENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	ANTHRACENE	< 0.0011	MG/KG	0.0011	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	ANTHRACENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	ANTHRACENE	< 0.0055	MG/KG	0.0055	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ANTHRACENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ANTHRACENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	BENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	BENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	BENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	BENZENE	< 0.0024	MG/KG	0.0024	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	BENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	BENZENE	<b>0.008</b>	MG/KG	0.0022	TR	J	T
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	BENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(a)ANTHRACENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	BENZO(a)ANTHRACENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(a)ANTHRACENE	< 0.0011	MG/KG	0.0011	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	BENZO(a)ANTHRACENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(a)ANTHRACENE	<b>0.14</b>	MG/KG	0.0055	=	-	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(a)ANTHRACENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(a)ANTHRACENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(a)PYRENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	BENZO(a)PYRENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(a)PYRENE	< 0.0011	MG/KG	0.0011	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	BENZO(a)PYRENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(a)PYRENE	< 0.0055	MG/KG	0.0055	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(a)PYRENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(a)PYRENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(b)FLUORANTHENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	BENZO(b)FLUORANTHENE	< 0.0025	MG/KG	0.0025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(b)FLUORANTHENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	BENZO(b)FLUORANTHENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(b)FLUORANTHENE	< 0.011	MG/KG	0.011	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(b)FLUORANTHENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(b)FLUORANTHENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(g,h,i)PERYLENE	< 0.0024	MG/KG	0.0024	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	BENZO(g,h,i)PERYLENE	< 0.0025	MG/KG	0.0025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(g,h,i)PERYLENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	BENZO(g,h,i)PERYLENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(g,h,i)PERYLENE	< 0.011	MG/KG	0.011	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(g,h,i)PERYLENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(g,h,i)PERYLENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(k)FLUORANTHENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	BENZO(k)FLUORANTHENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(k)FLUORANTHENE	< 0.0011	MG/KG	0.0011	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	BENZO(k)FLUORANTHENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	BENZO(k)FLUORANTHENE	< 0.0055	MG/KG	0.0055	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(k)FLUORANTHENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZO(k)FLUORANTHENE	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZOIC ACID	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZOIC ACID	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZYL ALCOHOL	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZYL ALCOHOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	BENZYL BUTYL PHTHALATE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZYL BUTYL PHTHALATE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	BENZYL BUTYL PHTHALATE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	bis(2-CHLOROETHOXY) METHANE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	bis(2-CHLOROETHOXY) METHANE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	bis(2-CHLOROETHOXY) METHANE	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-CHLOROETHYL ETHER (2-CHLOROETHYL ETH	< 4.7	MG/KG	4.7	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	2-CHLOROETHYL ETHER (2-CHLOROETHYL ETH	< 0.21	MG/KG	0.21	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	2-CHLOROETHYL ETHER (2-CHLOROETHYL ETH	< 0.2	MG/KG	0.2	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	bis(2-CHLOROISOPROPYL) ETHER	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	bis(2-CHLOROISOPROPYL) ETHER	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	bis(2-ETHYLHEXYL) PHTHALATE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	bis(2-ETHYLHEXYL) PHTHALATE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	bis(2-ETHYLHEXYL) PHTHALATE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	BROMOBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	BROMOBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	BROMOBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BROMOBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BROMOBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	BROMOCHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	BROMOCHLOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOCHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	BROMOCHLOROMETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOCHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOCHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOCHLOROMETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BROMOCHLOROMETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BROMOCHLOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	BROMODICHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	BROMODICHLOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMODICHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	BROMODICHLOROMETHANE	< 0.0024	MG/KG	0.0024	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMODICHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMODICHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMODICHLOROMETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BROMODICHLOROMETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BROMODICHLOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	BROMOFORM	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	BROMOFORM	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOFORM	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	BROMOFORM	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOFORM	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOFORM	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOFORM	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BROMOFORM	< 0.0023	MG/KG	0.0023	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	BROMOMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S02	N	01/05/06	3.7 - 4.17	SW8260B	BROMOMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOMETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	BROMOMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	BROMOMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BROMOMETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	BROMOMETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW6010B	CADMIUM	0.0538	MG/KG	0.0368	TR	J	T
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW6010B	CADMIUM	0.0516	MG/KG	0.0376	TR	J	T
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW6010B	CADMIUM	0.12	MG/KG	0.035	TR	J	T
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW6010B	CADMIUM	0.139	MG/KG	0.0365	TR	J	T

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW6010B	CADMIUM	0.177	MG/KG	0.0336	TR	J	T
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	CADMIUM	0.133	MG/KG	0.0372	TR	J	T
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	CADMIUM	0.102	MG/KG	0.0368	TR	J	T
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	CARBON DISULFIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	CARBON DISULFIDE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	CARBON DISULFIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	CARBON DISULFIDE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	CARBON DISULFIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	CARBON DISULFIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	CARBON DISULFIDE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CARBON DISULFIDE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CARBON DISULFIDE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	CARBON TETRACHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	CARBON TETRACHLORIDE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	CARBON TETRACHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	CARBON TETRACHLORIDE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	CARBON TETRACHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	CARBON TETRACHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	CARBON TETRACHLORIDE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CARBON TETRACHLORIDE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CARBON TETRACHLORIDE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	CHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	CHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	CHLOROBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CHLOROBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CHLOROBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	CHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	CHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	CHLOROETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CHLOROETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CHLOROETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/06/06	7 - 7.5	SW8260B	CHLOROFORM	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	CHLOROFORM	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROFORM	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	CHLOROFORM	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROFORM	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROFORM	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROFORM	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CHLOROFORM	< 0.0023	MG/KG	0.0023	ND	U	-
B027GR002	B027GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CHLOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	CHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	CHLOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	CHLOROMETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	CHLOROMETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CHLOROMETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	CHLOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW6010B	CHROMIUM, TOTAL	43.8	MG/KG	0.599	=	-	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW6010B	CHROMIUM, TOTAL	48.2	MG/KG	0.613	=	-	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW6010B	CHROMIUM, TOTAL	45.2	MG/KG	0.57	=	-	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW6010B	CHROMIUM, TOTAL	36.7	MG/KG	0.595	=	-	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW6010B	CHROMIUM, TOTAL	81.4	MG/KG	0.548	=	-	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	CHROMIUM, TOTAL	53.9	MG/KG	0.606	=	-	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	CHROMIUM, TOTAL	52.6	MG/KG	0.6	=	-	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	CHRYSENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	CHRYSENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	CHRYSENE	< 0.0011	MG/KG	0.0011	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	CHRYSENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	CHRYSENE	0.19	MG/KG	0.0055	=	-	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	CHRYSENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	CHRYSENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	cis-1,2-DICHLOROETHYLENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	cis-1,2-DICHLOROETHYLENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	cis-1,2-DICHLOROETHYLENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	cis-1,2-DICHLOROETHYLENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	cis-1,2-DICHLOROETHYLENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	cis-1,2-DICHLOROETHYLENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	cis-1,2-DICHLOROETHYLENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	cis-1,2-DICHLOROETHYLENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	cis-1,2-DICHLOROETHYLENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	cis-1,3-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	cis-1,3-DICHLOROPROPENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	cis-1,3-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	cis-1,3-DICHLOROPROPENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	cis-1,3-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	cis-1,3-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	cis-1,3-DICHLOROPROPENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	cis-1,3-DICHLOROPROPENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	cis-1,3-DICHLOROPROPENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GR003	B161GR003-A-S01	N	01/06/06	4.5 - 5	SW8260B	DECAHYDRO-2-METHYL-NAPHTHALENE	0.076	MG/KG	0	TI	NU	A
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	DIBENZ(a,h)ANTHRACENE	< 0.0048	MG/KG	0.0048	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	DIBENZ(a,h)ANTHRACENE	< 0.0049	MG/KG	0.0049	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	DIBENZ(a,h)ANTHRACENE	< 0.0046	MG/KG	0.0046	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	DIBENZ(a,h)ANTHRACENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	DIBENZ(a,h)ANTHRACENE	< 0.022	MG/KG	0.022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DIBENZ(a,h)ANTHRACENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DIBENZ(a,h)ANTHRACENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	DIBENZOFURAN	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DIBENZOFURAN	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DIBENZOFURAN	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	7 - 7.5	SW8260B	DIBROMOCHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S01	N	01/06/06	11 - 11.5	SW8260B	DIBROMOCHLOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	DIBROMOCHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	DIBROMOCHLOROMETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	DIBROMOCHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	DIBROMOCHLOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	DIBROMOCHLOROMETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	DIBROMOCHLOROMETHANE	< 0.0023	MG/KG	0.0023	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	DIBROMOCHLOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	DIBROMOMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	DIBROMOMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	DIBROMOMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	DIBROMOMETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	DIBROMOMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	DIBROMOMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	DIBROMOMETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	DIBROMOMETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	DIBROMOMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	DICHLORODIFLUOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	DICHLORODIFLUOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	DICHLORODIFLUOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	DICHLORODIFLUOROMETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	DICHLORODIFLUOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	DICHLORODIFLUOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	DICHLORODIFLUOROMETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	DICHLORODIFLUOROMETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	DICHLORODIFLUOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8015B	DIESEL RANGE ORGANICS	2500	MG/KG	2.7	=	-	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8015B	DIESEL RANGE ORGANICS	450	MG/KG	2.7	=	-	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8015B	DIESEL RANGE ORGANICS	< 2.8	MG/KG	2.8	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8015B	DIESEL RANGE ORGANICS	4	MG/KG	2.9	TR	J	T
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8015B	DIESEL RANGE ORGANICS	< 2.7	MG/KG	2.7	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8015B	DIESEL RANGE ORGANICS	660	MG/KG	2.8	=	-	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8015B	DIESEL RANGE ORGANICS	< 2.6	MG/KG	2.6	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	DIESEL RANGE ORGANICS	14	MG/KG	2.9	=	-	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	DIESEL RANGE ORGANICS	70	MG/KG	2.8	=	-	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	DIETHYL PHTHALATE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DIETHYL PHTHALATE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DIETHYL PHTHALATE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	DIMETHYL PHTHALATE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DIMETHYL PHTHALATE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DIMETHYL PHTHALATE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	DI-n-BUTYL PHTHALATE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DI-n-BUTYL PHTHALATE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DI-n-BUTYL PHTHALATE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	DI-n-OCTYL PHTHALATE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DI-n-OCTYL PHTHALATE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	DI-n-OCTYL PHTHALATE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8015B	ETHANOL	< 0.58	MG/KG	0.58	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8015B	ETHANOL	< 0.58	MG/KG	0.58	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	ETHANOL	< 0.61	MG/KG	0.61	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	ETHANOL	< 0.6	MG/KG	0.6	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	ETHYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	ETHYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	ETHYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB002	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	ETHYLBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	ETHYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	ETHYLBENZENE	<b>0.0024</b>	MG/KG	0.0022	TR	J	T
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	ETHYLBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	ETHYLBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	ETHYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	FLUORANTHENE	< 0.0024	MG/KG	0.0024	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	FLUORANTHENE	< 0.0025	MG/KG	0.0025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	FLUORANTHENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	FLUORANTHENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	FLUORANTHENE	< 0.011	MG/KG	0.011	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	FLUORANTHENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	FLUORANTHENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	FLUORENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	FLUORENE	< 0.0025	MG/KG	0.0025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	FLUORENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	FLUORENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	FLUORENE	< 0.011	MG/KG	0.011	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	FLUORENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	FLUORENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8015B	GASOLINE RANGE ORGANICS (C)	6.2	MG/KG	0.58	=	-	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8015B	GASOLINE RANGE ORGANICS (C)	4.5	MG/KG	0.53	=	-	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8015B	GASOLINE RANGE ORGANICS (C)	< 0.6	MG/KG	0.6	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8015B	GASOLINE RANGE ORGANICS (C)	< 0.6	MG/KG	0.6	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8015B	GASOLINE RANGE ORGANICS (C)	< 0.56	MG/KG	0.56	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8015B	GASOLINE RANGE ORGANICS (C)	3.6	MG/KG	0.65	=	-	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8015B	GASOLINE RANGE ORGANICS (C)	< 0.6	MG/KG	0.6	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	GASOLINE RANGE ORGANICS (C)	1.5	MG/KG	0.53	=	-	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	GASOLINE RANGE ORGANICS (C)	< 0.51	MG/KG	0.51	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	HEXACHLOROBENZENE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	HEXACHLOROBENZENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	HEXACHLOROBENZENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	HEXACHLOROBUTADIENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	HEXACHLOROBUTADIENE	< 0.0021	MG/KG	0.0021	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	HEXACHLOROBUTADIENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	HEXACHLOROBUTADIENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	HEXACHLOROBUTADIENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	HEXACHLOROBUTADIENE	< 5.3	MG/KG	5.3	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	HEXACHLOROBUTADIENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	HEXACHLOROBUTADIENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	HEXACHLOROBUTADIENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	HEXACHLOROBUTADIENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	HEXACHLOROBUTADIENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	HEXACHLOROBUTADIENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	HEXACHLOROCYCLOPENTADIENE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	HEXACHLOROCYCLOPENTADIENE	< 0.23	MG/KG	0.23	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	HEXACHLOROCYCLOPENTADIENE	< 0.23	MG/KG	0.23	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	HEXACHLOROETHANE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	HEXACHLOROETHANE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	HEXACHLOROETHANE	< 0.2	MG/KG	0.2	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	INDENO(1,2,3-c,d)PYRENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	INDENO(1,2,3-c,d)PYRENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	INDENO(1,2,3-c,d)PYRENE	< 0.0011	MG/KG	0.0011	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	INDENO(1,2,3-c,d)PYRENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	INDENO(1,2,3-c,d)PYRENE	< 0.0055	MG/KG	0.0055	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	INDENO(1,2,3-c,d)PYRENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	INDENO(1,2,3-c,d)PYRENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	IODOMETHANE (METHYL IODIDE)	< 0.0055	MG/KG	0.0055	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	IODOMETHANE (METHYL IODIDE)	< 0.0052	MG/KG	0.0052	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8250B	IODOMETHANE (METHYL IODIDE)	< 0.0054	MG/KG	0.0054	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	IODOMETHANE (METHYL IODIDE)	< 0.0059	MG/KG	0.0059	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq QC Flag	Reason Code
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	Iodomethane (Methyl Iodide)	< 0.0055	MG/KG	0.0055	ND	U
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	Iodomethane (Methyl Iodide)	< 0.0056	MG/KG	0.0056	ND	U
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	Iodomethane (Methyl Iodide)	< 0.0049	MG/KG	0.0049	ND	U
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	Iodomethane (Methyl Iodide)	< 0.0057	MG/KG	0.0057	ND	U
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	Iodomethane (Methyl Iodide)	< 0.0053	MG/KG	0.0053	ND	U
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	ISOPHORONE	< 4.7	MG/KG	4.7	ND	U
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ISOPHORONE	< 0.21	MG/KG	0.21	ND	U
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	ISOPHORONE	< 0.2	MG/KG	0.2	ND	U
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	ISOPROPYL ETHER	< 0.0022	MG/KG	0.0022	ND	U
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	ISOPROPYL ETHER	< 0.0021	MG/KG	0.0021	ND	U
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	ISOPROPYL ETHER	< 0.0022	MG/KG	0.0022	ND	U
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	ISOPROPYL ETHER	< 0.0024	MG/KG	0.0024	ND	U
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	ISOPROPYL ETHER	< 0.0022	MG/KG	0.0022	ND	U
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	ISOPROPYL ETHER	< 0.0022	MG/KG	0.0022	ND	U
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	ISOPROPYL ETHER	< 0.0019	MG/KG	0.0019	ND	U
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	ISOPROPYL ETHER	< 0.0023	MG/KG	0.0023	ND	U
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	ISOPROPYL ETHER	< 0.0021	MG/KG	0.0021	ND	U
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	ISOPROPYLBENZENE (CUMENE)	< 0.0022	MG/KG	0.0022	ND	U
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	ISOPROPYLBENZENE (CUMENE)	< 0.0021	MG/KG	0.0021	ND	U
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	ISOPROPYLBENZENE (CUMENE)	< 0.0022	MG/KG	0.0022	ND	U
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	ISOPROPYLBENZENE (CUMENE)	< 0.0024	MG/KG	0.0024	ND	U
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	ISOPROPYLBENZENE (CUMENE)	< 0.0022	MG/KG	0.0022	ND	U
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	ISOPROPYLBENZENE (CUMENE)	< 0.0022	MG/KG	0.0022	ND	U
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	ISOPROPYLBENZENE (CUMENE)	< 0.0019	MG/KG	0.0019	ND	U
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	ISOPROPYLBENZENE (CUMENE)	< 0.0023	MG/KG	0.0023	ND	U
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	ISOPROPYLBENZENE (CUMENE)	< 0.0021	MG/KG	0.0021	ND	U
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW6010B	LEAD	3.6	MG/KG	0.167	=	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW6010B	LEAD	5.78	MG/KG	0.162	=	-	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW6010B	LEAD	8.29	MG/KG	0.174	=	-	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW6010B	LEAD	9.09	MG/KG	0.178	=	-	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW6010B	LEAD	7.95	MG/KG	0.165	=	-	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW6010B	LEAD	6.17	MG/KG	0.172	=	-	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW6010B	LEAD	10.9	MG/KG	0.159	=	-	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	LEAD	9.08	MG/KG	0.176	=	-	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	LEAD	8.31	MG/KG	0.174	=	-	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	0.0029	MG/KG	0.0022	TR	J	T
B161GR001	B161GR001-A-S01	N	01/06/06	4.5 - 5	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	< 0.0023	MG/KG	0.0023	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S02	N	01/05/06	7 - 7.5	SW8015B	METHANOL	< 0.58	MG/KG	0.58	ND	U	-
B161GR001	B161GR001-A-S01	N	01/06/06	11 - 11.5	SW8015B	METHANOL	< 0.56	MG/KG	0.56	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	METHANOL	< 0.61	MG/KG	0.61	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	METHANOL	< 0.6	MG/KG	0.6	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	7 - 7.5	SW8260B	METHYL ETHYL KETONE (2-BUTANONE)	< 0.0055	MG/KG	0.0055	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	METHYL ETHYL KETONE (2-BUTANONE)	< 0.0052	MG/KG	0.0052	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	METHYL ETHYL KETONE (2-BUTANONE)	< 0.0054	MG/KG	0.0054	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	METHYL ETHYL KETONE (2-BUTANONE)	< 0.0059	MG/KG	0.0059	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	METHYL ETHYL KETONE (2-BUTANONE)	< 0.0055	MG/KG	0.0055	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	METHYL ETHYL KETONE (2-BUTANONE)	< 0.0049	MG/KG	0.0049	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	METHYL ETHYL KETONE (2-BUTANONE)	< 0.0057	MG/KG	0.0057	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	METHYL ETHYL KETONE (2-BUTANONE)	< 0.0053	MG/KG	0.0053	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO)	< 0.0055	MG/KG	0.0055	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO)	< 0.0052	MG/KG	0.0052	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO)	< 0.0054	MG/KG	0.0054	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO)	< 0.0059	MG/KG	0.0059	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO)	< 0.0055	MG/KG	0.0055	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO)	< 0.0056	MG/KG	0.0056	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO)	< 0.0049	MG/KG	0.0049	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO)	< 0.0057	MG/KG	0.0057	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO)	< 0.0053	MG/KG	0.0053	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	METHYLENE CHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	METHYLENE CHLORIDE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	METHYLENE CHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	METHYLENE CHLORIDE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	METHYLENE CHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	METHYLENE CHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	METHYLENE CHLORIDE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	METHYLENE CHLORIDE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	METHYLENE CHLORIDE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	NAPHTHALENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/05/06	7 - 7.5	SW8270C	NAPHTHALENE	< 0.012	MG/KG	0.012	ND	U	-
B027GR001	B027GR001-A-S01	N	01/06/06	11 - 11.5	SW8270C	NAPHTHALENE	< 0.011	MG/KG	0.011	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	NAPHTHALENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	NAPHTHALENE	< 0.012	MG/KG	0.012	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	NAPHTHALENE	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	NAPHTHALENE	< 0.012	MG/KG	0.012	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	NAPHTHALENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	NAPHTHALENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	NAPHTHALENE	< 0.011	MG/KG	0.011	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	NAPHTHALENE	< 4.7	MG/KG	4.7	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	NAPHTHALENE	0.006	MG/KG	0.0022	TR	J	T
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	NAPHTHALENE	< 0.055	MG/KG	0.055	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	NAPHTHALENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	NAPHTHALENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	NAPHTHALENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	NAPHTHALENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	NAPHTHALENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	Naphthalene, Decahydro-2,6-dimethyl-	0.01	MG/KG	0	TI	NJ	A
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	n-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	n-BUTYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	n-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	n-BUTYLBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	n-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	n-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	TR	J	T
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	n-BUTYLBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	n-BUTYLBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	n-BUTYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW6010B	NICKEL	17.8	MG/KG	0.549	=	-	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW6010B	NICKEL	17.9	MG/KG	0.561	=	-	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW6010B	NICKEL	23.7	MG/KG	0.522	=	-	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW6010B	NICKEL	53.4	MG/KG	0.545	=	-	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW6010B	NICKEL	63	MG/KG	0.502	=	-	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	NICKEL	29.4	MG/KG	0.555	=	-	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	NICKEL	25.2	MG/KG	0.549	=	-	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	NITROBENZENE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	NITROBENZENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	NITROBENZENE	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	N-NITROBENZENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	N-NITROBENZENE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	N-NITROSODIPHENYLAMINE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	N-NITROSODIPHENYLAMINE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	N-NITROSODIPHENYLAMINE	< 0.2	MG/KG	0.2	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	N-NITROSODIPHENYLAMINE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	N-NITROSODIPHENYLAMINE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	N-NITROSODIPHENYLAMINE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	n-PROPYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	n-PROPYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	n-PROPYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	n-PROPYLBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	n-PROPYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	n-PROPYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	n-PROPYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	n-PROPYLBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	n-PROPYLBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	n-PROPYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	n-PROPYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	E1664	OIL & GREASE, TOTAL REC	< 36.4	MG/KG	36.4	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	E1664	OIL & GREASE, TOTAL REC	< 36	MG/KG	36	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1016 (AROCHLOR 1016)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8082	PCB-1016 (AROCHLOR 1016)	< 0.025	MG/KG	0.025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1016 (AROCHLOR 1016)	< 0.023	MG/KG	0.023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1016 (AROCHLOR 1016)	< 0.024	MG/KG	0.024	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1016 (AROCHLOR 1016)	< 0.022	MG/KG	0.022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1016 (AROCHLOR 1016)	< 0.024	MG/KG	0.024	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1016 (AROCHLOR 1016)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1221 (AROCHLOR 1221)	< 0.024	MG/KG	0.024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1221 (AROCHLOR 1221)	< 0.025	MG/KG	0.025	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1221 (AROCHLOR 1221)	< 0.023	MG/KG	0.023	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1221 (AROCHLOR 1221)	< 0.024	MG/KG	0.024	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1221 (AROCHLOR 1221)	< 0.024	MG/KG	0.024	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1221 (AROCHLOR 1221)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1232 (AROCHLOR 1232)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8082	PCB-1232 (AROCHLOR 1232)	< 0.025	MG/KG	0.025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1232 (AROCHLOR 1232)	< 0.023	MG/KG	0.023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1232 (AROCHLOR 1232)	< 0.024	MG/KG	0.024	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1232 (AROCHLOR 1232)	< 0.022	MG/KG	0.022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1232 (AROCHLOR 1232)	< 0.024	MG/KG	0.024	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1232 (AROCHLOR 1232)	< 0.024	MG/KG	0.024	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1242 (AROCHLOR 1242)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8082	PCB-1242 (AROCHLOR 1242)	< 0.025	MG/KG	0.025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1242 (AROCHLOR 1242)	< 0.023	MG/KG	0.023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1242 (AROCHLOR 1242)	< 0.024	MG/KG	0.024	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1242 (AROCHLOR 1242)	< 0.022	MG/KG	0.022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1242 (AROCHLOR 1242)	< 0.024	MG/KG	0.024	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1242 (AROCHLOR 1242)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1248 (AROCHLOR 1248)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8082	PCB-1248 (AROCHLOR 1248)	< 0.025	MG/KG	0.025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1248 (AROCHLOR 1248)	< 0.023	MG/KG	0.023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1248 (AROCHLOR 1248)	< 0.024	MG/KG	0.024	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1248 (AROCHLOR 1248)	< 0.022	MG/KG	0.022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1248 (AROCHLOR 1248)	< 0.024	MG/KG	0.024	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1248 (AROCHLOR 1248)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1254 (AROCHLOR 1254)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8082	PCB-1254 (AROCHLOR 1254)	< 0.025	MG/KG	0.025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1254 (AROCHLOR 1254)	< 0.023	MG/KG	0.023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1254 (AROCHLOR 1254)	< 0.024	MG/KG	0.024	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1254 (AROCHLOR 1254)	< 0.022	MG/KG	0.022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1254 (AROCHLOR 1254)	< 0.024	MG/KG	0.024	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1254 (AROCHLOR 1254)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1260 (AROCHLOR 1260)	< 0.024	MG/KG	0.024	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8082	PCB-1260 (AROCHLOR 1260)	< 0.025	MG/KG	0.025	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1260 (AROCHLOR 1260)	< 0.023	MG/KG	0.023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1260 (AROCHLOR 1260)	< 0.024	MG/KG	0.024	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8082	PCB-1260 (AROCHLOR 1260)	< 0.022	MG/KG	0.022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1260 (AROCHLOR 1260)	< 0.024	MG/KG	0.024	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8082	PCB-1260 (AROCHLOR 1260)	< 0.024	MG/KG	0.024	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	P-CYMENE (p-ISOPROPYL TOLUENE)	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	P-CYMENE (p-ISOPROPYL TOLUENE)	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	P-CYMENE (p-ISOPROPYL TOLUENE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	P-CYMENE (p-ISOPROPYL TOLUENE)	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	P-CYMENE (p-ISOPROPYL TOLUENE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	P-CYMENE (p-ISOPROPYL TOLUENE)	0.0045	MG/KG	0.0022	TR	J	T
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	P-CYMENE (p-ISOPROPYL TOLUENE)	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	P-CYMENE (p-ISOPROPYL TOLUENE)	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	P-CYMENE (p-ISOPROPYL TOLUENE)	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	PENTACHLOROPHENOL	< 4.9	MG/KG	4.9	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	PENTACHLOROPHENOL	< 0.22	MG/KG	0.22	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	PENTACHLOROPHENOL	< 0.22	MG/KG	0.22	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8310	PHENANTHRENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB002	B161GB002-A-S01	FD	01/06/06	4 - 4.5	SW8310	PHENANTHRENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8310	PHENANTHRENE	< 0.0011	MG/KG	0.0011	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8270C	PHENANTHRENE	< 4.7	MG/KG	4.7	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	PHENANTHRENE	0.029	MG/KG	0.0055	TR	J	T
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	PHENANTHRENE	< 0.21	MG/KG	0.21	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	PHENANTHRENE	< 0.2	MG/KG	0.2	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	PHENOL	< 4.7	MG/KG	4.7	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	PHENOL	< 0.21	MG/KG	0.21	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8270C	PHENOL	< 0.2	MG/KG	0.2	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8270C	PHENOL	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	PHENOL	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8270C	PHENOL	< 0.0011	MG/KG	0.0011	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8310	PYRENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8310	PYRENE	< 0.0012	MG/KG	0.0012	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8270C	PYRENE	< 4.7	MG/KG	4.7	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8310	PYRENE	< 0.0055	MG/KG	0.0055	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	PYRENE	< 0.21	MG/KG	0.21	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8270C	PYRENE	< 0.2	MG/KG	0.2	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8015B	RESIDUAL RANGE ORGANICS	570	MG/KG	2.6	=	-	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8015B	RESIDUAL RANGE ORGANICS	120	MG/KG	2.6	=	-	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8015B	RESIDUAL RANGE ORGANICS	< 2.7	MG/KG	2.7	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8015B	RESIDUAL RANGE ORGANICS	< 2.8	MG/KG	2.8	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8015B	RESIDUAL RANGE ORGANICS	< 2.6	MG/KG	2.6	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8015B	RESIDUAL RANGE ORGANICS	730	MG/KG	2.7	=	-	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8015B	RESIDUAL RANGE ORGANICS	< 2.5	MG/KG	2.5	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	RESIDUAL RANGE ORGANICS	17	MG/KG	2.8	TR	J	T
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8015B	RESIDUAL RANGE ORGANICS	7.7	MG/KG	2.7	TR	J	T
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	SEC-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	SEC-BUTYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	SEC-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	SEC-BUTYLBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	SEC-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	SEC-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	SEC-BUTYLBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	SEC-BUTYLBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	SEC-BUTYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	STYRENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	STYRENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	STYRENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	STYRENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	STYRENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	STYRENE	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	STYRENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	STYRENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	STYRENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	i-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	i-BUTYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	i-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	i-BUTYLBENZENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	i-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	i-BUTYLBENZENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	i-BUTYLBENZENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	i-BUTYLBENZENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	i-BUTYLBENZENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	TERT-AMYL METHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	TERT-AMYL METHYL ETHER	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	TERT-AMYL METHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	TERT-AMYL METHYL ETHER	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	TERT-AMYL METHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	TERT-AMYL METHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	TERT-AMYL METHYL ETHER	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TERT-AMYL METHYL ETHER	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TERT-AMYL METHYL ETHER	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	TERT-BUTYL ETHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	TERT-BUTYL ETHYL ETHER	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	TERT-BUTYL ETHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	TERT-BUTYL ETHYL ETHER	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	TERT-BUTYL ETHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	TERT-BUTYL ETHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	TERT-BUTYL ETHYL ETHER	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TERT-BUTYL ETHYL ETHER	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TERT-BUTYL ETHYL ETHER	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	tert-BUTYL METHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	tert-BUTYL METHYL ETHER	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	tert-BUTYL METHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	tert-BUTYL METHYL ETHER	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	tert-BUTYL METHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	tert-BUTYL METHYL ETHER	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	tert-BUTYL METHYL ETHER	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	tert-BUTYL METHYL ETHER	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	tert-BUTYL METHYL ETHER	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	TETRACHLOROETHYLENE(PCE)	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	TETRACHLOROETHYLENE(PCE)	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	TETRACHLOROETHYLENE(PCE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	TETRACHLOROETHYLENE(PCE)	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	TETRACHLOROETHYLENE(PCE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	TETRACHLOROETHYLENE(PCE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	TETRACHLOROETHYLENE(PCE)	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TETRACHLOROETHYLENE(PCE)	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TETRACHLOROETHYLENE(PCE)	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	TOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	TOLUENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	TOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	TOLUENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	TOLUENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	TOLUENE	<b>0.0026</b>	MG/KG	0.0022	TR	J	T

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	TOLUENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TOLUENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TOLUENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	N	01/06/06	4 - 4.5	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0023	MG/KG	0.0023	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	trans-1,2-DICHLOROETHENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	trans-1,3-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	trans-1,3-DICHLOROPROPENE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-B-S01	N	01/06/06	4 - 4.5	SW8260B	trans-1,3-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	trans-1,3-DICHLOROPROPENE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	trans-1,3-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	trans-1,3-DICHLOROPROPENE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	trans-1,3-DICHLOROPROPENE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	trans-1,3-DICHLOROPROPENE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	trans-1,3-DICHLOROPROPENE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	TRANS-DECAHYDRONAPHTHALENE	0.15	MG/KG	0	TI	NU	A
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	TRICHLOROETHYLENE (TCE)	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	TRICHLOROETHYLENE (TCE)	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	TRICHLOROETHYLENE (TCE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	TRICHLOROETHYLENE (TCE)	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	TRICHLOROETHYLENE (TCE)	< 0.0022	MG/KG	0.0022	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	TRICHLOROETHYLENE (TCE)	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	TRICHLOROETHYLENE (TCE)	<b>0.0023</b>	MG/KG	0.0019	TR	J	T
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TRICHLOROETHYLENE (TCE)	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TRICHLOROETHYLENE (TCE)	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	TRICHLOROFLUOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	TRICHLOROFLUOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	TRICHLOROFLUOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	TRICHLOROFLUOROMETHANE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	TRICHLOROFLUOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	TRICHLOROFLUOROMETHANE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	TRICHLOROFLUOROMETHANE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TRICHLOROFLUOROMETHANE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	TRICHLOROFLUOROMETHANE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	UNDECANE	<b>0.26</b>	MG/KG	0	TI	NJ	A
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	VINYL ACETATE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	VINYL ACETATE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	VINYL ACETATE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	VINYL ACETATE	< 0.0024	MG/KG	0.0024	ND	U	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	VINYL ACETATE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	VINYL ACETATE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	VINYL ACETATE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	VINYL ACETATE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	VINYL ACETATE	< 0.0021	MG/KG	0.0021	ND	U	-
B027GR001	B027GR001-A-S01	N	01/05/06	7 - 7.5	SW8260B	VINYL CHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B027GR001	B027GR001-A-S02	N	01/06/06	11 - 11.5	SW8260B	VINYL CHLORIDE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW8260B	VINYL CHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW8260B	VINYL CHLORIDE	< 0.0024	MG/KG	0.0024	ND	U	-

**Appendix D, continued**  
**Analytical Results for all Constituents in Soil**

**Soil Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW8260B	VINYL CHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW8260B	VINYL CHLORIDE	< 0.0022	MG/KG	0.0022	ND	U	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW8260B	VINYL CHLORIDE	< 0.0019	MG/KG	0.0019	ND	U	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	VINYL CHLORIDE	< 0.0023	MG/KG	0.0023	ND	U	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW8260B	VINYL CHLORIDE	< 0.0021	MG/KG	0.0021	ND	U	-
B161GB001	B161GB001-A-S01	N	01/06/06	4.5 - 5	SW6010B	ZINC	66.1	MG/KG	0.299	=	-	-
B161GB001	B161GB001-B-S01	FD	01/06/06	4 - 4.5	SW6010B	ZINC	69.1	MG/KG	0.306	=	-	-
B161GB002	B161GB002-A-S01	N	01/06/06	4.5 - 5	SW6010B	ZINC	73.2	MG/KG	0.285	=	-	-
B161GB003	B161GB003-A-S01	N	01/06/06	4.5 - 5	SW6010B	ZINC	68.7	MG/KG	0.297	=	-	-
B161GB004	B161GB004-A-S01	N	01/06/06	4.5 - 5	SW6010B	ZINC	94.6	MG/KG	0.274	=	-	-
B161GR001	B161GR001-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	ZINC	91.2	MG/KG	0.303	=	-	-
B161GR002	B161GR002-A-S01	N	01/05/06	3.7 - 4.17	SW6010B	ZINC	67.9	MG/KG	0.3	=	-	-

**APPENDIX E**

**Analytical Results for All Constituents in Groundwater**

**Appendix E**  
**Analytical Results for all Constituents in**  
**Groundwater**

**Groundwater Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	(E)-3-TETRADECENE	98	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,1,1,2-TETRACHLOROETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,1,1-TRICHLOROETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,1,2,2-TETRACHLOROETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,1,2-TRICHLOROETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,1-DICHLOROETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,1-DICHLOROETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,1-DICHLOROETHENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,1-DICHLOROPROPENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,2,3-TRICHLOROBENZENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,2,3-TRICHLOROPROPANE	< 5	UG/L	5	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	1,2,4-TRICHLOROBENZENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,2,4-TRICHLOROBENZENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,2,4-TRIMETHYLBENZENE	39	UG/L	2	=	-	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,2-DIBROMO-3-CHLOROPROPANE	< 5	UG/L	5	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	1,2-DICHLOROBENZENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,2-DICHLOROBENZENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,2-DICHLOROETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,2-DICHLOROPROPANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	7.7	UG/L	2	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	1,3-DICHLOROBENZENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,3-DICHLOROBENZENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,3-DICHLOROPROPANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1,4-DICHLOROBENZENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	1,4-DICHLOROBENZENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	1-METHYL-DECAHYDRONAPHTHALENE	220	UG/L	0	TI	NJ	A

**Appendix E, continued**  
**Analytical Results for all Constituents in**  
**Groundwater**

**Groundwater Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	2,2-DICHLOROPROPANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2,4,5-TRICHLOROPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2,4,6-TRICHLOROPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2,4-DICHLOROPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2,4-DIMETHYLPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2,4-DINITROPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2,4-DINITROTOLUENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2,6,10,14-TETRAMETHYLPENTADECANE	190	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2,6-DINITROTOLUENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	2,7,10-TRIMETHYLDODECANE	410	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2-CHLORONAPHTHALENE	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2-CHLOROPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	2-CHLOROTOLUENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	2-HEXANONE	< 50	UG/L	50	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2-METHYLNAPHTHALENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2-METHYLPHENOL (o-CRESOL)	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2-METHYLTRIDECANE	130	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2-NITROANILINE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2-NITROPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	3,3'-DICHLOROBENZIDINE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	3-NITROANILINE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	4,6-DINITRO-2-METHYLPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	4-BROMOPHENYL PHENYL ETHER	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	4-CHLORO-3-METHYLPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	4-CHLOROANILINE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	4-CHLOROPHENYL PHENYL ETHER	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	4-CHLOROTOLUENE	< 2	UG/L	2	ND	U	-

**Appendix E, continued**  
**Analytical Results for all Constituents in**  
**Groundwater**

**Groundwater Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	4-METHYLPHENOL (p-CRESOL)	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	4-NITROANILINE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	4-NITROPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	7-METHYLTRIDECANE	270	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	ACENAPHTHENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	ACENAPHTHYLENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	ACETONE	< 50	UG/L	50	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	ANILINE (PHENYLAMINE, AMINOBENZENE)	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	ANTHRACENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	BENZENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	BENZO(a)ANTHRACENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	BENZO(a)PYRENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	BENZO(b)FLUORANTHENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	BENZO(g,h,i)PERYLENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	BENZO(k)FLUORANTHENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	BENZOIC ACID	< 47	UG/L	47	ND	UR	3L,4L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	BENZYL ALCOHOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	BENZYL BUTYL PHTHALATE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	bis(2-CHLOROETHOXY) METHANE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	2-CHLOROETHYL ETHER (2-CHLOROETHYL) ETH	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	bis(2-CHLOROISOPROPYL) ETHER	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	bis(2-ETHYLHEXYL) PHTHALATE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	BROMOBENZENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	BROMOCHLOROMETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	BROMODICHLOROMETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	BROMOFORM	< 3	UG/L	3	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	BROMOMETHANE	< 2	UG/L	2	ND	U	-

**Appendix E, continued**  
**Analytical Results for all Constituents in**  
**Groundwater**

**Groundwater Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW6010B	CADMIUM	< 0.0007	MG/L	0.0007	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	CARBON DISULFIDE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	CARBON TETRACHLORIDE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	CHLOROENZENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	CHLOROETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	CHLOROFORM	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	CHLOROMETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW6010B	CHROMIUM, TOTAL	< 0.005	MG/L	0.005	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	CHRYSENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	cis-1,2-DICHLOROETHYLENE	3.2	UG/L	2	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	cis-1,3-DICHLOROPROPENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	DECAHYDRO-2-METHYL-NAPHTHALENE	110	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	DECAHYDRO-2-METHYL-NAPHTHALENE	180	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	DIBENZ(a,h)ANTHRACENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	DIBENZOFURAN	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	DIBROMOCHLOROMETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	DIBROMOMETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	DICHLORODIFLUOROMETHANE	< 3	UG/L	3	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8015B	DIESEL RANGE ORGANICS	27000	UG/L	120	=	-	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	DIETHYL PHTHALATE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	DIMETHYL PHTHALATE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	DI-n-BUTYL PHTHALATE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	DI-n-OCTYL PHTHALATE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8015B	ETHANOL	< 0.5	MG/L	0.5	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8260B	ETHYLBENZENE	4	UG/L	2	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	FLUORANTHENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5-5	SW8270C	FLUORENE	< 24	UG/L	24	ND	UJ	3L

**Appendix E, continued**  
**Analytical Results for all Constituents in**  
**Groundwater**

**Groundwater Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8015B	GASOLINE RANGE ORGANICS (C	6900	UG/L	200	=	-	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	HEPTYLCYCLOHEXANE	190	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	HEXACHLOROBENZENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	HEXACHLOROBUTADIENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	HEXACHLOROCYCLOPENTADIENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	HEXACHLOROCYCLOPENTADIENE	< 24	UG/L	24	ND	UR	3L,4L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	HEXACHLOROETHANE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	INDENO(1,2,3-c,d)PYRENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	IODOMETHANE (METHYL IODIDE)	< 5	UG/L	5	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	ISOPHORONE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	ISOPROPYL ETHER	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	ISOPROPYLBENZENE (CUMENE)	7.6	UG/L	2	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW6010B	LEAD	0.00244	MG/L	0.002	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	M,P-XYLENE (SUM OF ISOMERS)	30	UG/L	5	=	-	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8015B	METHANOL	< 0.5	MG/L	0.5	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	METHYL ETHYL KETONE (2-BUTANONE)	56	UG/L	50	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	THYL ISOBUTYL KETONE (4-METHYL-2-PENTANO	< 50	UG/L	50	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	METHYLENE CHLORIDE	< 5	UG/L	5	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	NAPHTHALENE	< 5	UG/L	5	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	NAPHTHALENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	n-BUTYLBENZENE	14	UG/L	2	=	-	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	N-HEXADECANE (C16)	380	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW6010B	NICKEL	< 0.01	MG/L	0.01	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	NITROBENZENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	N-NITROSODIMETHYLAMINE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	N-NITROSODI-n-PROPYLAMINE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	N-NITROSODIPHENYLAMINE	< 24	UG/L	24	ND	UJ	3L

**Appendix E, continued**  
**Analytical Results for all Constituents in**  
**Groundwater**

**Groundwater Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	n-PROPYLBENZENE	15	UG/L	2	=	J	4H,5
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	O-XYLENE (1,2-DIMETHYLBENZENE)	7.1	UG/L	2	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8082	PCB-1016 (AROCHLOR 1016)	< 0.24	UG/L	0.24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SWE082	PCB-1221 (AROCHLOR 1221)	< 0.24	UG/L	0.24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SWE082	PCB-1232 (AROCHLOR 1232)	< 0.24	UG/L	0.24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SWE082	PCB-1242 (AROCHLOR 1242)	< 0.24	UG/L	0.24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SWE082	PCB-1248 (AROCHLOR 1248)	< 0.24	UG/L	0.24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SWE082	PCB-1254 (AROCHLOR 1254)	5.6	UG/L	0.48	=	-	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SWE082	PCB-1260 (AROCHLOR 1260)	1.6	UG/L	0.24	=	-	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	P-CYMELE (p-ISOPROPYLTOLUENE)	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	PENTACHLOROPHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	PHENANTHRENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	PHENOL	< 24	UG/L	24	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	PYRENE	< 24	UG/L	24	ND	UJ	3L
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8015B	RESIDUAL RANGE ORGANICS	18000	UG/L	150	=	-	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	SEC-BUTYLBENZENE	8.3	UG/L	2	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	STYRENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	t-BUTYLBENZENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	TERT-AMYL METHYL ETHER	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	TERT-BUTYL METHYL ETHER	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	tert-BUTYL METHYL ETHER	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	TETRACHLOROETHYLENE(POE)	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	TOLUENE	5	UG/L	2	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	trans-1,2-DICHLOROETHENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	trans-1,3-DICHLOROPROPENE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	TRANS-DECAHYDRONAPHTHALENE	180	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	TRANS-DECAHYDRONAPHTHALENE	120	UG/L	0	TI	NJ	A

**Appendix E, continued**  
**Analytical Results for all Constituents in**  
**Groundwater**

**Groundwater Results:**

Location	Sample ID	Sample Type	Sample Date	Depth (FT)	Analytical Method	Analyte	Result	Units	Detect Limit	Parvq	QC Flag	Reason Code
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	TRICHLOROETHYLENE (TCE)	2.3	UG/L	2	TR	J	T
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	TRICHLOROFLUOROMETHANE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8270C	Undecane, 2,6-Dimethyl-	73	UG/L	0	TI	NJ	A
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	VINYL ACETATE	< 5	UG/L	5	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW8260B	VINYL CHLORIDE	< 2	UG/L	2	ND	U	-
B161GR001	B161GR001-A-W01	N	01/05/06	5 - 5	SW6010B	ZINC	< 0.0101	MG/L	0.0101	ND	UJ	2

**APPENDIX F**

**Investigative Derived Waste Manifests**

**F001 RCRA HAZARDOUS WASTE**  
**(Liquid from Building 161 UST and Building 161 Excavation Water)**

23876776  
 IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No <b>C A C 0 0 2 5 9 8 5 9 0 5 8 8 8 5</b>		Manifest Document No <b>711060</b>		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.				
3. Generator's Name and Mailing Address <b>Site</b> <b>US ARMY CORPS OF ENGINEERS</b> <b>1063 JEFFERSON STREET</b> <b>HEMECTIA CA 94510</b>		Mailing Address <b>US ARMY CORPS OF ENGINEERS</b> <b>1325 J STREET</b> <b>SACRAMENTO CA 95814</b>		A. State Manifest Document Number <b>23876776</b>		B. State Generator's ID						
4. Generator's Phone <b>PHILIP TRANSPORTATION &amp; REMEDIATION, INC.</b>		6. US EPA ID Number <b>C A D 0 6 3 5 4 7 9 9 6</b>		C. State Transporter's ID <b>0381</b>		D. Transporter's Phone <b>(800)321-1030</b>						
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID (Reserved)		F. Transporter's Phone						
9. Designated Facility Name and Site Address <b>HURLINGTON ENVIRONMENTAL, INC. KENT</b> <b>20245 77TH AVENUE SOUTH</b> <b>KENT, WA 98032</b>		10. US EPA ID Number <b>W A D 9 9 1 2 8 1 7 6 7</b>		G. State Facility's ID		H. Facility's Phone <b>(253) 872-8030</b>						
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		1. Waste Number			
a. <b>NON RCRA HAZARDOUS WASTE LIQUID</b>			<b>004 D H</b>		<b>010220</b>		<b>G</b>		State <b>223</b> EPA/Other <b>WA</b>			
b.									State EPA/Other			
c.									State EPA/Other			
d.									State EPA/Other			
14. Additional Description for Materials Listed Above <b>a) 352659-W - HEATING OIL &amp; WATER RESIDUE - WATER WASTE, WAT07 (1)</b>			K. Handling Codes for Wastes Listed Above									
15. Special Handling Instructions and Additional Information <b>Emergency CALL (800) 567-7055</b>												
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.												
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.												
Printed/Typed Name <b>Martin Fahning</b>			Signature <i>Martin Fahning</i>				Month <b>02</b>		Day <b>22</b>		Year <b>99</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>Attonso G Murillo</b>			Signature <i>Attonso G Murillo</i>				Month <b>02</b>		Day <b>22</b>		Year <b>01</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature				Month		Day		Year	
19. Discrepancy Indication Space												
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.												
Printed/Typed Name			Signature				Month		Day		Year	

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550  
 GENERATOR  
 FACILITY

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>C A C 0 9 0 2 1 5 4 8 5 2 4 6 1 3 1 1</b>		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address <b>USACE 1400 WYLER ST MENDOTA CA 94510 (916)551-6703</b>						A. State Manifest Document Number <b>238767</b>					
4. Generator's Phone						B. State Generator's ID					
5. Transporter 1 Company Name <del>TRANS OCEANIC &amp; MARINE INC</del> <b>BOBSTER INC</b>						6. US EPA ID Number <b>CA 000116020</b>		C. State Transporter's ID (Reserved)			
7. Transporter 2 Company Name						8. US EPA ID Number		D. Transporter's Phone <b>209 823 8411</b>			
9. Designated Facility Name and Site Address <b>MULLINGTON ENVIRONMENTAL, INC. TACOMA 1701 East Alexander Avenue Tacoma WA 98421</b>						10. US EPA ID Number		E. State Transporter's ID (Reserved)			
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity			
a. <b>HAZARDOUS WASTE, LIQUID, N.O.S. (METHYLENE CHLORIDE, TRICHLOROETHYLENE) 9 NR1002 PG112 EPC1111</b>						No.		14. Unit Wt/Vol		I. Waste Number	
						Type		G		State	
						<b>001 T T 02300</b>				EPA/Other	
										State	
										EPA/Other	
J. Additional Descriptions for Materials Listed Above <b>1) 351245-00 WATER OIL W/PCB TRICHLOROETHYLENE - HPM1</b>						K. Handling Codes for Wastes Listed Above					
15. Special Handling Instructions and Additional Information <b>Emergency CALL (800) 567-7854</b>						a.					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.						b.					
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						c.					
Printed/Typed Name <b>Digiton Fishung</b>						Signature <i>[Signature]</i>		Month Day Year <b>01 10 01</b>			
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature <i>[Signature]</i>		Month Day Year <b>01 10 01</b>			
18. Transporter 2 Acknowledgement of Receipt of Materials						Signature		Month Day Year			
19. Discrepancy Indication Space											
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						Signature <i>[Signature]</i>		Month Day Year <b>01 09 01</b>			
Printed/Typed Name <b>Wanda Grondahl</b>						Signature <i>[Signature]</i>		Month Day Year <b>01 09 01</b>			

DO NOT WRITE BELOW THIS LINE

**SOIL**  
**(Building 27 and Building 161 Excavations)**

Profile Number: \_\_\_\_\_  
Expiration Date: \_\_\_\_\_

## WASTE PROFILE SHEET TERMS & CONDITIONS

### Service Agreement on File?

Yes  No

This form is to be used to comply with the requirements of governmental waste screening criteria.

### Profile Addendum Attached?

Yes  No

### A. Waste Generator Information

- Generator/Site Name: US Army Corps of Engineers
- SIC Code: \_\_\_\_\_
- Site Address: 1063 Jefferson St.
- Site City: Benicia
- Site State: CA 7. Zip Code: 94510
- Site County: Solano
- Generator USEPA/Federal ID#: CA002598590
- Site Phone: 916 551-6703 Martin Fahning
- Customer Name: Philip Transportation & Remediation
- Customer Phone: 800 321-1030
- Customer Contact: Denny McElwaine
- Customer FAX: 408 683-0485

### B. Waste Stream and Billing Information

- Waste Description: Soil from UST Removal
- Billing Address: P.O. Box 150 San Martin, CA 95046
- State Waste Code: \_\_\_\_\_
- Process Generating Waste: Excavation of 250 gal. Heating Oil Tank.

- Transporter/Transfer Station: PTR
- Shipping Method: Bins
- Estimated Quantity (Weight & Vol.): 30-40 CY, 50-60 Tons per  Job  Year  Other
- Delivery Date(s): TBD
- Personal Protective Equipment Requirements: Protective Clothing & Eyewear.
- Is this a US Dept. of Transportation (USDOT) Hazardous Material?  
 Yes  No (If no, refer to 10, 11 and 12)
- Reportable Quantity: N/A
- Hazard Class / I.D. #: N/A
- Shipping Name: N/A

Check if additional information is attached. Indicate the number of attached pages: 12

### C. Generator's Certification (Generator's responses, sign and date if required)

- |  | Yes                                 | No                                  |
|--|-------------------------------------|-------------------------------------|
| 1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as defined by USEPA, Canadian, Mexican, State, or Provincial regulation?                               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 2. Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentrations of Polychlorinated Biphenyls (PCBs)?                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Has all relevant information within the possession of the Generator and Customer regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules?                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> N/A        |
| 6. Will all changes that occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. Is this waste from a CERCLA site?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### D. Waste Management's Decision

- Management Method: \_\_\_\_\_
- Designated Facility: \_\_\_\_\_
- Hours of acceptance: \_\_\_\_\_  N/A
- Precautions, Special Handling Procedures, or Limitations on Approval: \_\_\_\_\_

Generic Approval:  Yes  No

Special Waste Decision:  Approved  Disapproved

Sales Person: \_\_\_\_\_

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

Technical Manager: \_\_\_\_\_

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

**GENERATOR AND CUSTOMER MUST READ AND SIGN REVERSE HEREOF**

INITIAL \_\_\_\_\_

**TERMS AND CONDITIONS**

**1. ACCEPTABLE WASTE.** Customer shall deliver and Company shall accept for disposal or other nonpermissible purpose only Acceptable Waste. As used herein, "Customer" shall mean both Customer and Generator based on the reverse hereof. Customer shall deliver the full quantity of Acceptable Waste generated and/or handled by Customer as estimated on the reverse hereof. Acceptable Waste means and includes only such waste as is described on the reverse and which is approved and permitted for management at the Designated Facility listed on the reverse, and shall not include any Nonconforming Waste. As used herein, Nonconforming Waste means waste that: (a) is not in conformance with the description and/or estimated quantity of the waste set forth on the reverse; (b) is or contains any infectious waste, or radioactive, volatile, corrosive, highly flammable, explosive, biomedical, biohazardous material or hazardous, dangerous, or toxic substances, as defined pursuant to or listed or regulated under applicable federal, state or local law, except as stated on the reverse; or (c) is prohibited from being received, managed or disposed of at the Designated Facility by federal, state or local law, regulation, rule, order, ordinance, order, permit or permit condition.

**2. REPRESENTATIONS & WARRANTIES.** Customer represents and warrants that: (a) the description of the waste set forth on the reverse hereof is true and correct in all material respects; (b) all waste delivered to the Designated Facility by Customer shall be Acceptable Waste as defined above and shall not be or contain Nonconforming Waste; (c) Customer shall, and shall cause any carrier with which it contracts to, handle and transport the waste in a safe and appropriate manner in full compliance with all applicable federal, state and local laws, ordinances, decrees, orders, rules or regulations; and (d) Customer has advised its Director of Company's prohibition on delivery of Nonconforming Waste, of the definitions and listing of hazardous waste and hazardous substances under applicable federal and state law and regulations and of the definition of Acceptable Waste herein. Company represents and warrants that it shall manage the Acceptable Waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decrees, orders, rules or regulations.

**3. WASTE REJECTION.** Company may inspect, analyze or test any waste delivered by Customer and/or may reject, refuse or revoke acceptance of any waste if, in the opinion of Company, the waste or tender of delivery fails to conform to or Customer fails to comply with the terms of this Agreement, including by delivery of Nonconforming Waste. Company may also reject any waste which (a) Company reasonably believes would, as a result of or upon disposal or other management, be a violation of local, state or federal law, regulation, ordinance or permit, including local law regulations or conditions applicable in the Designated Facility; or (b) in Company's opinion would present a significant risk to human health or the environment, cause a nuisance or otherwise create or cause Company or Customer to potential liability. Company also shall have the right to refuse to accept or to reject any Acceptable Waste in the event of Customer's failure to pay fees owed by Customer hereunder. In the event Company rejects or revokes acceptance of waste hereunder, Customer shall, at its sole cost, immediately remove or arrange to have the rejected waste removed from Company's control or property. Customer shall pay and/or reimburse Company for any and all costs, damages and/or fees incurred as a result of or failing to comply with the terms of or delivery of Nonconforming Waste or other failure to comply with this Agreement, including costs of inspection, testing and analysis.

**4. SPECIAL HANDLING: TITLE.** If Company elects, in its sole discretion, to handle, rather than reject, Nonconforming Waste, Company shall have the right to manage such Nonconforming Waste in the manner deemed most appropriate by Company given the characteristics of the Nonconforming Waste. Company may store and Customer shall pay additional fees associated with delivery of Nonconforming Waste, including, but not limited to, special handling or disposal charges, and costs associated with different quantities of waste, different delivery dates, modifications in operations, specialized equipment, and other operational, environmental, health, safety or regulatory requirements. Title to and ownership of Acceptable Waste shall transfer to Company upon its final acceptance of Acceptable Waste. Title to, ownership of and liability for Nonconforming Waste shall at all times remain with Customer. Revocation of acceptance by Company shall operate to re-vest all incidents of ownership in Customer.

**5. INDEMNITY.** Each party hereto (the "Indemnitor") hereby agrees to indemnify, hold harmless and defend the other party, and its officers, directors, employees and agents (collectively, the "Indemnitees"), from and against any and all liabilities, penalties, fines, forfeitures, taxes, demands, claims, causes of action, suits, judgments and costs and expenses (including incidental costs, including attorney's fees (collectively, "Damages"), which any or all of the Indemnitees may hereafter suffer, incur, be responsible for or pay-out, including for personal injury, property damage, or contamination or other adverse effects on the environment; to the extent caused by, or arising from or in connection with the breach of any representations or warranties of the Indemnitor set forth in this Agreement, or any negligent actions or omissions or willful misconduct of the Indemnitor, its employees, officers, agents, directors or agents, or the violation of any law, ordinance or regulation, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq., as amended. Such indemnity shall exclude Damages to the extent they arise as a result of any negligent actions or omissions or willful misconduct of the Indemnitees or their employees, officers, directors or agents. The Indemnification obligation hereunder shall arise only in excess of any available and collectible insurance proceeds and the Indemnitor shall be liable hereunder to pay only its share of the amount of Damages, if any, that exceeds the total amount that all insurance has paid for the Damages, plus the total of all deductibles and self-insured expenses paid under all insurance policies. This obligation in this Section 5 shall survive the performance and termination of this Agreement.

**6. UNCONTROLLABLE CIRCUMSTANCES; TERMINATION.** Except for the obligation to pay fees provided, the performance of this Agreement may be discontinued or temporarily suspended by either party, and neither party shall be deemed to be in breach of this Agreement, in the event performance is prevented by a cause or causes beyond the reasonable control of the affected party. Such causes shall include, but not be limited to, acts of God, acts of war, riot, fire, explosion, accident, flood or embargo, governmental laws (including ordinances), permit conditions, regulations, restrictions (including local law), condition of the waste, infection or actions or omissions of third party transporters or other contractors, suppliers or vendors. Company may immediately terminate management services hereunder upon written notice to Customer in the event Customer breaches any term, provision or obligation under this Agreement, in which case, Customer shall be liable for and shall pay to Company all costs and losses incurred by Company as a result of or relating to any such termination.

**7. MISCELLANEOUS.** This Agreement shall be governed by the laws of the state in which the Designated Facility is located. Every provision of this Agreement shall be severable. This Agreement represents the entire understanding and Agreement between the parties relating to the management of waste, except that, if the parties, or their parent companies, are parties to a national service agreement, the terms of such national service agreement shall govern over any inconsistent terms in this Agreement. No representation, statement or Agreement, unless agreed to by the parties in writing, shall modify, change, amend or otherwise affect the obligations undertaken in this Agreement. No waiver by either party of any one or more defaults or breaches by the other in the performance of this Agreement shall operate or be construed as a waiver of any future defaults or breaches. Customer may not assign this Agreement without the prior written consent of Company. This Agreement shall be binding upon and shall inure to the benefit of the parties' successors and assigns.

**THIS IS A LEGALLY BINDING CONTRACT. EACH UNDERSIGNED INDIVIDUAL ACKNOWLEDGES THAT HE/SHE HAS READ AND UNDERSTANDS THE TERMS AND CONDITIONS OF THIS AGREEMENT SET FORTH ABOVE AND ON THE REVERSE HEREOF AND THAT HE/SHE HAS THE AUTHORITY TO SIGN ON BEHALF OF CUSTOMER/GENERATOR AND COMPANY. BY SIGNING BELOW, CUSTOMER AND GENERATOR INDICATE A FIRST HAND KNOWLEDGE OF THE WASTE'S CHARACTERISTICS AND CERTIFY THE TRUTH OF THE INFORMATION ON THE REVERSE HEREOF. AGREED TO AS OF THE DATES BELOW.**

CUSTOMER:  
  
 AUTHORIZED SIGNATURE  
 Debra M. ...  
 NAME, TITLE

GENERATOR:  
  
 AUTHORIZED SIGNATURE  
 Marjeh Fahmy  
 NAME, TITLE

COMPANY: ALTIMORE LANDFILL  
  
 AUTHORIZED SIGNATURE  
 NAME, TITLE

BROWN AND CALDWELL

CHAIN OF CUSTODY RECORD

WATERS

COC No. 111

2701 Prospect Park Dr.  
Rancho Cordova, CA 95670  
916-444-0123 / FAX: 916-635-8805

9665 Chesapeake Dr. / Suite 201  
San Diego, CA 92123  
858-514-8822 / FAX 858-514-8833

400 Exchange / Suite 100  
Irvine, CA 92602  
714-730-7600 / FAX 714-734-0940

PROJECT NAME: Bessie Arsenal

PROJECT NUMBER: 12336-012

LABORATORY NAME & ADDRESS:

Conex  
1335 W 25th Street, Torrance, CA 90501

LINE NO.	SAMPLE - I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLERS INITIALS	NUMBER OF CONTAINERS	CONTAINER TYPE AND SIZE	REFERR. VATTN	MATRIX CODE	ANALYSES REQUESTED	FIELD FILTERED	QC - REQ	TAT	SAMPLING METHOD	DEPTH (FT.) BEGIN	DEPTH (FT.) END	PO REQING (GAL)
01	Bin 2209	1/9/06	11:35	GT	1	2x6 SS Sleeve	Nine	S	Metals (Cd, Cr, Pb, Zn, Ni) 8000 PCBS 20000			5HL	6			
02	Bin 2109	1/6/06	11:35	GT	3	Evanes	Nine	S	VOCs by 92603			5HL	6			
03																
04																
05																
06																
07																
08																
09																
10																

COLLECTED & RELEASED BY: [Signature] COOLER I.D.:

RECEIVED BY: [Signature] DATE: 1/9/06 TIME: 13:00

RELINQUISHED BY: DATE: 1/10/06 TIME: 9:35

COMMENTS (see note on back):

7-8-06

RECORD RETURNED BY:

DATE: / /

COOLER:

SHIPPING NUMBER: 8329 9904 4154

DISTRIBUTION: WHITE-PROJECT FILE • CANARY-LAB RECEIPT • PINK-DATA MANAGEMENT • GOLDENROD-FIELD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

BROWN AND CALDWELL

CHAIN OF CUSTODY RECORD

06/10/08

CUC NO. 1.1

BE 000348

2701 Prospect Park Dr.  
Rancho Cordova, CA 95670  
916-444-0123 / FAX 916-635-8805

9665 Chesapeake Dr. / Suite 201  
San Diego, CA 92123  
858-514-8822 / FAX 858-514-8833

201 N. Civic Dr. / Suite 115  
Walnut Creek, CA 94596  
925-937-9010 / FAX 925-937-9026

400 Exchange / Suite 100  
Irvine, CA 92602  
714-730-7600 / FAX 714-734-0940

PROJECT NAME: Banister Arsenic

LABORATORY NAME & ADDRESS:

EMAX  
1935 W. 105th St. Torrance CA 90501

LINE NO.	SAMPLE - I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLERS INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	FIELD FILTERED	QC - REQ	TAT	SAMPLING METHOD	DEPTH (FT) BEGIN END	RD READING (PPM)
01	Bin 2206	4/9/06	12:55	gr	1	26 SS Stump	None	S	Metals (Cd, Cr, Pb, Hg, Zn) PCBs (3080)			SHL	G		
02	Bin 2206	4/9/06	12:55	gr	3	Emmos	None	S	VCs by 92605			SHL	G		
03															
04															
05															
06															
07															
08															
09															
10															
COLLECTED & RELEASED BY: <u>[Signature]</u>										COOLER I.D.:		COMMENTS (see note on back):			
RECEIVED BY: <u>[Signature]</u>										DATE	TIME				
										DATE	TIME				
										DATE	TIME				
RETURNED BY: <u>[Signature]</u>										DATE	TIME				
COUNT: <u>1</u>										SHIPPING NUMBER: <u>8329 9901 Y151</u>					

DISTRIBUTION: WHITE-PROJECT FILE • CANARY-LAB RECEIPT • PINK-DATA MANAGEMENT • GOLDENROD-FIELD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

SV5035/82608  
VOLATILE ORGANICS BY GC/MS

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Client      : BROWN & CALDWELL      Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL Date Received: 01/10/06
Batch No.   : 06A038                Date Extracted: 01/13/06 14:46
Sample ID:  81N 2209                Date Analyzed: 01/13/06 14:46
Lab Samp ID: A038-D1R              Dilution Factor: .85
Lab File ID: RAC248                Matrix: SOIL
Ext Btch ID: V067A20              % Moisture: 19.1
Calib. Ref.: RAC161                Instrument ID: T-067
  
```

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,2-TETRACHLOROETHANE	ND	11	11
1,1,2-TRICHLOROETHANE	ND	11	11
1,1,2,2-TETRACHLOROETHANE	ND	11	11
1,1,2-TRICHLOROETHANE	ND	11	11
1,1-DICHLOROETHANE	ND	11	11
1,2-DICHLOROETHANE	ND	11	11
1,1-DICHLOROPROPENE	ND	2	2
1,2,3-TRICHLOROBENZENE	ND	11	11
1,2,3-TRICHLOROPROPANE	ND	11	11
1,2,4-TRICHLOROBENZENE	ND	11	11
1,2,4-TRIMETHYLBENZENE	ND	11	11
1,2-DIBROMO-3-CHLOROPROPANE	ND	2	2
1,2-DIBROMOETHANE	ND	11	11
1,2-DICHLOROBENZENE	ND	11	11
1,2-DICHLOROETHANE	ND	11	11
1,2-DICHLOROPROPANE	ND	11	11
1,3,5-TRIMETHYLBENZENE	ND	11	11
1,3-DICHLOROBENZENE	ND	11	11
1,3-DICHLOROPROPANE	ND	11	11
1,4-DICHLOROBENZENE	ND	11	11
1,4-DICHLOROPROPANE	ND	11	11
2-BUTANONE	ND	110	110
3-CHLOROTOLUENE	ND	11	11
2-HEXANONE	ND	2	2
4-CHLOROTOLUENE	ND	2	2
4-METHYL-2-PENTANONE	ND	2	2
ACETONE	15	2	2
BENZENE	ND	11	11
BROMOBENZENE	ND	11	11
BROMOCHLOROMETHANE	ND	11	11
BROMODICHLOROMETHANE	ND	11	11
BROMOFORM	ND	11	11
BROMOMETHANE	2	2	2
CARBON DISULFIDE	4.9	11	11
CARBON TETRACHLORIDE	ND	11	11
CHLOROBENZENE	ND	11	11
DIBROMOCHLOROMETHANE	ND	11	11
CHLOROETHANE	ND	2	2
CHLOROFORM	ND	11	11
CHLOROMETHANE	ND	2	2
CIS-1,2-DICHLOROETHENE	ND	11	11
CIS-1,3-DICHLOROPROPENE	ND	11	11
DTBROMOMETHANE	ND	11	11
DICHLORODIFLUOROMETHANE	ND	11	11
DPE	ND	53	53
ETBE	ND	53	53
ETHYLBENZENE	ND	11	11
HEXACHLOROCYCLOHEPTADIENE	ND	11	11
IODOETHANE	ND	11	11
ISOPROPYLBENZENE	ND	11	11
METHYLENE CHLORIDE	2	2	2
MTBE	ND	11	11
M/P-XYLENES	ND	21	21
NAPHTHALENE	ND	21	21
N-BUTYLBENZENE	ND	11	11
O-XYLENE	ND	11	11
P-ISOPROPYLTOLUENE	ND	11	11
SEC-BUTYLBENZENE	10	11	11
STYRENE	ND	11	11
TAME	ND	53	53
TERT-BUTYLBENZENE	ND	11	11
TETRACHLOROETHENE	ND	11	11
TOLUENE	ND	11	11
TRANS-1,2-DICHLOROETHENE	ND	11	11
TRANS-1,3-DICHLOROPROPENE	ND	11	11
TRICHLOROETHENE	ND	11	11
TRICHLOROFLUOROMETHANE	ND	11	11
VINYL ACETATE	ND	53	53
VINYL CHLORIDE	ND	11	11
FREON113	ND	47	47
N-PROPYLBENZENE	ND	11	11
SURROGATE PARAMETERS			
1,2-DICHLOROETHANE-D4	% RECOVERY	QC LIMIT	
TOLUENE-D8	98	70-130	
BROMOFLUOROBENZENE	103	70-130	
	165*	70-130	

PQL: Practical Quantitation Limit  
Preservation Date: 01/10/06 16:00

SW5035/82608  
VOLATILE ORGANICS BY GC/MS

```

=====
Client      : BROWN & CALDWELL           Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL     Date Received: 01/10/06
Batch No.   : 06A038                     Date Extracted: 01/13/06 14:46
Sample ID   : BIN 2209                   Date Analyzed: 01/13/06 14:46
Lab Smp ID  : A038-01R                   Dilution Factor: .85
Lab File ID : RAC248                      Matrix: SOIL
Ext Btch ID : VD67A20                     % Moisture: 19.1
Calib. Ref.: RAC161                       Instrument ID: T-067
=====
  
```

```

Number of TIC : 5
PARAMETERS
-----
RESULTS      RTTIME      Q
(ug/kg)      min      Value
-----
NAPHTHALENE, DECAHYDRO-, TRANS-      720J      21.92      96
TRANS-DECALIN, 2-METHYL-              430J      23.44      94
NAPHTHALENE, DECAHYDRO-2-METHYL-     480J      24.11      90
DODECANE, 6-METHYL-                   420J      24.32      90
CYCLOHEXANE, 2-BUTYL-1,1,3-TRIMETHYL- 280J      26.09      90
  
```

SWS035/8260B  
VOLATILE ORGANICS BY GC/MS

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=====
Client   : BROWN & CALDWELL      Date Collected: 01/09/06
Project  : FORMER BENICIA ARSENAL Date Received:    01/10/06
Batch No.: 06A038                Date Extracted:   01/13/06 15:54
Sample ID: BIN 2206              Date Analyzed:    01/13/06 15:54
Lab Samp ID: A038-03R           Dilution Factor: .89
Lab File ID: RAC250              Matrix:           SOIL
Ext Btch ID: V067A20            % Moisture:      21.8
Calib. Ref.: RAC161             Instrument ID:    T-067
=====
  
```

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	11	2
1,1,1-TRICHLOROETHANE	ND	11	2
1,1,2-2-TETRACHLOROETHANE	ND	11	2
1,1,2-TRICHLOROETHANE	ND	11	2
1,1-DICHLOROETHANE	ND	11	2
1,1-DICHLOROETHENE	ND	11	2
1,1-DICHLOROPROPENE	ND	23	2
1,2,3-TRICHLOROBENZENE	ND	11	2
1,2,3-TRICHLOROPROPANE	ND	11	2
1,2,4-TRICHLOROBENZENE	ND	11	2
1,2,4-TRIMETHYLBENZENE	97	23	2
1,2-DIBROMO-3-CHLOROPROPANE	ND	23	2
1,2-DIBROMOETHANE	ND	11	2
1,2-DICHLOROBENZENE	ND	11	2
1,2-DICHLOROETHANE	ND	11	2
1,2-DICHLOROPROPANE	ND	11	2
1,3,5-TRIMETHYLBENZENE	ND	11	2
1,3-DICHLOROBENZENE	ND	15	2
1,3-DICHLOROPROPANE	ND	11	2
1,4-DICHLOROBENZENE	ND	11	2
1,2-DICHLOROPROPANE	ND	110	2
BUTANONE	ND	11	2
CHLOROTOLUENE	ND	23	2
2-HEXANONE	ND	23	2
4-CHLOROTOLUENE	ND	11	2
4-METHYL-2-PENTANONE	ND	23	2
ACETONE	ND	23	2
BENZENE	ND	11	2
BROMOBENZENE	ND	11	2
BROMOCHLOROMETHANE	ND	11	2
BROMODICHLOROMETHANE	ND	11	2
BROMOFORM	ND	23	2
BROMOMETHANE	ND	23	2
CARBON DISULFIDE	ND	11	2
CARBON TETRACHLORIDE	ND	11	2
CHLOROBENZENE	ND	11	2
DIBROMOCHLOROMETHANE	ND	11	2
CHLOROETHANE	ND	23	2
CHLOROFORM	ND	11	2
CHLOROMETHANE	ND	23	2
CIS-1,2-DICHLOROETHENE	ND	11	2
CIS-1,3-DICHLOROPROPENE	ND	11	2
DIBROMOMETHANE	ND	11	2
DICHLORODIFLUOROMETHANE	ND	11	2
DIPE	ND	57	2
ETBE	ND	27	2
ETHYLBENZENE	3.8J	11	2
HEXACHLOROCYCLOHEPTADIENE	ND	11	2
IODOMETHANE	ND	11	2
ISOPROPYLBENZENE	39	11	2
METHYLENE CHLORIDE	ND	23	2
MTBE	ND	11	2
M/P-XYLENES	29	23	2
NAPHTHALENE	11J	23	2
N-BUTYLBENZENE	50	11	2
O-XYLENE	9.2J	11	2
P-ISOPROPYLTOLUENE	13	11	2
SEC-BUTYLBENZENE	50	11	2
STYRENE	ND	11	2
TAME	ND	57	2
TERT-BUTYLBENZENE	5.6J	11	2
TETRACHLOROETHENE	ND	11	2
TOLUENE	ND	11	2
TRANS-1,2-DICHLOROETHENE	ND	11	2
TRANS-1,3-DICHLOROPROPENE	ND	11	2
TRICHLOROETHENE	ND	11	2
TRICHLOROFLUOROMETHANE	ND	11	2
VINYL ACETATE	ND	57	2
VINYL CHLORIDE	ND	11	2
FREON113	ND	46	2
N-PROPYLBENZENE	80	11	2
SURROGATE PARAMETERS			
	% RECOVERY	QC LIMIT	
1,2-DICHLOROETHANE-D4	106	70-130	
TOLUENE-D8	103	70-130	
BROMOFLUOROBENZENE	194*	70-130	

PQL: Practical Quantitation Limit  
Preservation Date: 01/10/06 16:00

SWS035/B260B  
VOLATILE ORGANICS BY GC/MS

```
=====
Client   : BROWN & CALDWELL           Date Collected: 01/09/06
Project  : FORMER BENICIA ARSENAL      Date Received: 01/10/06
Batch No.: 06A038                      Date Extracted: 01/13/06 15:54
Sample ID: BIN 2206                    Date Analyzed: 01/13/06 15:54
Lab Samp ID: A038-03R                 Dilution Factor: 89
Lab File ID: RAC250                   Matrix: SOIL
Ext Btch ID: V067A20                 % Moisture: 21.8
Calib. Ref.: RAC161                   Instrument ID: T-067
=====
```

```
Number of TIC : 5
PARAMETERS
=====
RESULTS RTTIME  Q
(ug/kg)  min    Value
=====
CYCLOHEXANE, METHYL-      180J  10.62  96
CYCLOHEXANE, BUTYL-      290J  20.14  90
NAPHTHALENE, DECAHYDRO-, TRANS- 550J  51.91  98
CYCLOHEXANE, PENTYL-     290J  53.28  87
NAPHTHALENE, DECAHYDRO-2-METHYL- 370J  24.11  97
```

SW3550B/8082  
PCBs

```

=====
Client      : BROMM & CALDWELL           Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL     Date Received: 01/10/06
Batch No.   : 06A038                     Date Extracted: 01/11/06 13:30
Sample ID:  BIN 2209                     Date Analyzed: 01/13/06 21:00
Lab Samp ID: A038-01                    Dilution Factor: 1
Lab File ID: SA12115A                   Matrix      : SOIL
Ext Btch ID: 60A010S                     % Moisture  : 19.1
Calib. Ref.: SA12113A                    Instrument ID : GCT008
=====

```

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
PCB-1016	(ND)   ND	.25	.025   .025
PCB-1221	(ND)   ND	.25	.025   .025
PCB-1232	(ND)   ND	.25	.025   .025
PCB-1242	(ND)   ND	.25	.025   .025
PCB-1248	(ND)   ND	.25	.025   .025
PCB-1254	(ND)   ND	.25	.025   .025
PCB-1260	(ND)   ND	.25	.025   .025

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(97)   94	40-140
DECACHLOROBIPHENYL	(93)   92	40-140

PQL: Practical Quantitation Limit  
 Left of | is related to first column ; Right of | related to second column  
 Final result indicated by ( )  
 \* Out side of QC Limit

SW35508/8082  
PCBs

```

=====
Client      : BROWN & CALDWELL           Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL     Date Received: 01/10/06
Batch No.   : 06A038                     Date Extracted: 01/11/06 13:30
Sample ID   : BIN 2206                   Date Analyzed: 01/17/06 14:26
Lab Samp ID : A038-03                    Dilution Factor: 1
Lab File ID : SA17011A                   Matrix          : SD1L
Ext Btch ID : 60A010S                    % Moisture      : 21.8
Calib. Ref. : SA17002A                   Instrument ID   : GCT008
=====
  
```

PARAMETERS	RESULTS		PQL	MDL
	(mg/kg)		(mg/kg)	(mg/kg)
PCB-1016	(ND)	ND	.26	.026   .026
PCB-1221	(ND)	ND	.26	.026   .026
PCB-1232	(ND)	ND	.26	.026   .026
PCB-1242	(ND)	ND	.26	.026   .026
PCB-1248	(ND)	ND	.26	.026   .026
PCB-1254	(.25J)	.25J	.26	.026   .026
PCB-1260	.075J	(.076J)	.26	.026   .026

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	88   (95)	40-140
DECACHLOROBIPHENYL	(86)   84	40-140

PQL: Practical Quantitation Limit  
 Left of | is related to first column ; Right of | related to second column  
 Final result indicated by ( )  
 \* Out side of QC Limit

Calib. Ref. for PCB-1254: SA17003A

SW30508/60108  
METALS BY ICP

=====  
Client : BROWN & CALDWELL Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06  
SDG NO. : 06A038 Date Extracted: 01/10/06 13:40  
Sample ID: BIN 2209 Date Analyzed: 01/17/06 20:51  
Lab Samp ID: A038-01 Dilution Factor: 1  
Lab File ID: 107AD14038 Matrix : SOIL  
Ext Btch ID: 1PA017S % Moisture : 19.1  
Calib. Ref.: 107AD14034 Instrument ID : EMAXT107  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Chromium	27.5	2.06	.618
Nickel	17.5	2.06	.566
Zinc	110	1.03	.309

7004

SW30508/60108  
METALS BY TRACE ICP

=====  
Client : BROWN & CALDWELL                    Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL            Date Received: 01/10/06  
SDG NO. : 06A038                            Date Extracted: 01/10/06 13:40  
Sample ID: BIN 2209                         Date Analyzed: 01/17/06 20:42  
Lab Samp ID: A038-01                        Dilution Factor: 1  
Lab File ID: 131A012038                    Matrix : SOIL  
Ext Btch ID: IPA017S                        % Moisture : 19.1  
Calib. Ref.: 131A012034                    Instrument ID : EMAX131  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Cadmium	.304J	.515	.0379
Lead	19.1	1.03	.179

7005

SW30508/60108  
METALS BY ICP

=====  
Client : BROWN & CALDWELL                   Date Collected: 01/09/06  
Project : FORMER BEMICIA ARSENAL            Date Received: 01/10/06  
SDG NO. : 06A038                            Date Extracted: 01/10/06 13:40  
Sample ID: BIM 2206                         Date Analyzed: 01/17/06 21:00  
Lab Samp ID: A038-03                       Dilution Factor: 1  
Lab File ID: 107A014040                   Matrix : SOIL  
Ext Btch ID: IPA017S                       % Moisture : 21.8  
Calib. Ref.: 107A014034                   Instrument ID : EMAX1107  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Chromium	37.7	2.13	.639
Nickel	34.4	2.13	.586
Zinc	83.9	1.07	.32

7008

SW3050B/6010B  
METALS BY TRACE ICP

=====  
Client : BROWN & CALDWELL Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06  
SDG NO. : 06A038 Date Extracted: 01/10/06 13:40  
Sample ID: BIN 2206 Date Analyzed: 01/17/06 20:55  
Lab Samp ID: A038-03 Dilution Factor: 1  
Lab File ID: 131A012040 Matrix : SOIL  
Ext Btch ID: IPA017S % Moisture : 21.8  
Calib. Ref.: 131A012034 Instrument ID : EMAX131  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
-----	-----	-----	-----
Cadmium	.179J	.533	.0393
Lead	13.5	1.07	.185

Profile Number: \_\_\_\_\_  
Expiration Date: \_\_\_\_\_

## WASTE PROFILE SHEET TERMS & CONDITIONS

### Service Agreement on File?

Yes  No

This form is to be used to comply with the requirements of governmental waste screening criteria.

### Profile Addendum Attached?

Yes  No

#### A. Waste Generator Information

- Generator/Site Name: US Army Corps of Engineers
- SIC Code: \_\_\_\_\_
- Site Address: 940 Tyler St.
- Site City: Benicia
- Site State: CA 7. Zip Code: 94510
- Site County: Salano
- Generator USEPA/Federal ID#: CAC002558589
- Site Phone: (916) 551-6703 Martin Fahning-USACE
- Customer Name: Philip Transportation & Demolition
- Customer Phone: 800 321-1030
- Customer Contact: Denny McQuaine
- Customer FAX: 408 683-0485

#### B. Waste Stream and Billing Information

- Waste Description: Soil from UST/Boiler Excavation
- State Waste Code: \_\_\_\_\_
- Process Generating Waste: Excavation of Soil from around a Diesel Tank.
- Billing Address: P.O. Box 150 San MARTIN CA 95046
- Transporter/Transfer Station: PTR
- Shipping Method: Truck
- Estimated Quantity (Weight & Vol.): 70-80 c.y., est. 600 Tons per  Job  Year  Other \_\_\_\_\_
- Delivery Date(s): TBD
- Personal Protective Equipment Requirements: Protective Clothing & Eyewear.
- Is this a US Dept. of Transportation (USDOT) Hazardous Material?  
 Yes  No (If no, see 10, 11 and 12)
- Reportable Quantity: N/A
- Hazard Class / I.D. #: N/A
- Shipping Name: N/A

Check if additional information is attached. Indicate the number of attached pages: 24

#### C. Generator's Certification (Generator certifies, approves, and warrants the following)

- |  | Yes                                 | No  |
|--|-------------------------------------|---|
| 1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as defined by USEPA, Canadian, Mexican, State, or Provincial regulation?                               | <input type="checkbox"/>            | <input checked="" type="checkbox"/>                   |
| 2. Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentrations of Polychlorinated Biphenyls (PCBs)?                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/>                   |
| 3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>                              |
| 4. Has all relevant information within the possession of the Generator and Customer regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor? | <input checked="" type="checkbox"/> | <input type="checkbox"/>                              |
| 5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.20(e) or equivalent rules?                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> N/A |
| 6. Will all changes that occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?        | <input checked="" type="checkbox"/> | <input type="checkbox"/>                              |
| 7. Is this waste from a CERCLA site?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/>                   |

#### D. Waste Management's Decision

- Management Method: \_\_\_\_\_
- Designated Facility: \_\_\_\_\_
- Hours of acceptance: \_\_\_\_\_  N/A
- Precautions, Special Handling Procedures, or Limitations on Approval: \_\_\_\_\_

Generic Approval:  Yes  No

Special Waste Decision:  Approved  Disapproved

Sales Person: \_\_\_\_\_ Date: \_\_\_\_\_ Technical Manager: \_\_\_\_\_ Date: \_\_\_\_\_

**GENERATOR AND CUSTOMER MUST READ AND SIGN REVERSE HEREOF**

INITIAL \_\_\_\_\_

**TERMS AND CONDITIONS**

**1. ACCEPTABLE WASTE.** Customer shall deliver and Company shall accept for disposal or other management purpose only Acceptable Waste. As used herein, "Customer" shall mean both Customer and Generator listed on the reverse hereof. Customer shall deliver the full quantity of Acceptable Waste generated and/or handled by Customer as estimated on the reverse hereof. Acceptable Waste means and includes only such waste as is described on the reverse and which is approved and permitted for management at the Designated Facility listed as the reverse, and shall not include any Nonconforming Waste. As used herein, Nonconforming Waste means waste that: (a) is not in conformance with the description and/or estimated quantity of the waste set forth on the reverse; (b) is or contains any infectious waste, or radioactive, volatile, corrosive, highly flammable, explosive, biomedical, biohazardous material or hazardous, dangerous, or toxic substances, as defined pursuant to or listed or regulated under applicable federal, state or local law, except as stated on the reverse; or (c) is prohibited from being received, managed or disposed of at the Designated Facility by federal, state or local law, regulation, rule, code, ordinance, order, permit or permit condition;

**2. REPRESENTATIONS & WARRANTIES.** Customer represents and warrants that: (a) the description of the waste set forth on the reverse hereof is true and correct in all material respects; (b) all waste delivered to the Designated Facility by Customer shall be Acceptable Waste as defined above and shall not be or contain Nonconforming Waste; (c) Customer shall, and shall cause any contractor with which it contracts to, handle and transport the waste in a safe and appropriate manner in full conformance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations; and (d) Customer has advised its drivers of Company's prohibition on delivery of Nonconforming Waste, of the definition and listing of hazardous waste and hazardous substances under applicable federal and state law and regulations and of the definition of Acceptable Waste herein. Company represents and warrants that it shall manage the Acceptable Waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations.

**3. WASTE REJECTION.** Company may inspect, analyze or test any waste delivered by Customer and/or may reject, refuse or revoke acceptance of any waste if, to the opinion of Company, the waste or loader of delivery fails to conform to or Customer fails to comply with the terms of this Agreement, including by delivery of Nonconforming Waste. Company may also reject any waste which (a) Company reasonably believes would, as a result of or upon disposal or other management, be a violation of local, state or federal law, regulation, ordinance or permit, including and use restrictions or conditions applicable to the Designated Facility; or (b) in Company's opinion would present a significant risk to human health or the environment, cause a nuisance or otherwise create or expose Company or Customer to potential liability. Company also shall have the right to refuse to accept or to reject any Acceptable Waste in the event of Customer's failure to pay fees owed by Customer hereunder. In the event Company rejects or revokes acceptance of waste hereunder, Customer shall, at its sole cost, immediately remove or arrange to have the rejected waste removed from Company's control or property. Customer shall pay and/or reimburse Company for any and all costs, damages and/or losses incurred as a result of its failing to accept or to reject or delivery of Nonconforming Waste or other failure to comply or conform to this Agreement, including costs of inspection, testing and analysis.

**4. SPECIAL HANDLING TITLE.** If Company elects, in its sole discretion, to handle, rather than reject, Nonconforming Waste, Company shall have the right to manage such Nonconforming Waste in the manner deemed most appropriate by Company given the characteristics of the Nonconforming Waste. Company may remove and Customer shall pay additional fees associated with delivery of Nonconforming Waste, including, but not limited to, special handling or disposal charges, and costs associated with different quantities of waste, different delivery dates, modifications in operations, specialized equipment, and other operational, environmental, health, safety or regulatory requirements. Title to and ownership of Acceptable Waste shall transfer to Company upon its final acceptance of Acceptable Waste. Title to, ownership of and liability for Nonconforming Waste shall at all times remain with Customer. Revocation of acceptance by Company shall operate to re-vest all interests of ownership in Customer.

**5. INDEMNITY.** Each party hereto (the "Indemnitor") hereby agrees to indemnify, hold harmless and defend the other party, and its directors, officers, employees and agents (collectively, the "Indemnitee"), from and against any and all liabilities, penalties, fines, forfeitures, loss, demands, claims, causes of action, suits, judgments and both and expenses, including attorney's fees (collectively, "Damages"), which any or all of the Indemnitees may hereafter suffer, incur, be responsible for or pay-out, including for personal injuries, property damage, or contamination or adverse effects on the environment; to the extent caused by, or arising from or in connection with the breach of any representations or warranties of the Indemnitor set forth in this Agreement, or any negligent actions or omissions or willful misconduct of the Indemnitor, its employees, officers, directors or agents, or the violation of any law, ordinance or regulation, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, of U.S.C. § 9601 et seq., as amended. Such indemnity shall exclude Damages to the extent they arise as a result of any negligent actions or omissions or willful misconduct of the Indemnitee or their employees, officers, directors or agents. The indemnification obligation hereunder shall arise only in cases of any available and collectible insurance proceeds and the Indemnitor shall be liable hereunder to pay only its share of the amount of Damages, if any, that exceeds the total amount that all insurance has paid for the Damages, plus the total of all deductibles and self-insured expenses paid under all insurance policies. The obligation in this Section 5 shall survive the performance and termination of this Agreement.

**6. UNCONTROLLABLE CIRCUMSTANCES; TERMINATION.** Except for the obligation to pay fees hereunder, the performance of this Agreement may be discontinued or temporarily suspended by either party, and neither party shall be deemed to be in breach of this Agreement, in the event performance is prevented by a cause or causes beyond the reasonable control of the affected party. Such causes shall include, but not be limited to, acts of God, acts of war, riot, fire, explosion, accident, flood or sabotage, governmental laws (including ordinance), permit conditions, regulations, restrictions (including laws), condition of the waste, injunction or actions or omissions of third party transporters or other contractors, suppliers or vendors. Company may immediately terminate management services hereunder upon written notice to Customer in the event Customer breaches any term, provision or obligation under this Agreement, in which case, Customer shall be liable for and shall pay to Company all costs and losses incurred by Company as a result of or relating to any such termination.

**7. MISCELLANEOUS.** This Agreement shall be governed by the laws of the state in which the Designated Facility is located. Every provision of this Agreement shall be severable. This Agreement represents the entire understanding and Agreement between the parties relating to the management of waste, except that, if the parties, or their parent companies, are parties to a national service agreement, the terms of such national service agreement shall prevail over any inconsistent terms in this Agreement. No representations, statements or Agreements, unless agreed to by the parties in writing, shall modify, change, amend or otherwise affect the obligations undertaken in this Agreement. No waiver by either party of any one or more defaults or breaches by the other in the performance of this Agreement shall operate or be construed as a waiver of any future defaults or breaches. Customer may not assign its Agreement without the prior written consent of Company. This Agreement shall be binding upon and shall inure to the benefit of the parties' successors and assigns.

**THIS IS A LEGALLY BINDING CONTRACT. EACH UNDERSIGNED INDIVIDUAL ACKNOWLEDGES THAT HE/SHE HAS READ AND UNDERSTANDS THE TERMS AND CONDITIONS OF THIS AGREEMENT SET FORTH ABOVE AND ON THE REVERSE HEREOF AND ON THE REVERSE HEREOF AND THAT HE/SHE HAS THE AUTHORITY TO SIGN ON BEHALF OF CUSTOMER/GENERATOR AND COMPANY, BY SIGNING BELOW, CUSTOMER AND GENERATOR INDICATE A FIRST HAND KNOWLEDGE OF THE WASTE'S CHARACTERISTICS AND CERTIFY THE TRUTH OF THE INFORMATION ON THE REVERSE HEREOF. AGREED TO AS OF THE DATES BELOW.**

**CUSTOMER:**  
 \_\_\_\_\_  
 AUTHORIZED SIGNATURE  
 Dennis McElroy, Dept. Mgr.  
 NAME, TITLE

**GENERATOR:**  
 \_\_\_\_\_  
 AUTHORIZED SIGNATURE  
 Mark E. Gering, Geologist  
 NAME, TITLE

**COMPANY: ALTAMONT LANDFILL**  
 \_\_\_\_\_  
 AUTHORIZED SIGNATURE  
 NAME, TITLE



BROWN AND CALDWELL

CHAIN OF CUSTODY RECORD

COC No. 1-8-1  
BE 000 390

2701 Prospect Park Dr.  
Rancho Cordova, CA 95670  
916-444-0123 / FAX 916-635-8805

9665 Chesapeake Dr. / Suite 201  
San Diego, CA 92123  
858-514-8822 / FAX 858-514-8833

201 N. Civic Dr. / Suite 115  
Walnut Creek, CA 94596  
925-937-9010 / FAX 925-937-9026

400 Exchange / Suite 100  
Irvine, CA 92602  
714-730-7600 / FAX 714-734-0940

PROJECT NAME: Bonita Av 5000  
PROJECT NUMBER: 129336-012  
LABORATORY NAME & ADDRESS:  
Pmax  
1935 W. 205th Street Torrance, CA 90501

LINE NO.	SAMPLE - I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	FIELD FILTERED	QC - REQ	TAT	SAMPLING METHOD	DEPTH (FT.) BEGIN - END	NO. READINGS (ppm)
	Bin B91	1/19/06	13:15	g2	1	26 SS Sleeve	N/A	S	Metals (Cd, Cr, Pb, Hg, Zn) 6000 PCBS (8000)			std	6	---	
	Bin B91	1/19/06	13:15	g2	3	Chrome	N/A	S	VOLs by gLDS			std	6	---	
03															
04															
05															
06															
07															
08															
09															
10															

COLLECTED & RELEASED BY: [Signature]  
RECEIVED BY: [Signature]  
DATE: 1/19/06 TIME: 18:00  
DATE: 1/19/06 TIME: 9:45  
COOLER I.D.:  
RELINQUISHED BY:  
DATE: / / TIME:  
SHIPPING NUMBER: 8329 9904 4151  
RECORD RETURNED BY:  
DATE: / / TIME:  
COPIES: FILE

COMMENTS (see note on back):  
7.30K

BROWN AND CALDWELL

CHAIN OF CUSTODY RECORD

COC No. 1.1.1

2701 Prospect Park Dr.  
 Rancho Cordova, CA 95670  
 916-444-0123 / FAX 916-635-8805

9665 Chesapeake Dr. / Suite 201  
 San Diego, CA 92123  
 858-514-8822 / FAX 858-514-8833

201 N. Civic Dr. / Suite 115  
 Walnut Creek, CA 94596  
 925-937-9010 / FAX 925-937-9026

400 Exchange / Suite 100  
 Irvine, CA 92602  
 714-730-7600 / FAX 714-734-0940

PROJECT NAME: Benicio Arsenid  
 PROJECT NUMBER: 123336-012

LABORATORY NAME & ADDRESS:  
Ernst  
1335 W. 205th Street, Torrance CA 90501

LINE NO.	SAMPLE - I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLE INITIALS	NO. OF CONTAINERS	CONTAINER TYPE AND SIZE	PREP VIALS	MATRIX CODE	ANALYSES REQUESTED	FIELD FLUOR	QC - REQ	TAT	SAMPLING METHOD	DEPTH (FT.) BEGIN	DEPTH (FT.) END
01	Bin CT3	1/9/06	13:05	QL	1	2x655 sleeve	Nuc	S	Metals (Cd, Cr, Pb, Ni, Cu) 6010 PCBS (Sewer) #10			std	G	---	---
02	Bin CT3	1/9/06	13:05	QT	3	Encum	Nuc	S	Vocs by B260s day 8			std	G	---	---
03														---	---
04														---	---
05														---	---
06														---	---
07														---	---
08														---	---
09														---	---
10														---	---

COLLECTED & RELEASED BY: [Signature] DATE: 1/9/06 TIME: 18:30 COOLER I.D.:  
 RECEIVED BY: [Signature] DATE: 1/10/06 TIME: 9:45 RELINQUISHED BY:  
 COMMENTS (see note on back):  
7-362  
 SHIPPING NUMBER: 8319 9904 4154  
 RECORD RETURNED BY: DATE: / / TIME:  
 COPIES: 6) Ex

DISTRIBUTION: WHITE-PROJECT FILE • CANARY-LAB RECEIPT • PINK-DATA MANAGEMENT • GOLDENROD-FIELD  
 USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

**BROWN AND CALDWELL**

**CHAIN OF CUSTODY RECORD**

COC No. 1

BE 000347

2701 Prospect Park Dr.  
Rancho Cordova, CA 95670  
916-444-0123 / FAX 916-635-8805

9665 Chesapeake Dr. / Suite 201  
San Diego, CA 92123  
858-514-8822 / FAX 858-514-8833

201 N. Civic Dr. / Suite 115  
Walnut Creek, CA 94596  
925-937-9010 / FAX 925-937-9026

400 Exchange / Suite 100  
Irvine, CA 92602  
714-730-7600 / FAX 714-734-0940

PROJECT NAME: Berkeley Arsenal  
PROJECT NUMBER: 129336-012

LABORATORY NAME & ADDRESS:  
Ernst  
1935 W. 205th St. Torrance CA 90501

LINE NO.	SAMPLE - I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVE VATTRE	MATRIX CODE	ANALYSES REQUESTED	FIELD NUMBER	TAT	SAMPLING METHOD	DEPTH (FT.) BEGIN END
2	Bin S232	1/19/06	12:45	GV	1	2x6 SS slume	Nur	S	Metals (Cd, Cr, Pb, Ni, Zn) total PCBs VOCs by 92603 Manganese Dioxin		SHL	G	
X	Bin S232	1/19/06	12:45	GV	3	Evidence	Nur	S	VOCs by 92603		SHL	G	
03													
04													
05													
06													
07													
08													
09													
10													

COLLECTED & REPRASER BY: [Signature] DATE: 1/19/06 TIME: 12:45

RECEIVED BY: [Signature] DATE: 01/19/06 TIME: 9:45

COOLER I.D.: \_\_\_\_\_

RELINQUISHED BY: \_\_\_\_\_

DATE: / / TIME: :

RECEIVED RETURNED BY: \_\_\_\_\_

DATE: / / TIME: :

COLLECTOR: [Signature]

SHIPPING NUMBER: 9329 9904 4154

COMMENTS (see note on back):

7-3.6°C

SW5035/B2608  
VOLATILE ORGANICS BY GC/MS

```

Client : BROWN & CALDWELL      Date Collected: 01/09/06
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06
Batch No. : 06A038             Date Extracted: 01/13/06 15:20
Sample ID: BIN 5232           Date Analyzed: 01/13/06 15:20
Lab Samp ID: A038-02R        Dilution Factor: 83
Lab File ID: RAC249          Matrix: SOIL
Ext Btch ID: V067A20        % Moisture: 20.7
Calib. Ref.: RAC161         Instrument ID: T-067
  
```

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	10	2.1
1,1,1-TRICHLOROETHANE	ND	10	2.1
1,1,2,2-TETRACHLOROETHANE	ND	10	2.1
1,1,2-TRICHLOROETHANE	ND	10	2.1
1,1-DICHLOROETHANE	ND	10	2.1
1,1-DICHLOROETHENE	ND	10	2.1
1,1-DICHLOROPROPENE	ND	21	2.1
1,2,3-TRICHLOROBENZENE	ND	10	2.1
1,2,3-TRICHLOROPROPANE	ND	10	2.1
1,2,4-TRICHLOROBENZENE	ND	10	2.1
1,2,4-TRIMETHYLBENZENE	ND	10	2.1
1,2-DIBROMO-3-CHLOROPROPANE	ND	21	2.1
1,2-DIBROMOETHANE	ND	10	2.1
1,2-DICHLOROBENZENE	ND	10	2.1
1,2-DICHLOROETHANE	ND	10	2.1
1,2-DICHLOROPROPANE	ND	10	2.1
1,3,5-TRIMETHYLBENZENE	ND	10	2.1
1,3-DICHLOROBENZENE	ND	10	2.1
1,3-DICHLOROPROPANE	ND	10	2.1
1,4-DICHLOROBENZENE	ND	10	2.1
2,2-DICHLOROPROPANE	ND	10	2.1
2-BUTANONE	ND	100	2.1
2-CHLOROTOLUENE	ND	10	2.1
2-HEXANONE	ND	21	2.1
4-CHLOROTOLUENE	ND	10	2.1
4-METHYL-2-PENTANONE	ND	21	2.1
ACETONE	15J	21	2.1
BENZENE	ND	10	2.1
BROMOBENZENE	ND	10	2.1
BROMOCHLOROMETHANE	ND	10	2.1
BROMODICHLOROMETHANE	ND	10	2.1
BROMOFORM	ND	10	2.1
BROMOMETHANE	ND	21	2.1
CARBON DISULFIDE	ND	10	2.1
CARBON TETRACHLORIDE	ND	10	2.1
CHLOROBENZENE	ND	10	2.1
DIBROMOCHLOROMETHANE	ND	10	2.1
CHLOROETHANE	ND	21	2.1
CHLOROFORM	ND	10	2.1
CHLOROMETHANE	ND	21	2.1
CIS-1,2-DICHLOROETHENE	ND	10	2.1
CIS-1,3-DICHLOROPROPENE	ND	10	2.1
DIBROMOMETHANE	ND	10	2.1
DICHLORODIFLUOROMETHANE	ND	10	2.1
DIPE	ND	21	2.1
ETBE	ND	21	2.1
ETHYLBENZENE	ND	10	2.1
HEXACHLOROBUTADIENE	ND	10	2.1
IODOMETHANE	ND	10	2.1
ISOPROPYLBENZENE	ND	10	2.1
METHYLENE CHLORIDE	ND	21	2.1
MTBE	ND	10	2.1
M/P-XYLENES	ND	10	2.1
NAPHTHALENE	ND	21	2.1
N-BUTYLBENZENE	5.1J	10	2.1
O-XYLENE	ND	10	2.1
P-ISOPROPYLTOLUENE	ND	10	2.1
SEC-BUTYLBENZENE	ND	10	2.1
STYRENE	ND	10	2.1
TAME	ND	52	2.1
TERT-BUTYLBENZENE	ND	10	2.1
TETRACHLOROETHENE	ND	10	2.1
TOLUENE	ND	10	2.1
TRANS-1,2-DICHLOROETHENE	ND	10	2.1
TRANS-1,3-DICHLOROPROPENE	ND	10	2.1
TRICHLOROETHENE	2.6J	10	2.1
TRICHLOROFLUOROMETHANE	ND	10	2.1
VINYL ACETATE	ND	52	2.1
VINYL CHLORIDE	ND	10	2.1
FREON113	ND	42	2.1
N-PROPYLBENZENE	ND	10	2.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	111	70-130
TOLUENE-D8	98	70-130
BROMOFLUOROBENZENE	105	70-130

PQL: Practical Quantitation Limit  
Preservation Date: 01/10/06 16:00

SW5035/82608  
 VOLATILE ORGANICS BY GC/MS

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=====
Client      : BROWN & CALDWELL           Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL     Date Received: 01/10/06
Batch No.   : 06A058                     Date Extracted: 01/13/06 15:20
Sample ID   : BII S232                    Date Analyzed: 01/13/06 15:20
Lab Samp ID: A038-02R                     Dilution Factor: .85
Lab File ID: RAC749                       Matrix: SOIL
Ext Btch ID: V067A20                      % Moisture: 20.7
Calib. Ref.: RAC161                      Instrument ID : T-067
=====
  
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Number of TIC : 3
PARAMETERS
-----
RESULTS      RTTIME      Q
(ug/kg)      min      Value
-----
NAPHTHALENE, DECAHYDRO-, TRANS-      56.1      21.91      98
TRANS-DECALIN, 2-METHYL-              39.1      23.72      92
1-METHYLDECAHYDROWAPHTHALENE         42.1      24.11      98
  
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SW5035/8260B  
VOLATILE ORGANICS BY GC/MS

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=====
Client   : BROWN & CALDWELL           Date Collected: 01/09/06
Project  : FORMER BENICIA ARSENAL      Date Received: 01/10/06
Batch No.: 05A038                      Date Extracted: 01/13/06 16:30
Sample ID: BIN CT3                      Date Analyzed: 01/13/06 16:30
Lab Samp ID: A038-04R                   Dilution Factor: 88
Lab File ID: RAC251                     Matrix: SOIL
Ext Stch ID: V057A20                    % Moisture: 17.8
Calib. Ref.: RAC161                     Instrument ID: T-067
=====
  
```

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	11	2.1
1,1,1-TRICHLOROETHANE	ND	11	2.1
1,1,2,2-TETRACHLOROETHANE	ND	11	2.1
1,1,2-TRICHLOROETHANE	ND	11	2.1
1,1-DICHLOROETHANE	ND	11	2.1
1,2-DICHLOROETHANE	ND	11	2.1
1-DICHLOROPROPENE	ND	21	2.1
1,2,3-TRICHLOROBENZENE	ND	11	2.1
1,2,3-TRICHLOROPROPANE	ND	11	2.1
1,2,4-TRICHLOROBENZENE	ND	11	2.1
1,2,4-TRIMETHYLBENZENE	100	11	2.1
1,2-DIBROMO-3-CHLOROPROPANE	ND	21	2.1
1,2-DIBROMOETHANE	ND	11	2.1
1,2-DICHLOROBENZENE	ND	11	2.1
1,2-DICHLOROETHANE	ND	11	2.1
1,2-DICHLOROPROPANE	ND	11	2.1
1,3,5-TRIMETHYLBENZENE	ND	11	2.1
1,3-DICHLOROBENZENE	ND	11	2.1
1,3-DICHLOROPROPANE	ND	11	2.1
1,4-DICHLOROBENZENE	ND	11	2.1
2,2-DICHLOROPROPANE	ND	11	2.1
2-BUTANONE	ND	110	2.1
2-CHLOROTOLUENE	ND	11	2.1
2-HEXANONE	ND	21	2.1
4-CHLOROTOLUENE	ND	11	2.1
4-METHYL-2-PENTANONE	ND	21	2.1
ACETONE	ND	21	2.1
BENZENE	ND	21	2.1
BROMOBENZENE	ND	11	2.1
BROMOCHLOROMETHANE	ND	11	2.1
BROMODICHLOROMETHANE	ND	11	2.1
BROMOFORM	ND	11	2.1
BROMOMETHANE	ND	21	2.1
CARBON DISULFIDE	2.24	11	2.1
CARBON TETRACHLORIDE	ND	11	2.1
CHLOROBENZENE	ND	11	2.1
OIBROMOCHLOROMETHANE	ND	11	2.1
CHLOROETHANE	ND	21	2.1
CHLOROFORM	ND	11	2.1
CHLOROMETHANE	ND	21	2.1
CIS-1,2-DICHLOROETHENE	ND	11	2.1
CIS-1,3-DICHLOROPROPENE	ND	11	2.1
DIBROMOMETHANE	ND	11	2.1
DICHLORODIFLUOROMETHANE	ND	52	2.1
DIBP	ND	52	2.1
DTBE	ND	52	2.1
ETHYLBENZENE	4.44	11	2.1
HEXACHLOROCYCLOHEPTADIENE	ND	11	2.1
IODOMETHANE	ND	11	2.1
ISOPROPYLBENZENE	ND	11	2.1
METHYLENE CHLORIDE	ND	21	2.1
MTBE	ND	11	2.1
M/P-XYLENES	ND	21	2.1
NAPHTHALENE	ND	52	2.1
N-BUTYLBENZENE	ND	11	2.1
O-XYLENE	ND	11	2.1
P-ISOPROPYLTOLUENE	ND	11	2.1
SEC-BUTYLBENZENE	ND	11	2.1
STYRENE	ND	11	2.1
TAME	ND	52	2.1
TERT-BUTYLBENZENE	ND	11	2.1
TETRACHLOROETHENE	ND	11	2.1
TOLUENE	2.44	11	2.1
TRANS-1,2-DICHLOROETHENE	ND	11	2.1
TRANS-1,3-DICHLOROPROPENE	ND	11	2.1
TRICHLOROETHENE	ND	11	2.1
TRICHLOROFLUOROMETHANE	ND	11	2.1
VINYL ACETATE	ND	52	2.1
VINYL CHLORIDE	ND	11	2.1
FREON113	ND	43	2.1
N-PROPYLBENZENE	100	11	2.1
SURROGATE PARAMETERS			
1,2-DICHLOROETHANE-D4	% RECOVERY	QC LIMIT	
TOLUENE-DB	107	70-130	
BROMOFLUOROBENZENE	105	70-130	
	320*	70-130	

PQL: Practical Quantitation Limit  
Preservation Date: 01/10/06 16:00

SW5035/82608  
VOLATILE ORGANICS BY GC/MS

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=====
Client      : BROWN & CALDWELL           Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL     Date Received: 01/10/06
Batch No.   : 06A038                     Date Extracted: 01/13/06 16:30
Sample ID   : BIN CT3                   Date Analyzed: 01/13/06 16:30
Lab Samp ID: A038-04R                   Dilution Factor: .88
Lab File ID: RAC251                     Matrix: SOIL
Ext Btch ID: VC67A20                    % Moisture: 17.8
Calib. Ref.: RAC161                     Instrument ID: T-067
=====

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Number of TIC : 7
PARAMETERS
=====
RESULTS      RTTIME      Q
(ug/kg)      min      Value
=====
CYCLOPENTANE, METHYL-      58J      8.18      91
CYCLOHEXANE                 68J      9.16      90
CYCLOHEXANE, METHYL-      160J     10.62     96
CYCLOHEXANE, 1,3-DIMETHYL- CIS-      82J     12.05     94
CYCLOHEXANE, 1,1,3-TRIMETHYL-      45J     13.82     97
OCTANE, 3,6-DIMETHYL-      56J     15.97     95
NAPHTHALENE, DECAHYDRO-, TRANS-      54J     21.92     98
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SW5035/8260B  
VOLATILE ORGANICS BY GC/MS

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=====
Client      : BROWN & CALDWELL      Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL Date Received: 01/10/06
Batch No.   : 06A038                Date Extracted: 01/13/06 17:06
Sample ID   : BIN 89                Date Analyzed: 01/13/06 17:06
Lab Smp ID  : A038-Q5R              Dilution Factor: .81
Lab File ID : RAC152                Matrix: SOIL
Ext Btch ID: V067A20               % Moisture: 15.7
Calib. Ref.: RAC161                Instrument ID: T-067
=====
  
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PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	0.6	1.0
1,1,1-TRICHLOROETHANE	ND	0.6	1.0
1,1,2,2-TETRACHLOROETHANE	ND	0.6	1.0
1,1,2-TRICHLOROETHANE	ND	0.6	1.0
1,1-DICHLOROETHANE	ND	0.6	1.0
1,1-DICHLOROETHENE	ND	0.6	1.0
1,1-DICHLOROPROPENE	ND	1.0	1.0
1,2,3-TRICHLOROBENZENE	ND	0.6	1.0
1,2,3-TRICHLOROPROPANE	ND	0.6	1.0
1,2,4-TRICHLOROBENZENE	ND	0.6	1.0
1,2,4-TRIMETHYLBENZENE	ND	0.6	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	1.0
1,2-DIBROMOETHANE	ND	0.6	1.0
1,2-DICHLOROBENZENE	ND	0.6	1.0
1,2-DICHLOROETHANE	ND	0.6	1.0
1,2-DICHLOROPROPANE	ND	0.6	1.0
1,3,5-TRIMETHYLBENZENE	ND	0.6	1.0
1,3-DICHLOROBENZENE	ND	0.6	1.0
1,3-DICHLOROPROPANE	ND	0.6	1.0
1,4-DICHLOROBENZENE	ND	0.6	1.0
2,2-DICHLOROPROPANE	ND	0.6	1.0
2-BUTANONE	ND	0.6	1.0
2-CHLOROTOLUENE	ND	0.6	1.0
2-HEXANONE	ND	1.0	1.0
4-CHLOROTOLUENE	ND	0.6	1.0
4-METHYL-2-PENTANONE	ND	1.0	1.0
ACETONE	ND	1.0	1.0
BENZENE	ND	0.6	1.0
BROMOBENZENE	ND	0.6	1.0
BROMOCHLOROMETHANE	ND	0.6	1.0
BROMODICHLOROMETHANE	ND	0.6	1.0
BROMOFORM	ND	0.6	1.0
BROMOMETHANE	ND	1.0	1.0
CARBON DISULFIDE	ND	0.6	1.0
CARBON TETRACHLORIDE	ND	0.6	1.0
CHLOROBENZENE	ND	0.6	1.0
DIBROMOCHLOROMETHANE	ND	1.0	1.0
CHLOROETHANE	ND	0.6	1.0
CHLOROFORM	ND	0.6	1.0
CHLOROMETHANE	ND	1.0	1.0
CIS-1,2-DICHLOROETHENE	ND	0.6	1.0
CIS-1,3-DICHLOROPROPENE	ND	0.6	1.0
DIBROMOMETHANE	ND	0.6	1.0
DICHLORODIFLUOROMETHANE	ND	0.6	1.0
DIPE	ND	4.0	1.0
ETBE	ND	0.6	1.0
ETHYLBENZENE	ND	0.6	1.0
HEXACHLOROBUTADIENE	ND	0.6	1.0
IODOMETHANE	ND	0.6	1.0
ISOPROPYLBENZENE	ND	0.6	1.0
METHYLENE CHLORIDE	ND	1.0	1.0
MTBE	ND	0.6	1.0
M/P-XYLENES	ND	1.0	1.0
NAPHTHALENE	4.0	1.0	1.0
N-BUTYLBENZENE	5.0	0.6	1.0
O-XYLENE	ND	0.6	1.0
P-ISOPROPYLTOLUENE	3.0	0.6	1.0
SEC-BUTYLBENZENE	ND	0.6	1.0
STYRENE	ND	0.6	1.0
TAME	ND	4.0	1.0
TERT-BUTYLBENZENE	ND	0.6	1.0
TETRACHLOROETHENE	ND	0.6	1.0
TOLUENE	ND	0.6	1.0
TRANS-1,2-DICHLOROETHENE	ND	0.6	1.0
TRANS-1,3-DICHLOROPROPENE	ND	0.6	1.0
TRICHLOROETHENE	ND	0.6	1.0
TRICHLOROFUOROMETHANE	ND	0.6	1.0
VINYL ACETATE	ND	4.0	1.0
VINYL CHLORIDE	ND	0.6	1.0
FREON113	ND	3.0	1.0
N-PROPYLBENZENE	ND	0.6	1.0
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SURROGATE PARAMETERS	% RECOVERY	QC LIMIT	
1,2-DICHLOROETHANE-D4	108	70-130	
TOLUENE-D8	101	70-130	
BROMOFLUOROBENZENE	103	70-130	

PQL: Practical Quantitation Limit  
Preservation Date: 01/10/06 16:00

SW5035/82608  
VOLATILE ORGANICS BY GC/MS

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Client      : BROWN & CALDWELL      Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL Date Received:   01/10/06
Batch No.   : 06A038                Date Extracted:  01/13/06 17:06
Sample ID   : B11 B9                Date Analyzed:   01/13/06 17:06
Lab Smp ID  : A038-05R              Dilution Factor: 81
Lab File ID : RAC252                Matrix           : SOIL
Ext Btch ID : V06A20                % Moisture       : 15.7
Calib. Ref. : RAC161                Instrument ID    : 1-067
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Number of TIC : 4

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
CYCLOHEXANE, BUTYL-	12.1	20.14	90
1-ETHYL-2,5,6-TRIMETHYLCYCLOHEXANE	12.1	20.88	90
NAPHTHALENE, DECAHYDRO- TRANS-	51.1	21.81	98
1-METHYLDECAHYDRONAPHTHALENE	27.1	24.11	98

SW5035/82608  
VOLATILE ORGANICS BY GC/MS

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=====
Client      : BROWN & CALDWELL           Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL    Date Received: 01/10/06
Batch No.   : 06A038                    Date Extracted: 01/13/06 17:41
Sample ID   : BIN 160                    Date Analyzed: 01/13/06 17:41
Lab Smp ID  : A038-06R                    Dilution Factor: 85
Lab File ID : RAC223                       Matrix: SOIL
Ext Btch ID : V067A20                       % Moisture: 21.3
Calib. Ref. : RAC161                       Instrument ID: 1-067
=====
  
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PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	11	2
1,1,2-TRICHLOROETHANE	ND	11	2
1,1,2,2-TETRACHLOROETHANE	ND	11	2
1,1,2-TRICHLOROETHANE	ND	11	2
1,1-DICHLOROETHANE	ND	11	2
1,2-DICHLOROETHANE	ND	11	2
1,2-DICHLOROPROPENE	ND	21	2
1,2,3-TRICHLOROBENZENE	ND	11	2
1,3,5-TRICHLOROPROPANE	ND	11	2
1,3,4-TRICHLOROBENZENE	ND	11	2
1,2,4-TRIMETHYLBENZENE	ND	11	2
1,2,4-TRIBROMO-3-CHLOROPROPANE	ND	11	2
1,2-DIBROMOETHANE	ND	11	2
1,3-DICHLOROBENZENE	ND	11	2
1,3-DICHLOROETHANE	ND	11	2
1,3-DICHLOROPROPANE	ND	11	2
1,4-5-TRIMETHYLBENZENE	2.5	11	2
1,4-DICHLOROBENZENE	ND	11	2
1,3-DICHLOROPROPANE	ND	11	2
1,4-DICHLOROBENZENE	ND	11	2
2,2-DICHLOROPROPANE	ND	11	2
2-BUTANONE	ND	110	2
2-CHLOROTOLUENE	ND	11	2
2-HEXANONE	ND	11	2
4-CHLOROTOLUENE	ND	11	2
4-METHYL-2-PENTANONE	ND	11	2
ACETONE	ND	26	2
BENZENE	ND	11	2
BROMOBENZENE	ND	11	2
BROMOCHLOROMETHANE	ND	11	2
BROMODICHLOROMETHANE	ND	11	2
BROMOFORM	ND	11	2
BROMOMETHANE	ND	11	2
CARBON DISULFIDE	ND	11	2
CARBON TETRACHLORIDE	ND	11	2
CHLOROBENZENE	ND	11	2
DIBROMOCHLOROMETHANE	ND	11	2
CHLOROETHANE	ND	11	2
CHLOROFORM	ND	11	2
CHLOROMETHANE	ND	11	2
CIS-1,2-DICHLOROETHENE	ND	11	2
CIS-1,3-DICHLOROPROPENE	ND	11	2
DIBROMOMETHANE	ND	11	2
DICHLORODIFLUOROMETHANE	ND	11	2
DIPE	ND	11	2
ETBE	ND	11	2
ETHYLBENZENE	ND	11	2
HEXACHLOROBUTADIENE	ND	11	2
IODOMETHANE	ND	11	2
ISOPROPYLBENZENE	4.4	11	2
METHYLENE CHLORIDE	ND	11	2
MTBE	ND	11	2
M/P-XYLENES	6.1	11	2
NAPHTHALENE	6.7	11	2
N-BUTYLBENZENE	13	11	2
O-XYLENE	ND	11	2
P-ISOPROPYLTOLUENE	4.8	11	2
SEC-BUTYLBENZENE	7.7	11	2
STYRENE	ND	11	2
TAME	ND	11	2
TERT-BUTYLBENZENE	ND	11	2
TETRACHLOROETHENE	ND	11	2
TOLUENE	ND	11	2
TRANS-1,2-DICHLOROETHENE	ND	11	2
TRANS-1,3-DICHLOROPROPENE	ND	11	2
TRICHLOROETHENE	ND	11	2
TRICHLOROFLUOROMETHANE	ND	11	2
VINYL ACETATE	ND	55	2
VINYL CHLORIDE	ND	11	2
WREON 113	ND	11	2
N-PROPYLBENZENE	9.5	11	2
SURROGATE PARAMETERS			
1,2-DICHLOROETHANE-D4	% RECOVERY	QC LIMIT	
TOLUENE-d8	111	70-130	
BROMOFLUOROBENZENE	101	70-130	
	121	70-130	

PQL: Practical Quantitation Limit  
Preservation Date: 01/10/06 16:00

SW5035/B2608  
VOLATILE ORGANICS BY GC/MS

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=====
Client      : BROWN & CALDWELL      Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL Date Received: 01/10/06
Batch No.   : 06A038                Date Extracted: 01/13/06 17:41
Sample ID:  BIN 160                 Date Analyzed: 01/13/06 17:41
Lab Samp ID: A038-06R               Dilution Factor: .85
Lab File ID: RAC253                 Matrix: SOIL
Ext Btch ID: V067A20                % Moisture: 21.3
Calib. Ref.: RAC161                 Instrument ID: T-067
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Number of TIC : 6

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
NAPHTHALENE, DECAHYDRO-, TRANS-	420J	21.01	98
CYCLOHEXANE, PENTYL-	360J	24.28	87
TRANS-DECALIN, 2-METHYL-	280J	24.28	86
NAPHTHALENE, DECAHYDRO-2-METHYL-	350J	27.12	98
UNDECANE, 2,6-DIMETHYL-	290J	27.34	95
DODECANE, 2,6,10-TRIMETHYL-	230J	28.75	91

SW35508/8082  
PCBs

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=====
Client      : BRDWN & CALDWELL           Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL     Date Received: 01/10/06
Batch No.   : 06A038                     Date Extracted: 01/11/06 13:30
Sample ID   : BIN S232                   Date Analyzed: 01/17/06 14:01
Lab Samp ID: A038-02                     Dilution Factor: 1
Lab File ID: SA17010A                    Matrix          : SOIL
Ext Btch ID: 60A010S                     % Moisture      : 20.7
Calib. Ref.: SA17002A                    Instrument ID   : GCT008
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```

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
PCB-1016	(ND)   ND	.25	.025   .025
PCB-1221	(ND)   ND	.25	.025   .025
PCB-1232	(ND)   ND	.25	.025   .025
PCB-1242	(ND)   ND	.25	.025   .025
PCB-1248	(ND)   ND	.25	.025   .025
PCB-1254	(ND)   ND	.25	.025   .025
PCB-1260	(ND)   ND	.25	.025   .025

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	88   (89)	40-140
DECACHLOROBIPHENYL	(91)   85	40-140

PQL: Practical Quantitation Limit  
 Left of | is related to first column ; Right of | related to second column  
 Final result indicated by ( )  
 \* Out side of QC Limit

SW35508/B082  
PCBs

```

=====
Client   : BROWN & CALDWELL           Date Collected: 01/09/06
Project  : FORMER BENICJA ARSEWAL     Date Received: 01/10/06
Batch No.: 06A038                     Date Extracted: 01/11/06 13:30
Sample ID: BIN CT3                    Date Analyzed: 01/17/06 14:51
Lab Samp ID: AQ38-04                  Dilution Factor: 1
Lab File ID: SA17012A                 Matrix          : SOIL
Ext Stch ID: 60A010S                  % Moisture      : 17.8
Calib. Ref.: SA17002A                 Instrument ID   : GCT008
=====

```

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
PCB-1016	(ND)   ND	.24	.024   .024
PCB-1221	(ND)   ND	.24	.024   .024
PCB-1232	(ND)   ND	.24	.024   .024
PCB-1242	(ND)   ND	.24	.024   .024
PCB-1248	(ND)   ND	.24	.024   .024
PCB-1254	(.33)   .33	.24	.024   .024
PCB-1260	(.11J)   .11J	.24	.024   .024

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	94   (105)	40-140
DECACHLOROBIPHENYL	(89)   88	40-140

PQL: Practical Quantitation Limit  
 Left of | is related to first column ; Right of | related to second column  
 Final result indicated by ( )  
 \* Out side of QC Limit

Calib. Ref. for PCB-1254: SA17003A

```

=====
Client      : BROWN & CALDWELL           Date Collected: 01/09/06
Project    : FORMER BENICIA ARSENAL      Date Received: 01/10/06
Batch No.  : 06A038                      Date Extracted: 01/11/06 13:30
Sample ID  : BIN B9DL                    Date Analyzed: 01/17/06 19:31
Lab Samp ID: A038-05T                    Dilution Factor: 2
Lab File ID: SA17023A                   Matrix          : SOIL
Ext Btch ID: 60A010S                     % Moisture     : 15.7
Calib. Ref.: SA17015A                    Instrument ID  : GCT008
=====
    
```

PARAMETERS	RESULTS	PQL	MDL
	(mg/kg)	(mg/kg)	(mg/kg)
PCB-1016	(ND) ND	.47	.047 .047
PCB-1221	(ND) ND	.47	.047 .047
PCB-1232	(ND) ND	.47	.047 .047
PCB-1242	(ND) ND	.47	.047 .047
PCB-1248	(ND) ND	.47	.047 .047
PCB-1254	(.66) .66	.47	.047 .047
PCB-1260	(.26J) .25J	.47	.047 .047

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	50 (51)	40-140
DECACHLOROBIPHENYL	(54) 53	40-140

PQL: Practical Quantitation Limit  
 Left of | is related to first column ; Right of | related to second column  
 Final result indicated by ( )  
 \* Out side of QC Limit

Calib. Ref. for PCB-1254: SA17016A

```

=====
Client      : BROWN & CALDWELL           Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL     Date Received: 01/10/06
Batch No.   : 06A03B                     Date Extracted: 01/11/06 13:30
Sample ID   : BIN 160DL                  Date Analyzed: 01/17/06 19:56
Lab Samp ID: A03B-06T                    Dilution Factor: 2
Lab File ID: SA17024A                    Matrix          : SOIL
Ext Btch ID: 60A010S                      % Moisture     : 21.3
Calib. Ref.: SA17015A                      Instrument ID  : GCT008
=====

```

PARAMETERS	RESULTS	PQL	MDL
	(mg/kg)	(mg/kg)	(mg/kg)
PCB-1016	(ND) ND	.51	.051 .051
PCB-1221	(ND) ND	.51	.051 .051
PCB-1232	(ND) ND	.51	.051 .051
PCB-1242	(ND) ND	.51	.051 .051
PCB-1248	(ND) ND	.51	.051 .051
PCB-1254	(.59) .58	.51	.051 .051
PCB-1260	.19J (.2J)	.51	.051 .051

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	46 (53)	40-140
DECACHLOROBIPHENYL	(46) 46	40-140

PQL: Practical Quantitation Limit

Left of | is related to first column ; Right of | related to second column

Final result indicated by ( )

\* Out side of QC Limit

Calib. Ref. for PCB-1254: SA17016A

SW30508/60108  
METALS BY ICP

=====  
Client : BROWN & CALDWELL Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06  
SDG NO. : D6A038 Date Extracted: 01/10/06 13:40  
Sample ID: BIN S232 Date Analyzed: 01/17/06 20:55  
Lab Samp ID: A038-02 Dilution Factor: 1  
Lab File ID: 107A014039 Matrix : SOIL  
Ext Btch ID: IPA017S % Moisture : 20.7  
Calib. Ref.: 107A014034 Instrument ID : EMAXT107  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Chromium	42.4	2.1	.631
Nickel	24.2	2.1	.578
Zinc	96.3	1.05	.315

SW30508/60108  
METALS BY TRACE ICP

```
=====
Client   : BROWN & CALDWELL           Date Collected: 01/09/06
Project  : FORMER BENICIA ARSENAL      Date Received: 01/10/06
SDG NO.  : 06A038                     Date Extracted: 01/10/06 13:40
Sample ID: BIN S232                   Date Analyzed: 01/17/06 20:49
Lab Samp ID: AO38-02                 Dilution Factor: 1
Lab File ID: I31A012039              Matrix       : SOIL
Ext Btch ID: JPA0176                 % Moisture   : 20.7
Calib. Ref.: I31A012034              Instrument ID : EMAKT131
=====
```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Cadmium	.19J	.526	.0387
Lead	19.7	1.05	.183

7007

4

SW30508/6010B  
METALS BY ICP

=====  
Client : BROWN & CALDWELL                    Date Collected: 01/09/06  
Project : FORMER BEMICIA ARSENAL              Date Received: 01/10/06  
SDG NO. : 06A038                                Date Extracted: 01/10/06 13:40  
Sample ID: BIN CT3                              Date Analyzed: 01/17/06 21:05  
Lab Samp ID: A038-04                            Dilution Factor: 1  
Lab File ID: I07A014041                        Matrix : SOIL  
Ext Btch ID: IPA0178                           % Moisture : 17.8  
Calib. Ref.: I07A014034                        Instrument ID : EMAXT107  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Chromium	48	2.03	.608
Nickel	35	2.03	.557
Zinc	88.8	1.01	.304

7010

SW30508/60108  
METALS BY TRACE ICP

=====  
Client : BROWN & CALDWELL Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06  
SDG NO. : 06A038 Date Extracted: 01/10/06 13:40  
Sample ID: BIN CT3 Date Analyzed: 01/17/06 21:02  
Lab Samp ID: A038-04 Dilution Factor: 1  
Lab File ID: 131A012041 Matrix : SOIL  
Ext Btch ID: IPA017S % Moisture : 17.8  
Calib. Ref.: 131A012034 Instrument ID : EMAXT131  
=====

PARAMETERS	RESULTS	RL	MDL
	(mg/kg)	(mg/kg)	(mg/kg)
Cadmium	.29J	.507	.0373
Lead	19.2	1.01	.176

SW30508/60108  
METALS BY ICP

=====  
Client : BROWN & CALDWELL Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06  
SDG NO. : 06A038 Date Extracted: 01/10/06 13:40  
Sample ID: BIN 89 Date Analyzed: 01/17/06 21:10  
Lab Smp ID: A038-05 Dilution Factor: 1  
Lab File ID: 107A014042 Matrix : SOIL  
Ext Btch ID: IPA017S % Moisture : 15.7  
Calib. Ref.: 107A014034 Instrument ID : EMAX107  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Chromium	46.3	1.98	.593
Nickel	46.5	1.98	.543
Zinc	119	.988	.297

7012

6

SW30508/60108  
METALS BY TRACE ICP

=====  
Client : BROWN & CALDWELL                   Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL            Date Received: 01/10/06  
SDG NO. : 06A038                            Date Extracted: 01/10/06 13:40  
Sample ID: BIN B9                            Date Analyzed: 01/17/06 21:08  
Lab Samp ID: A038-05                        Dilution Factor: 1  
Lab File ID: 131A012042                    Matrix : SOIL  
Ext Btch ID: 1PA017S                        % Moisture : 15.7  
Calib. Ref.: 131A012034                    Instrument ID : EMAXT131  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Cadmium	.44	.495	.0364
Lead	29	.988	.172

SW3050B/6010B  
METALS BY ICP

=====  
Client : BROWN & CALDWELL Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06  
SDG NO. : 06A038 Date Extracted: 01/10/06 13:40  
Sample ID: BIN 160 Date Analyzed: 01/17/06 21:14  
Lab Samp ID: A038-06 Dilution Factor: 1  
Lab File ID: 107A014043 Matrix : SDIL  
Ext Btch ID: IPA0179 % Moisture : 21.3  
Calib. Ref.: 107A014034 Instrument ID : EMAXT107  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Chromium	47.8	2.12	.635
Nickel	36.6	2.12	.582
Zinc	110	1.06	.318

7014

SW30508/60108  
METALS BY TRACE ICP

=====  
Client : BROWN & CALDWELL      Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL      Date Received: 01/10/06  
SDG NO. : 06A038      Date Extracted: 01/10/06 13:40  
Sample ID: BIN 160      Date Analyzed: 01/17/06 21:14  
Lab Samp ID: A038-06      Dilution Factor: 1  
Lab File ID: I31A012043      Matrix : SOIL  
Ext Btch ID: IPA017S      % Moisture : 21.3  
Calib. Ref.: I31A012034      Instrument ID : EMAXT131  
=====

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Cadmium	.365J	.53	.039
Lead	23.4	1.06	.184

7015

METHOD 5W3550B/3630C/8015B  
DIESEL RANGE ORGANICS

940 Tyler Site  
Bin 1 of 5

-----  
Client : BROWN & CALDWELL Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06  
Batch No. : 06A038A Date Extracted: 02/03/06 10:45  
Sample ID: BIN S232 Date Analysed: 02/03/06 13:46  
Lab Samp ID: A038-02 Dilution Factor: 1  
Lab File ID: TB02038A Matrix : SOIL  
Ext Btch ID: DSB008S % Moisture : 20.7  
Calib. Ref.: TB02035A Instrument ID : GCT050  
-----

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DIESEL RANGE ORGANICS	190	10	3
RESIDUAL RANGE ORGANICS	49	21	2.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	94	50-150
HEXACOSANE	114	50-150

PQL: Practical Quantitation Limit  
Parameter H-C Range  
Diesel C10-C24  
Motor Oil C20-C34

METHOD SW3550B/3630C/8015B  
DIESEL RANGE ORGANICS

940 Tyler Site  
Bin 2 of 5

-----  
Client : BROWN & CALDWELL Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06  
Batch No. : 06A038A Date Extracted: 02/03/06 10:45  
Sample ID: BIN CT3 Date Analyzed: 02/03/06 16:34  
Lab Samp ID: A038-04T Dilution Factor: 5  
Lab File ID: TB02042A Matrix : SOIL  
Ext Btch ID: DSB0088 % Moisture : 17.8  
Calib. Ref.: TB02035A Instrument ID : GCT050  
-----

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DIESEL RANGE ORGANICS	3700	50	14
RESIDUAL RANGE ORGANICS	920	100	14

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	143	50-150
HEXACOBANE	216*	50-150

PQL: Practical Quantitation Limit  
Parameter H-C Range  
Diesel C10-C24  
Motor Oil C20-C34

\* : Out of QC limit due to matrix interference

METHOD SW3550B/3630C/8015B  
DIESEL RANGE ORGANICS

940 Tyler St  
Bin 3 of 5

-----  
Client : BROWN & CALDWELL Date Collected: 01/09/06  
Project : FORMER BENICIA ARSENAL Date Received: 01/10/06  
Batch No. : 06A038A Date Extracted: 02/03/06 10:45  
Sample ID: BIN B9 Date Analyzed: 02/03/06 15:52  
Lab Samp ID: A038-05T Dilution Factor: 2  
Lab File ID: TB02041A Matrix : SOIL  
Ext Btch ID: DSB0088 % Moisture : 15.7  
Calib. Ref.: TB02035A Instrument ID : GCT050  
-----

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DIESEL RANGE ORGANICS	450	20	5.6
RESIDUAL RANGE ORGANICS	470	40	5.4
SURROGATE PARAMETERS	% RECOVERY	QC LIMIT	
BROMOBENZENE	90	50-150	
HEXACOSANE	164*	50-150	

PQL: Practical Quantitation Limit  
Parameter H-C Range  
Diesel C10-C24  
Motor Oil C20-C34

\* : Out of QC limit due to matrix interference

METHOD SW3550B/3630C/8015B  
DIESEL RANGE ORGANICS

940 Tyler St  
Bin 4 of 5

```

-----
Client      : BROWN & CALDWELL           Date Collected: 01/09/06
Project     : FORMER BENICIA ARSENAL     Date Received: 01/10/06
Batch No.   : 06A038A                   Date Extracted: 02/03/06 10:45
Sample ID   : BIN 160                   Date Analyzed: 02/03/06 17:16
Lab Samp ID: A038-06T                   Dilution Factor: 5
Lab File ID: TB02043A                   Matrix          : SOIL
Ext Btch ID: D9B008S                     % Moisture      : 21.3
Calib. Ref.: TB02035A                     Instrument ID   : GCT050
-----
  
```

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DIESEL RANGE ORGANICS	1200	53	15
RESIDUAL RANGE ORGANICS	940	110	14

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	103	50-150
HEXACOSANE	164*	50-150

PQL: Practical Quantitation Limit  
 Parameter H-C Range  
 Diesel C10-C24  
 Motor Oil C20-C34

\* : Out of QC limit due to matrix interference

METHOD SW1550B/3630C/8015B  
DIESEL RANGE ORGANICS

940 Tyler St.  
Bin 5 of 5

```

=====
Client       : BROWN & CALDWELL           Date Collected: NA
Project      : FORMER BENICIA ARSENAL     Date Received: 02/03/06
Batch No.    : 06A038A                   Date Extracted: 02/03/06 10:45
Sample ID    : MBLK18                     Date Analyzed: 02/03/06 13:04
Lab Samp ID  : DSB008SB                   Dilution Factor: 1
Lab File ID  : TB02037A                   Matrix          : SOIL
Ext Btch ID  : DSB0088                     % Moisture      : NA
Calib. Ref.  : TB02035A                     Instrument ID   : GCT050
=====
  
```

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DIESEL RANGE ORGANICS	ND	8.3	2.4
RESIDUAL RANGE ORGANICS	ND	17	2.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	88	50-150
HEXACOSANE	102	50-150

PQL: Practical Quantitation Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C20-C34

**WATER**  
**(Building 27 Drums and Decontamination Water)**

23876776  
 IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR  
 FACILITY

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>C A C 0 0 2 5 9 8 5 9 0 5 8 8 8 5</b>		Manifest Document No. <b>5 8 8 8 5</b>		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address <b>Site: US ARMY CORPS OF ENGINEERS 1063 JEFFERSON STREET HENICIA CA 94510</b>				4. Generator's Phone <b>PHILIP TRANSPORTATION &amp; REMEDIATION, INC.</b>				5. Mailing Address <b>US ARMY CORPS OF ENGINEERS 1325 J STREET SACRAMENTO CA 95814</b>		6. State Manifest Document Number <b>23876776</b>			
7. Transporter 2 Company Name				8. US EPA ID Number <b>C A D 0 6 3 5 4 7 9 9 6</b>				9. State Generator's ID		10. State Transporter's ID (Reserved)			
9. Designated Facility Name and Site Address <b>HURLINGTON ENVIRONMENTAL, INC. KENT 20245 77TH AVENUE SOUTH KENT, WA 98032</b>				10. US EPA ID Number <b>W A D 9 9 1 2 8 1 7 6 7</b>				11. State Facility ID		12. Facility's Phone <b>(253) 872-8070</b>			
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit			
						No. Type		Quantity		Wt/Val			
a. <b>NON RCRA HAZARDOUS WASTE LIQUID</b>						004 D H		00220		G			
b.													
c.													
d.													
15. Special Handling Instructions and Additional Information <b>Emergency CALL 1-800-557-7550</b>						16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name <b>Martin Fahning</b>				Signature <i>Martin Fahning</i>				Month <b>02</b>		Day <b>22</b>		Year <b>2004</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>Afonso G Murillo</b>				Signature <i>Afonso G Murillo</i>				Month <b>02</b>		Day <b>22</b>		Year <b>2004</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature				Month		Day		Year	
19. Discrepancy Indication Space													
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name				Signature				Month		Day		Year	

DO NOT WRITE BELOW THIS LINE.

**APPENDIX G**

**Tank Manifests and Tank Destruction Certificates**

State of California—Environmental Protection Agency  
Form Approved OMB No. 2050-0039 (Expires 7-30-99)  
Please print or type. Form designed for use on office (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control  
Sacramento, California

GENERATOR  
WITHIN CALIFORNIA, CALL 1-800-852-7550  
OUTSIDE CALIFORNIA, CALL 1-800-424-8802

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>CA1C10021591059109210</b>	Manifest Document No. <b>117</b>	2. Page 1 <b>1 of 1</b>	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address <b>U.S. Army Corp of Engineers 1325 J St Sacramento, Ca. 95814</b>		A. State Manifest Document Number <b>24792017</b>		B. State Generator's ID	
4. Generator's Phone <b>(916) 557-6700</b>		C. State Transporter's ID (Reserved)		D. Transporter's Phone <b>916 295-1393</b>	
5. Transporter 1 Company Name <b>Ecology Control Industries</b>		6. US EPA ID Number <b>CAD982030173</b>		E. State Transporter's ID (Reserved)	
7. Transporter 2 Company Name		8. US EPA ID Number		F. State Transporter's ID (Reserved)	
9. Designated Facility Name and Site Address <b>Ecobay Control Industries 255 Parr Boulevard Richmond CA 94801</b>		10. US EPA ID Number <b>CAD009466392</b>		G. State Facility ID	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity	
a. <b>Non-RCRA Hazardous Waste, Solid (EMPTY STORAGE TANK(S))</b>		No. Type		Unit Wt/Vol	
		<b>0101 TP 0103100</b>		<b>P</b>	
b.					
c.					
d.					
15. Special Handling Instructions and Additional Information <b>Wear appropriate protective equipment while handling. Weights or volumes are approximate. 24 Hour emergency telephone number (800) 321-5479 (ECI Dispatcher). DOT ERG# 11a)</b> <b>SITE ADDRESS: 1063 Jefferson St Benicia, Ca. 94510</b>					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this manifestation are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name <b>Martin Fahy</b>		Signature <i>Martin Fahy</i>		Month Day Year <b>01 10 05 06</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>James L Butler</b>		Signature <i>James L Butler</i>		Month Day Year <b>01 10 05 06</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name <b>James Wilcox</b>					
Signature <i>James Wilcox</i>		Month Day Year <b>01 10 05 06</b>			

DO NOT WRITE BELOW THIS LINE.

State of California—Environmental Protection Agency  
EPA Approved OMB No. 2050-0039 (Expires 9-30-99)  
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control  
Sacramento, California

FACILITY  
BY USE OF TELEPHONE OR FAX, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>CA1C1010215191815019</b>	Manifest Document No. <b>920116</b>	2. Page 1 <b>1 of 1</b>	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address <b>U.S. Army Corp of Engineers 1325 L St Sacramento, Ca 95814</b>			A. State Manifest Document Number <b>24792016</b>		
4. Generator's Phone <b>(916) 557-6700</b>			B. State Generator's ID		
5. Transporter 1 Company Name <b>Ecology Control Industries</b>		6. US EPA ID Number <b>CA1D982030173</b>	C. State Transporter's ID (Reserved)		
7. Transporter 2 Company Name		8. US EPA ID Number	D. Transporter's Phone <b>510 236-1389</b>		
9. Designated Facility Name and Site Address <b>Ecology Control Industries 266 Parr Boulevard Richmond CA 94801</b>		10. US EPA ID Number <b>CA1D009466392</b>	E. State Transporter's ID (Reserved)		
			F. Transporter's Phone		
			G. State Facility ID		
			H. Facility's Phone		
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	15. Other
a. <b>Non-RCRA Hazardous Waste, Spill (EMPTY STORAGE TANK(S))</b>		<b>0101 TP</b>	<b>14500</b>	<b>P</b>	<b>NONE</b>
b.					
c.					
d.					
16. Special Handling Instructions and Additional Information <b>Wear appropriate protective equipment while handling. Weights or volumes are approximate. 24 Hour emergency telephone number (800) 321-5479 (ECI Dispatcher). DOT ERG# 11a. SITE ADDRESS: 940 Tyler St Benecia, Ca 94510</b>					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name <b>Martin Fakhias</b>		Signature <i>[Signature]</i>		Month <b>01</b>	Day <b>05</b>
17. Transporter 1 Acknowledgment of Receipt of Materials		Signature <i>[Signature]</i>		Year <b>06</b>	
Printed/Typed Name <b>James L Butler</b>		Signature <i>[Signature]</i>		Month <b>01</b>	Day <b>05</b>
18. Transporter 2 Acknowledgment of Receipt of Materials		Signature		Year <b>06</b>	
Printed/Typed Name		Signature		Month	Day
19. Discrepancy Indication Space					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 11. Printed/Typed Name <b>James Wilcox</b>					
Signature <i>[Signature]</i>		Month <b>01</b>	Day <b>05</b>	Year <b>06</b>	

DO NOT WRITE BELOW THIS LINE.

DAY OR NIGHT

CERTIFICATE

TELEPHONE

CERTIFIED SERVICES COMPANY

(510) 235-1393

255 Parr Boulevard - Richmond, California 94801

CUSTOMER
GEOCON
JOB. NO 5272089

1063 Jefferson St  
Benecia, Ca

FOR: ECOLOGY CONTROL INC

TANK NO: 32893

LOCATION: RICHMOND

DATE: 1/6/06 TIME: 3:45pm

TEST METHOD: VISUAL GASTECH/1314 SMPN

LAST PRODUCT: FUEL OIL

This is to certify that I have personally determined that this is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE: 250 GALLON

CONDITION: SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1% ECOLOGY CONTROL INDUSTRIES

HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED

AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.

ECOLOGY CONTROL INDUSTRIES HAS THE APPROPRIATE PERMITS FOR AND HAS ACCEPTED

THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

**STANDARD SAFETY DESIGNATION**

**SAFE FOR MEN:** Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) in the judgment of the Inspector's certificate

**SAFE FOR FIRE:** Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) in the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued

*Lyann Carter*  
REPRESENTATIVE

TITLE

*James Wilcox*  
INSPECTOR

TELEPHONE

(510) 236-1383

**CERTIFIED SERVICES COMPANY**

255 Parr Boulevard - Richmond, California 94801

CUSTOMER
GECON
JOB. NO 5212058

940 Tyler Street  
Benecia, Ca

FOR: ECOLOGY CONTROL INC

TANK NO : 32894

LOCATION: RICHMOND

DATE: 1/6/08 TIME: 3:45pm

TEST METHOD: VISUAL GASTECH/1314 SMPN

LAST PRODUCT FUEL OIL

This is to certify that I have personally determined that this is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE : 3,000 GALLON

CONDITION: SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1% ECOLOGY CONTROL INDUSTRIES

HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED

AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.

ECOLOGY CONTROL INDUSTRIES HAS THE APPROPRIATE PERMITS FOR AND HAS ACCEPTED

THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur

**STANDARD SAFETY DESIGNATION**

**SAFE FOR MEN:** Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) In the judgment of the Inspector's certificate.

**SAFE FOR FIRE:** Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) in the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued

REPRESENTATIVE

TITLE

INSPECTOR