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SOIL SAMPLING EVENT REPORT NUMBER 12 OPERABLE UNIT 1 (OU1) NAS JACKSONVILLE FL
10/1/1992
ABB ENVIRONMENTAL

SAMPLING EVENT REPORT NUMBER 12

SOIL SAMPLING
OPERABLE UNIT NO. 1
NAVAL INSTALLATION RESTORATION PROGRAM
JACKSONVILLE NAVAL AIR STATION
JACKSONVILLE, FLORIDA

CONTRACT TASK ORDER NO. 040
NAVY CLEAN - DISTRICT 1
Contract No. N62467-89-D-0317

October 1992

Submitted by:

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1.0 INTRODUCTION

The U.S. Navy has prepared, as part of the Naval Installation Restoration Program Plan, Naval Air Station (NAS) Jacksonville, Florida, a Remedial Investigation/ Feasibility Study (RI/FS) Work Plan for Operable Unit No. 1 (OU1). OU1 includes potential source(s) of contamination (PSC) 26, also known as Old Main Registered Area, and PSC 27, the former Polychlorinated Biphenyl Transformer Storage Area (Figures 1-1 and 1-2). The RI/FS Work Plan (Volume 5, September 1991) describes field investigation techniques that will be utilized to collect data and conduct a preliminary identification of potential exposure pathways, remedial action alternatives, and treatability options. The overall objective of the field investigations at OU1 are to identify, under existing conditions: (1) the physical characteristics relating to the physiography, geology, hydrology, and topography as they relate to potential contaminant migration; and (2) the contaminants of concern and their distribution in various media (soil, sediments, groundwater, surface water, soil gas, and air).

Previous field investigations by the U.S. Army Corps of Engineers in 1991 identified subsurface soils that were contaminated with hydrocarbon compounds (U.S. Army Corps of Engineers). In 1991, Geraghty & Miller identified subsurface soils that were contaminated with volatile organic compounds (VOCs); base, neutral and acid extractable organic compounds (BNAs); polychlorinated biphenyls (PCBs); radionuclides; and inorganic constituents (Geraghty & Miller, 1991a). These field efforts did not include the collection of background samples. These data were used to conduct a preliminary assessment of the potential exposure of ground-maintenance personnel to site conditions at OU1. The data were not sufficient to delineate the horizontal and vertical extent of contaminated soils. Additional soil sampling efforts were proposed by the Navy in the RI/FS Work Plan for OU1 (Geraghty & Miller, 1991c). The purpose of the proposed soil sampling activities was to collect data to assess risks associated with exposure to the constituents of concern, determine horizontal and vertical extent of contaminants, collect background data, and screen potential remedial alternatives that may be appropriate for the identified risks.

Volume 5, Section 5.0, Remedial Investigation Field Tasks, of the RI/FS Work Plan presents the data collection procedures to be utilized in characterizing potentially contaminated media at OU1. Section 5.6 of the Work Plan presents the field investigation techniques to be used for soil sampling efforts. The purpose of soil sampling at OU1 is to supplement existing data and to determine the horizontal and vertical extent of contamination of OU1 site soils. Additionally, the characterization of soils will support a general assessment of the site soils to be an exposure pathway, for contaminants released at OU1, to both human and environmental receptors.

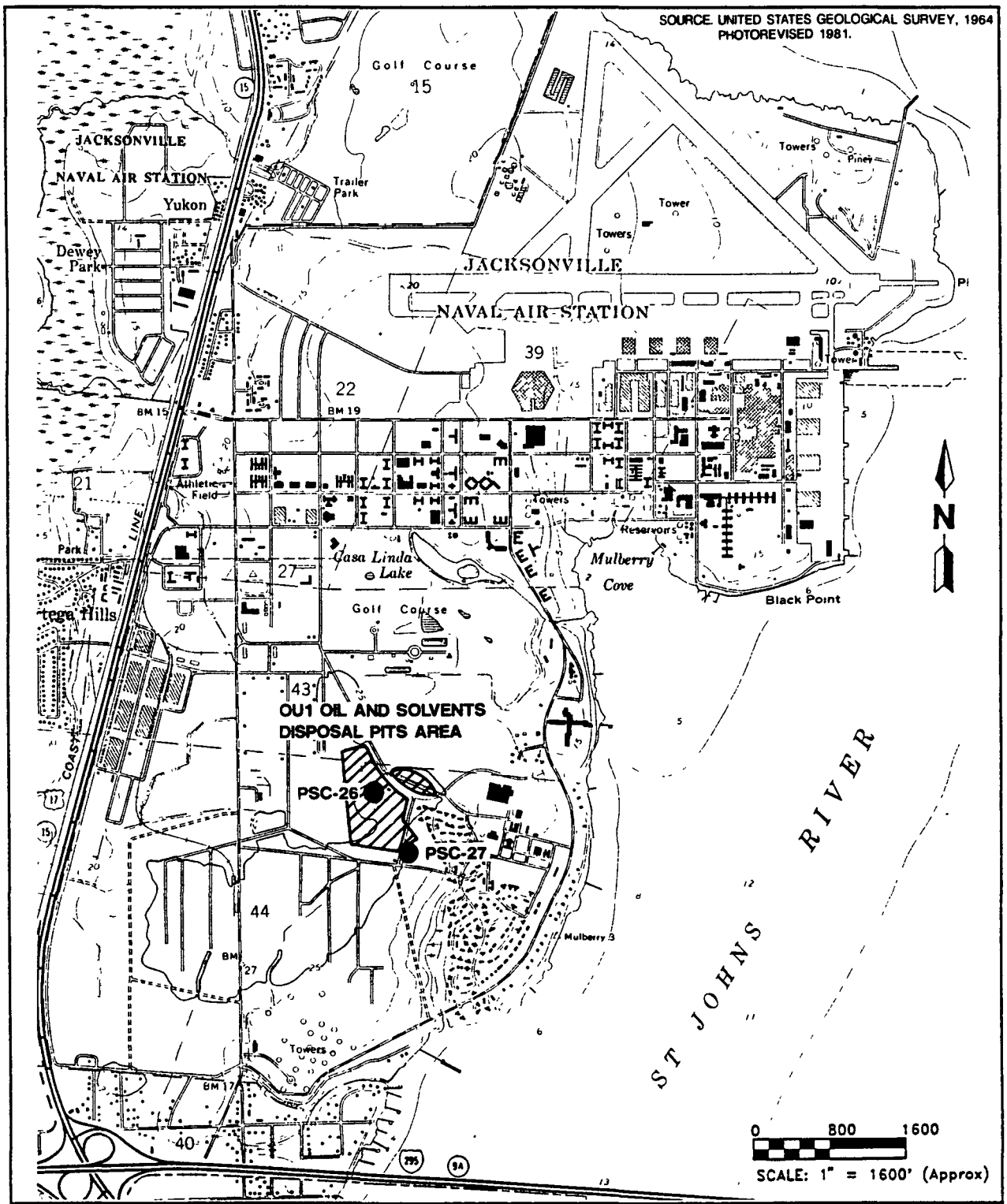

FIGURE 1-1
LOCATION OF OU1, OIL AND SOLVENTS DISPOSAL PITS AREA PSC-26 AND PSC-27

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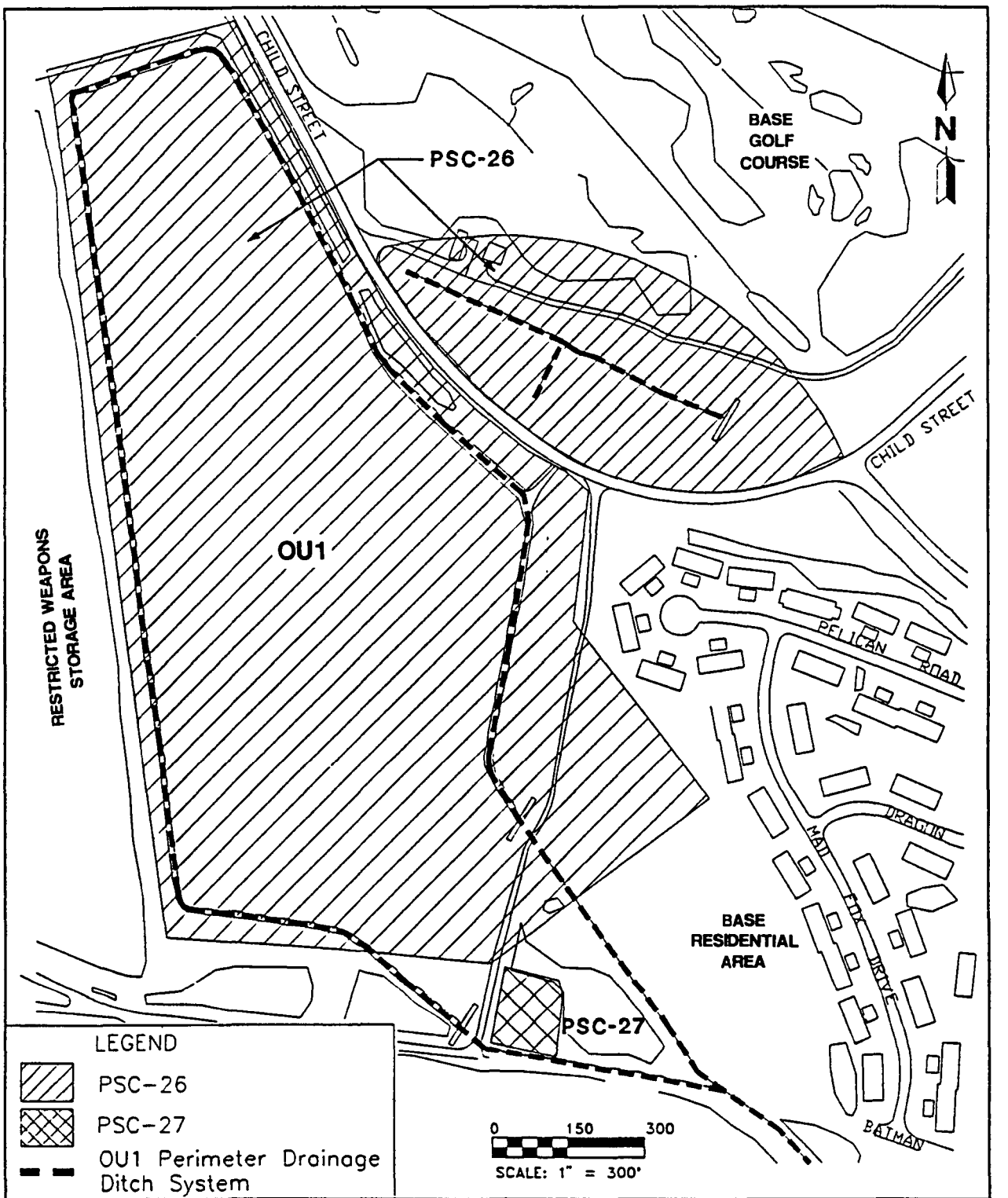

FIGURE 1-2
DISPOSAL PITS AREA INCLUDING PSC-26, OLD MAIN REGISTERED AREA AND PSC-27, FORMER PCB TRANSFORMER STORAGE AREA

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Sections of the RI/FS Work Plan applicable to soil sampling include:

- Volume 1, Organization and Planning, Section 2.5, Data Reduction and Presentation;
- Volume 5, Work Plan, Section 5.6, Soil Sampling;
- Volume 5, Appendix 5.4.1, Table 1-1, Selected Constituents, Methods of Analysis, and Numbers of Surface-water, Sediment, Ground-water, and Soil Samples to be Analyzed During the RI at OU1, NAS Jacksonville;
- Volume 5, Appendix 5.4.1, Table 1-3, Field Quality Control (QC) Samples to be Collected During the RI at OU1, NAS Jacksonville;
- Volume 5, Appendix 5.4.1, Section 3.0, Quality Assurance Objectives;
- Volume 5, Appendix 5.4.1, Table 8-1, Field QC Samples Required for Each Matrix per Sampling Event;
- Volume 5, Appendix 5.4.2, Section 2.4, Soil Sampling;
- Volume 5, Appendix 5.4.2, Table 2.1, Soil Sample Locations, Depths, and Constituents for Analysis;
- Volume 5, Appendix 5.4.2, Section 4.3, Surface and Subsurface Soil Sampling;
- Volume 5, Appendix 5.4.2, Section 4.7, Collection of Field Quality Control Samples; and
- Volume 5, Appendix 5.4.2, Section 4.9, Equipment Cleaning.

2.0 WORK PERFORMED

2.1 SOIL SAMPLING PROGRAM

The soil sampling investigation at OU1 was conducted in two separate sampling events. Sampling event No. 1 was completed to assess health and safety requirements for onsite personnel, whereas sampling event No. 2 was conducted according to the RI/FS Work Plan to investigate the extent of horizontal and vertical soil contamination. A summary of the soil samples collected, the respective sampling depths, and analytical parameters conducted is presented in Table 2-1.

Soil sampling event No. 1 was conducted to assess the adequacy of the proposed Level D health and safety requirements for onsite personnel and to determine the required level of site engineering controls necessary to minimize surface traffic and dust associated with traffic. The soil sampling event consisted of the collection of surficial soils for chemical analysis of contaminants reported to be present at the site. Additionally, a "worst case" soil sample was collected from a depth of approximately 10 feet below land surface (bls). The "worst case," 10-foot sample, was collected in an area identified by the Army Corps of Engineers Site Characterization and Analysis Penetrometer System (SCAPS) investigation, June 1991, to contain some of the highest concentrations of contaminants at the site.

Sampling event No. 1 was conducted on December 17 and 18, 1991. Thirteen surficial soil samples were collected by ABB-ES at sampling locations SL015, SL021, SL068, SL070, SL073, SL074, SL101, SL102, SL103, SL104, SL105, SL106, and SL107 (Figure 2-1). The designated "worst case" soil sample was collected at location SL040 (Figure 2-1). The samples were analyzed for concentrations of volatile organic compounds (Method 624/8240), base, neutral, and acid extractable organics (Method 625/8270), polychlorinated biphenyls (PCBs) (Method 608/8080), metals (Methods according to target analyte list [TAL]), radionuclides (Methods 9310,9315, 9320), and dioxin (Methods for Dioxin and Furans).

Results of the sampling event No. 1 indicated the presence of PCB concentrations above the U.S. Environmental Protection Agency (USEPA) residential policy limit of 1 part per million (ppm) in areas designated as work and support zones. Upon review of these results, engineering controls were implemented to minimize dust created by traffic in these areas. A limestone gravel road was constructed across the support zone area and a limestone gravel apron was constructed at the location of the field operations trailer and associated parking area. Fencing was erected along portions of the gravel road and support zone to control the direction of traffic and control access of personnel as they enter and exit the "hot" work zone areas of OU1. A chain-link fence was later erected along the boundary of OU1 to restrict access to OU1 and to prevent any potential access from the adjacent base areas (Figure 1-2).

Table 2-1
Soil Sampling Summary,
December 1991 through April 1992

NAS Jacksonville
Jacksonville, Florida

Sample Location	Sample Depth (bls)	Shallow Surface Samples (0-3" bls)						Shallow Subsurface Samples (24-48" bls)						Deep Subsurface Samples (48"bls-DTW)					
		SVO(1)	VOC(2)	PCB(3)	Metals(4)	RAD(5)	Dioxin(6)	SVO	VOC	PCB	Metals	RAD	Dioxin	SVO	VOC	PCB	Metals	RAD	Dioxin
JSL 011	0-3", 2-4'			X				X	X	X	X	X							
JSL 012	0-3"			X															
JSL 013	0-3", 2-4'			X				X	X	X	X	X							
JSL 014	0-3"			X															
JSL 015	0-3"			X															
JSL 016	0-3"			X															
JSL 017	0-3"			X															
JSL 018	0-3"			X															
JSL 019	0-3"			X															
JSL 020	0-3"			X															
JSL 021	0-3"			X															
JSL 022	0-3", 2-4'			X				X	X	X	X	X							
JSL 023	0-3"			X															
JSL 024	0-3", 2-4'			X				X	X	X	X	X							
JSL 025	0-3"			X															
JSL 026	0-3", 2-4'			X				X	X	X	X	X							
JSL 028	0-3"			X															
JSL 029	0-3"			X															
JSL 032	0-3", 2-4'			X				X	X	X	X	X							
JSL 033	0-3"			X															
JSL 034	0-3", 9-11'						X							X	X	X	X	X	X
JSL 035	9-11'													X	X	X	X	X	
JSL 039	0-3", 10-12'						X							X	X	X	X	X	X
JSL 040	0-3", 9-11'					X	X							X	X	X	X	X	X
JSL 041	0-3", 3-4'			X				X	X	X	X	X							
JSL 042	0-3"			X															
JSL 043	0-3", 5-7'						X							X	X	X	X	X	X
JSL 044	0-3", 7-9'						X							X	X	X	X	X	X
JSL 045	0-3"			X															
JSL 047	0-3", 3-5'						X							X	X	X	X	X	X

See notes at end of table

Table 2-1 (Continued)
Soil Sampling Summary,
December 1991 through April 1992

NAS Jacksonville
Jacksonville, Florida

Sample Location	Sample Depth (bls)	Shallow Surface Samples (0-3" bls)						Shallow Subsurface Samples (24-48" bls)						Deep Subsurface Samples (48"bls-DTW)					
		SVO(1)	VOC(2)	PCB(3)	Metals(4)	RAD(5)	Dioxin(6)	SVO	VOC	PCB	Metals	RAD	Dioxin	SVO	VOC	PCB	Metals	RAD	Dioxin
JSL 048	0-3", 1-2'			X				X	X	X	X	X							
JSL 050	0-3", 2-4'			X				X	X	X	X	X							
JSL 051	0-3"			X															
JSL 052	0-3", 1-2'			X				X	X	X	X	X							
JSL 053	0-3", 4-6'			X										X	X	X	X	X	
JSL 056	0-3"	X	X	X	X	X													
JSL 057	0-3"	X	X	X	X	X													
JSL 058	0-3"	X	X	X	X	X													
JSL 059	0-3"	X	X	X	X	X													
JSL 060	0-3"	X	X	X	X	X													
JSL 061	0-3"	X	X	X	X	X													
JSL 062	0-3"	X	X	X	X	X													
JSL 063	0-3"	X	X	X	X	X													
JSL 064	0-3"	X	X	X	X	X													
JSL 065	0-3"	X	X	X	X	X													
JSL 066	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 067	0-3"	X	X	X	X	X													
JSL 068	0-3"	X	X	X	X	X	X												
JSL 069	0-3",1-2'	X	X	X	X	X	X	X	X	X	X	X	X						
JSL 070	0-3"	X	X	X	X	X													
JSL 071	0-3"	X	X	X	X	X													
JSL 072	0-3", 5-7'	X	X	X	X	X								X	X	X	X	X	
JSL 073	0-3", 4-6'	X	X	X	X	X	X							X	X	X	X	X	
JSL 074	0-3", 5-6'	X	X	X	X	X	X							X	X	X	X	X	
JSL 075	0-3"	X	X	X	X	X													
JSL 076	0-3"	X	X	X	X	X													
JSL 077	0-3", 4-5'	X	X	X	X	X								X	X	X	X	X	
JSL 078	0-3"			X															
JSL 079	0-3",4-6'	X	X	X	X	X								X	X	X	X	X	
JSL 080	0-3"	X	X	X	X	X													
JSL 081	0-3",3-5'	X	X	X	X	X								X	X	X	X	X	

See notes at end of table.

Table 2-1 (Continued)
Soil Sampling Summary,
December 1991 through April 1992

NAS Jacksonville
Jacksonville, Florida

Sample Location	Sample Depth (bls)	Shallow Surface Samples (0-3" bls)						Shallow Subsurface Samples (24-48" bls)						Deep Subsurface Samples (48"bls-DTW)					
		SVO(1)	VOC(2)	PCB(3)	Metals(4)	RAD(5)	Dioxin(6)	SVO	VOC	PCB	Metals	RAD	Dioxin	SVO	VOC	PCB	Metals	RAD	Dioxin
JSL 082	0-3",3-5'	X	X	X	X	X								X	X	X	X	X	
JSL 083	0-3",5-7'	X	X	X	X	X								X	X	X	X	X	
JSL 084	0-3"	X	X	X	X	X													
JSL 085	0-3"	X	X	X	X	X													
JSL 086	0-3"	X	X	X	X	X													
JSL 087	0-3"	X	X	X	X	X													
JSL 088	0-3"	X	X	X	X	X													
JSL 089	0-3"	X	X	X	X	X													
JSL 090	0-3"	X	X	X	X	X													
JSL 091	0-3"	X	X	X	X	X													
JSL 092	0-3"	X	X	X	X	X													
JSL 093	0-3"	X	X	X	X	X													
JSL 094	0-3"	X	X	X	X	X													
JSL 095	0-3"	X	X	X	X	X													
JSL 096	0-3", 2-4'	X	X	X	X	X	X	X	X	X	X	X	X						
JSL 097	1-3', 7-9'							X	X	X	X	X		X	X	X	X	X	
JSL 098	7-9'													X	X	X	X	X	
JSL 099	5-7'													X	X	X	X	X	
JSL 100	4-6'													X	X	X	X	X	
JSL 101	0-3"			X															
JSL 102	0-3"			X															
JSL 103	0-3"			X															
JSL 104	0-3"			X															
JSL 105	0-3"			X															
JSL 106	0-3"			X															
JSL 107	0-3"			X															
JSL 108	0-3"			X															
JSL 109	0-3"			X															
JSL 110	0-3"			X															
JSL 111	0-3", 2-4'			X				X	X	X	X	X							
JSL 112	0-3"			X															

See notes at end of table

Table 2-1 (Continued)
Soil Sampling Summary,
December 1991 through April 1992

NAS Jacksonville
Jacksonville, Florida

Sample Location	Sample Depth (bls)	Shallow Surface Samples (0-3" bls)						Shallow Subsurface Samples (24-48" bls)						Deep Subsurface Samples (48"bls-DTW)					
		SVO(1)	VOC(2)	PCB(3)	Metals(4)	RAD(5)	Dioxin(6)	SVO	VOC	PCB	Metals	RAD	Dioxin	SVO	VOC	PCB	Metals	RAD	Dioxin
JSL 113	0-3"			X															
JSL 114	0-3"			X															
JSL 115	0-3"			X															
JSL 116	0-3"			X															
JSL 117	0-3"			X															
JSL 118	0-3"			X															
JSL 119	0-3"			X															
JSL 120	0-3"			X															
JSL 121	0-3"			X															
JSL 122	0-3"			X															
JSL 123	0-3"			X															
JSL 124	0-3"			X															
JSL 125	0-3"			X															
JSL 126	0-3"			X															
JSL 127	0-3"			X															
JSL 27001	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27002	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27003	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27004	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27005	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27006	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27007	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27008	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27009	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27010	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27011	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							

(1) Analysis for Semivolatile Organic Compounds Method 625/8270
(2) Analysis for Volatile Organic Compounds Method 624/8240
(3) Analysis for Polychlorinated Biphenyls and Pesticides Method 608/8080
(4) Analysis for Target Analyte List Metals
(5) Analysis for Radiological Parameters Methods 9310, 9315, 9320
(6) Analysis for Dioxin and Furans

Notes DTW = depth to water
bls = below land surface
SVO = semivolatile organic compounds
VOC = volatile organic compounds
PCB = polychlorinated biphenyls.
RAD = radionuclides

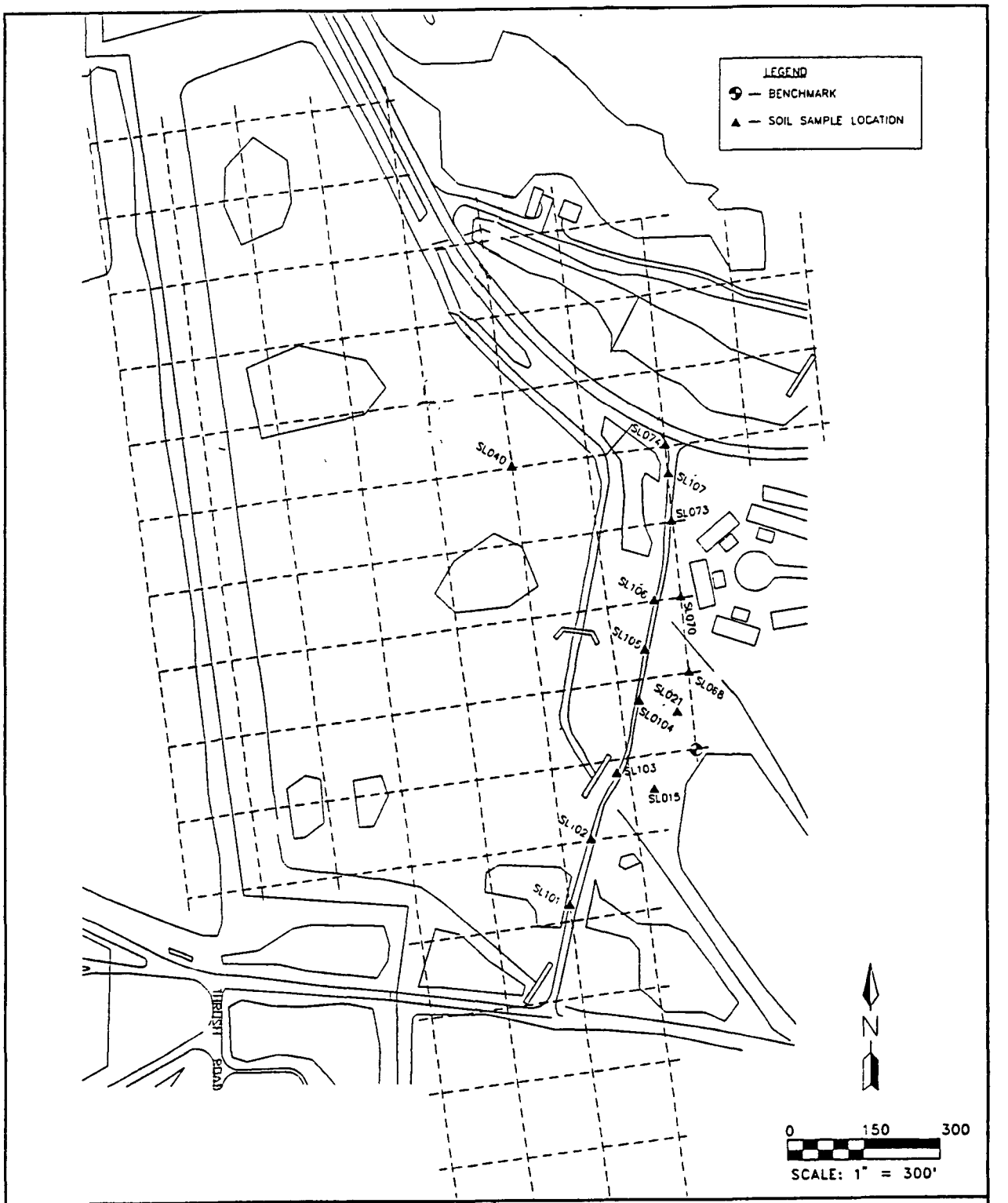
Table 2-1 (Continued)
Soil Sampling Summary,
December 1991 through April 1992

NAS Jacksonville
Jacksonville, Florida

Sample Location	Sample Depth (bls)	Shallow Surface Samples (0-3" bls)						Shallow Subsurface Samples (24-48" bls)						Deep Subsurface Samples (48"bls-DTW)					
		SVO(1)	VOC(2)	PCB(3)	Metals(4)	RAD(5)	Dioxin(6)	SVO	VOC	PCB	Metals	RAD	Dioxin	SVO	VOC	PCB	Metals	RAD	Dioxin
JSL 113	0-3"			X															
JSL 114	0-3"			X															
JSL 115	0-3"			X															
JSL 116	0-3"			X															
JSL 117	0-3"			X															
JSL 118	0-3"			X															
JSL 119	0-3"			X															
JSL 120	0-3"			X															
JSL 121	0-3"			X															
JSL 122	0-3"			X															
JSL 123	0-3"			X															
JSL 124	0-3"			X															
JSL 125	0-3"			X															
JSL 126	0-3"			X															
JSL 127	0-3"			X															
JSL 27001	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27002	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27003	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27004	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27005	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27006	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27007	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27008	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27009	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27010	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							
JSL 27011	0-3", 2-4'	X	X	X	X	X		X	X	X	X	X							

(1) Analysis for Semivolatile Organic Compounds Method 625/8270.
(2) Analysis for Volatile Organic Compounds Method 624/8240
(3) Analysis for Polychlorinated Biphenyls and Pesticides Method 608/8080.
(4) Analysis for Target Analyte List Metals
(5) Analysis for Radiological Parameters Methods 9310, 9315, 9320
(6) Analysis for Dioxin and Furans.

Notes DTW = depth to water
bls = below land surface.
SVO = semivolatile organic compounds
VOC = volatile organic compounds
PCB = polychlorinated biphenyls.
RAD = radionuclides



JA26R-A

FIGURE 2-1
INITIAL SOIL SAMPLING LOCATIONS

SAMPLING EVENT REPORT NUMBER 12-SOIL SAMPLING PHASE I

NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

Based upon the results of the initial sampling event, 16 additional shallow soil sample locations were identified and proposed for inclusion in the second sampling event. The additional soil samples designated SL114 through SL123 were collected along the housing side of the newly erected fence in proximity to the base housing area (Figure 2-2). Samples SL108 through SL113 were collected in the vicinity of Child Street and the entrance gate to OU1 to determine PCB concentrations present in this area and assess the potential for offsite deposition of PCBs due to OU1 site traffic (Figure 2-2). Because the purpose of soil sampling event No. 1 was limited to assessing health and safety requirements and determining engineering controls to prevent the spread of contamination, tabulation of the analytical data has not been included in this report.

Soil sampling event No. 2 was initiated on February 5, 1992, and completed March 11, 1992. Soil sampling locations were surveyed and staked by Atlantic Engineering of Jacksonville, Florida (a licensed surveyor), prior to ABB-ES conducting sampling activities. The sample collection technique was modified for soil sampling event No. 2 based upon information gathered during collection of the "worst case" soil sample SL040. During sampling operations at location SL040, ABB-ES personnel determined that the original hand auger method of soil sampling detailed in Section 4.3.3 of the Field Sampling and Analysis Plan (FSP) in Appendix 5.4.2 of Volume 5 of the RI/FS Work Plan would not be feasible at the site due to large amounts of trash and concrete rubble present immediately below the site surface. Thus, to collect soil samples more efficiently, a drill rig was used for the second sampling event. Boreholes were completed utilizing the hollow stem auger drilling technique as specified in Volume 4, Basic Site Work Plan, Section 3.2.3.4. Soil samples were collected through the hollow stem of the augers using either a split-spoon sampler or a hand auger. Soil sampling locations for sampling event No. 2 are shown in Figure 2-2.

2.2 SOIL SAMPLE COLLECTION METHODS

All soil sampling event No. 1 soil sampling operations at PSC 26 and PSC 27 were conducted according to procedures presented in the RI/FS Work Plan referenced in Section 4.3.2, Shallow Subsurface Soil Sampling, of the FSP (Appendix 5.4.2 of Volume 5). As stated previously, because of the large amounts of "trash" and concrete rubble, boreholes for sampling event No. 2 were drilled using a drill rig equipped with hollow stem augers. This method of sample collection deviated from the portable power auger and hand auger methods stated in Section 4.3.3 Deep Subsurface Soil Sampling of the FSP (Appendix 5.4.2, Volume 5). Soil samples were collected with stainless-steel hand augers or stainless-steel split spoons as specified in the RI/FS Work Plan.

Depths from which individual soil samples were collected were:

- 0 through 3 inches bls,
- 24 through 48 inches bls, and
- 48 inches bls to the water table.

Individual soil samples collected for base, neutral, and acid extractable organics (BNA), pesticides and PCBs, inorganics, radionuclides, and furans were composited using a stainless-steel spoon in glass mixing bowls prior to placement in the sample jars. Individual soil samples for volatile organic compound analysis were placed directly into a sample container without mixing.

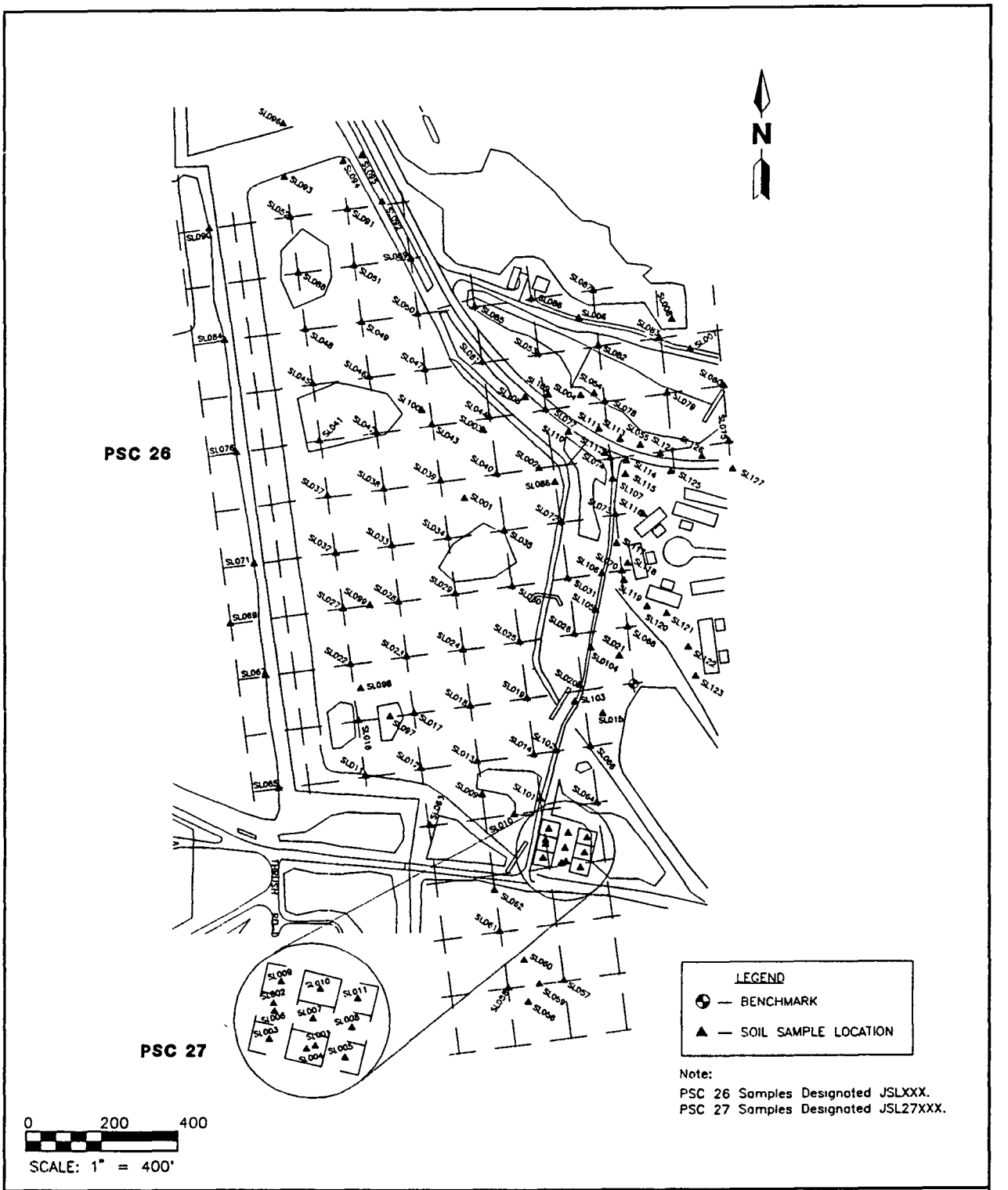


FIGURE 2-2
SOIL SAMPLING LOCATIONS

SAMPLING EVENT REPORT NUMBER 12-SOIL SAMPLING PHASE 1

NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

To collect the subsurface soil samples, an initial borehole was drilled using the hollow stem auger drilling technique while continuously screening borehole cuttings with an organic vapor analyzer (OVA). OVA readings were recorded for each soil depth and are presented in Table 2-2. The depth interval of each borehole that exhibited the highest OVA reading was selected for soil sample collection. The individual soil sample for the second and third depth intervals were collected from a second borehole drilled adjacent to the initial borehole. After advancing the hollow stem augers to a predetermined sample collection depth, sampling tools (split spoon or hand auger) were inserted inside the augers and the individual soil sample was collected. In those instances where no elevated OVA readings (OVA readings of 0 ppm) were recorded throughout the entire depth of the borehole, a soil sample representative of the vadose zone (unsaturated zone above the water table) was collected.

Sample Documentation. Documentation of drilling and sampling activities was maintained in the form of Field Log Books, Soil Boring Log Forms, Sample Registers, and Chain of Custody Forms. Lithologic soil boring logs were prepared based on the onsite geologist's field description of the soil cuttings and are provided in Appendix A.

Equipment Decontamination. Borehole drilling and sampling equipment was decontaminated in accordance with Volume 5, Appendix 5.4.2, Section 4.9, Equipment Cleaning, of the RI/FS Work Plan, 1991b. The following decontamination procedures were employed.

1. Equipment was thoroughly rinsed with potable tap water or deionized/ organic-free water (ASTM Type II water) in the field as soon as possible after use.

2. Equipment was thoroughly washed with laboratory detergent and ASTM Type II water using a brush to remove any particulate matter or surface film.

3. Equipment was then thoroughly rinsed with ASTM Type II water.

4. Equipment was rinsed with isopropanol alcohol.

5. Equipment was again rinsed with ASTM Type II water.

6. Equipment was then allowed to air dry.

7. Finally, equipment was wrapped completely with aluminum foil to prevent contamination during storage and/or transport to the field.

Table 2-2
Organic Vapor Measurements of Composite Soil Samples PSC 26 and PSC 27

NAS Jacksonville,
Jacksonville, Florida

Soil Sample Location	0-3 Inches (bls)	3"-2 Feet (bls)	2-3 Feet (bls)	3-4 Feet (bls)	4-5 Feet (bls)	5-6 Feet (bls)	6-7 Feet (bls)	7-8 Feet (bls)	8-9 Feet (bls)	9-10 Feet (bls)	10-11 Feet (bls)	11-12 Feet (bls)	12-13 Feet (bls)	13-14 Feet (bls)	14-15 Feet (bls)
JSL 011	4	200	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 012	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 013	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 014	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 015	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 016	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 017	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 018	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 019	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 020	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 021	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 022	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 023	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 024	0	0	12	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 025	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 026	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA
JSL 028	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 029	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 032	0	NC	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 033	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 034	0	NC	NC	4	0	0	0	0	0	0	0	0	0	0	0
JSL 035	0	0	0	0	0	0	30	280	100	70	400	130	NA	NA	NA
JSL 039	0	0	0	0	0	0	0	0	0	0	48	200	130	NA	NA
JSL 040	0	0	0	5	25	150	3,000	5,000	1,500	NC	70	30	3,000	NA	NA
JSL 041	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See notes at end of table.

Table 2-2 (Continued)
Organic Vapor Measurements of Composite Soil Samples PSC 26 and PSC 27

NAS Jacksonville,
Jacksonville, Florida

Soil Sample Location	0-3 Inches (bls)	3"-2 Feet (bls)	2-3 Feet (bls)	3-4 Feet (bls)	4-5 Feet (bls)	5-6 Feet (bls)	6-7 Feet (bls)	7-8 Feet (bls)	8-9 Feet (bls)	9-10 Feet (bls)	10-11 Feet (bls)	11-12 Feet (bls)	12-13 Feet (bls)	13-14 Feet (bls)	14-15 Feet (bls)
JSL 042	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JSL 044	0	5	35	20	700	250	1,500	2,500	800	3,200	900	NA	NA	NA	NA
JSL 045	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 047	0	NC	NC	120	280	330	20	20	15	10	NA	NA	NA	NA	NA
JSL 048	0	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 050	0	0	16	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 051	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 052	0	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 053	0	0	0	0	0	0	0	0	6	0	NA	NA	NA	NA	NA
JSL 056	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 057	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 058	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 059	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 060	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 061	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 062	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 063	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 064	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 065	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 066	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 067	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 068	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 069	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 070	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See notes at end of table.

Table 2-2 (Continued)
Organic Vapor Measurements of Composite Soil Samples PSC 26 and PSC 27

NAS Jacksonville,
Jacksonville, Florida

Soil Sample Location	0-3 Inches (bls)	3"-2 Feet (bls)	2-3 Feet (bls)	3-4 Feet (bls)	4-5 Feet (bls)	5-6 Feet (bls)	6-7 Feet (bls)	7-8 Feet (bls)	8-9 Feet (bls)	9-10 Feet (bls)	10-11 Feet (bls)	11-12 Feet (bls)	12-13 Feet (bls)	13-14 Feet (bls)	14-15 Feet (bls)
JSL 071	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 072	0	0	0	0	0	0	0	0	12	5	NA	NA	NA	NA	NA
JSL 073	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 074	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 075	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 076	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 077	0	NC	NC	NC	18	380	22	55	1,500	150	NA	NA	NA	NA	NA
JSL 078	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 079	0	0	0	0	0	0	0	5	0	0	NA	NA	NA	NA	NA
JSL 080	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 081	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
JSL 082	5	10	1,500	1,500	1,000	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 083	0	0	18	16	500	330	500	1,200	25	NA	NA	NA	NA	NA	NA
JSL 084	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 085	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 086	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 087	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 088	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 089	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 090	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 091	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 092	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 093	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 094	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 095	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See notes at end of table.

Table 2-2 (Continued)
Organic Vapor Measurements of Composite Soil Samples PSC 26 and PSC 27

NAS Jacksonville,
Jacksonville, Florida

Soil Sample Location	0-3 Inches (bls)	3"-2 Feet (bls)	2-3 Feet (bls)	3-4 Feet (bls)	4-5 Feet (bls)	5-6 Feet (bls)	6-7 Feet (bls)	7-8 Feet (bls)	8-9 Feet (bls)	9-10 Feet (bls)	10-11 Feet (bls)	11-12 Feet (bls)	12-13 Feet (bls)	13-14 Feet (bls)	14-15 Feet (bls)
JSL 096	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 097	150	1,400	10	70	250	25	500	70	450	100	50	18	NA	NA	NA
JSL 098	10	0	1,700	2,000	250	100	1,800	2,000	2,500	100	NA	NA	NA	NA	NA
JSL 099	0	60	65	220	270	90	260	125	30	NA	NA	NA	NA	NA	NA
JSL 100	0	0	0	0	70	25	10	NA	NA	NA	NA	NA	NA	NA	NA
JSL 101	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 102	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 103	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 104	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 105	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 106	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 107	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 108	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 109	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 110	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 111	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 113	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 112	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 114	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 115	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 116	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N	NA	NA
JSL 117	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 118	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 119	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 120	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See notes at end of table.

Table 2-2 (Continued)
Organic Vapor Measurements of Composite Soil Samples PSC 26 and PSC 27

NAS Jacksonville,
Jacksonville, Florida

Soil Sample Location	0-3 Inches (bls)	3"-2 Feet (bls)	2-3 Feet (bls)	3-4 Feet (bls)	4-5 Feet (bls)	5-6 Feet (bls)	6-7 Feet (bls)	7-8 Feet (bls)	8-9 Feet (bls)	9-10 Feet (bls)	10-11 Feet (bls)	11-12 Feet (bls)	12-13 Feet (bls)	13-14 Feet (bls)	14-15 Feet (bls)
JSL 121	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 122	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 123	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 124	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 125	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 126	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 127	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27001	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA
JSL 27002	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27003	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27004	1	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27005	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27006	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27007	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27008	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27009	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27010	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JSL 27011	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: Organic vapor analyzer (OVA) measurements in parts per million (ppb).
NA = borehole terminated; data not available.
NC = data not collected.
PSC 26 sample = JSL XXX.
PSC 27 sample = JSL 27XXX

2.3 SAMPLE HANDLING, SHIPPING AND CHAIN-OF-CUSTODY

Soil samples and the field quality control (QC) samples were placed in coolers containing ice immediately after collection and were stored on ice in the custody of the Field Operations Leader (FOL) until shipment to the chemical analytical laboratory. The samples were packed for express shipment to the subcontractor laboratory, CH2M Hill, Gainesville, Florida. Prior to the shipment of the samples, the ice in the coolers was replenished, chain-of-custody forms were sealed in the cooler, and two signed custody seals were affixed to the cooler.

Upon receipt of the samples by CH2M Hill, the sample custodian checked the condition of the samples and verified that: (1) the samples had been packed and shipped appropriately, (2) the temperature of the cooler was within the tolerance limits, and (3) the chain-of-custody agreed with the contents of the cooler.

Chain-of-custody records for soil sampling conducted during the investigation conducted at PSC 26 and PSC 27 are presented in Appendix B.

3.0 CHEMICAL ANALYSIS

Each soil sample was analyzed for constituents listed in Appendix 5.4.1 of the RI/FS Work Plan, which included:

- volatile organic compounds (VOCs);
- semivolatile organics;
- pesticides and polychlorinated biphenyls (PCBs);
- target analyte list (TAL) metals and cyanide;
- dioxins and furans; and
- radiological parameters (gross alpha, gross beta, radium-226, and radium-228).

The target constituents are listed in Table 1-1 of the Quality Assurance Project Plan (QAPP) (Appendix 5.4.1), which is contained in Volume 5 of the RI/FS Work Plan (Geraghty & Miller, 1991b). A summary of soil samples and analytical parameters is provided in Table 2-1.

The soil samples were handled and analyzed by CH2M Hill according to the policies and procedures presented in CH2M Hill's FDER-approved Comprehensive Quality Assurance Plan (CompQAP) and in accordance with NEESA and USEPA Contract Laboratory Program specifications. The Analytical Results Report for laboratory soil sample analysis is provided in Appendices C-1 through C-7. Appendices C-1 through C-7 are organized as follows:

- Appendix C-1, VOC analytical results;
- Appendix C-2, Semivolatile organic analytical results;
- Appendix C-3, Pesticides and PCB analytical results;
- Appendix C-4, Inorganics and cyanide analytical results;
- Appendix C-5, Dioxins and furans analytical results;
- Appendix C-6, Radionuclides analytical results; and
- Appendix C-7, Tentatively identified compounds (TICs) analytical results.

4.0 QUALITY CONTROL

4.1 FIELD QUALITY CONTROL (QC)

Three types of QC samples were used to monitor the existence and magnitude of contamination introduced during the field activities and/or in the preparation and analysis of the samples in the laboratory. The three types of QC samples were: equipment rinsate blank, field blank, and trip blank. The water used in the equipment rinsate and field blanks was ASTM Type II water that was obtained from Continental Water Systems of Jacksonville, Florida. The water for the trip blanks was provided by CH2M Hill. Table 4-1 provides a summary of the equipment and field blank samples. Table 4-2 provides a summary of the trip blanks. Field blank sample and analytical result summaries are provided in Appendices D-1 through D-6. Appendices D-1 through D-6 are organized as follows:

- Appendix D-1, VOC analytical results;
- Appendix D-2, Semivolatile orgnaic analytical results;
- Appendix D-3, Pesticides and PCB analytical results;
- Appendix D-4, Inorganics and cyanide analytical results;
- Appendix D-5, Dioxins and furans analytical results; and
- Appendix D-6, Radionuclide analytical results.

The following sections describe each of the three types of QA/QC blanks and constituents detected in each analytical group.

4.1.1 Equipment Rinsate Blank

To collect the equipment rinsate blank, a piece of sampling equipment (e.g., split-spoon sampler or stainless-steel hand auger) was decontaminated, then rinsed with ASTM Type II water. A sample of this rinse water was collected and submitted as an equipment rinsate blank. The purpose of the equipment rinsate blank is to assess the adequacy of decontamination procedures by identifying contaminants that may be introduced because of incomplete decontamination or not allowing the equipment to completely dry (potential source of acetone from isopropyl alcohol rinse). The rinsate blanks were analyzed for the same parameters as the soil samples.

Three volatile organic compounds, 2-butanone, chlorobenzene, and methylene chloride, were detected in rinsate blanks collected during the soil sampling events (Table 4-3). 2-Butanone was detected in four of the samples at concentrations ranging from 8 to 18 $\mu g/\ell$. Concentrations of chlorobenzene were detected in each rinsate blank sample at concentrations ranging from 4 $\mu g/\ell$ to 16 $\mu g/\ell$. Only one rinsate blank, SLEB06, contained methylene chloride at a concentration of 53 $\mu g/\ell$.

Four semivolatile organic compounds, benzo(k)fluoranthene, chrysene, pyrene, and bis(2-ethylhexyl) phthalate were detected in the rinsate samples collected during the soil sampling events (Table 4-4). Benzo(k)fluoranthene, chrysene, and pyrene were each detected as single occurrences in rinsate samples SLEB006, SLEB007, and

Table 4-1
Summary of Equipment and Field Blanks
Soil Sampling
March 1992

NAS Jacksonville
Jacksonville, Florida

Identification Number	Date	Time	Water Used[1]	Sample Collected Prior to Station Number		Equipment Rinsed
				Sample Designation	Depth (feet)	
Equipment Blanks						
SLEB	12-17-91	1330	D.I.	SL040	7.5-8-5	Augers, Spoons, Bowls
SLEB001	03-03-92	1800	D.I.	SL035	0-0.25	Augers, Spoons, Bowls
SLEB002	03-04-92	0830	D.I.	SL035	0-0 25	Augers, Spoons, Bowls
SLEB003	03-05-92	0830	D.I.	SL100	4-6	Augers, Spoons, Bowls
SLEB004	03-06-92	0800	D.I.	SL083	0-0.25	Augers, Spoons, Bowls
SLEB005	03-07-92	0900	D.I.	SL074	0.0.25	Augers, Spoons, Bowls
SLEB006	03-08-92	0800	D.I.	SL022	0-0.25	Augers, Spoons, Bowls
SLEB007	03-10-92	0830	D.I.	SL012	0-0.25	Augers, Spoons, Bowls
SLEB008	03-11-92	1523	D.I.	SL068	0-0.25	Augers, Spoons, Bowls
Field Blanks						
SLFB	12-17-91	1330	D.I.	---		
SLFB 1	03-03-92	1815	D.I.	---		---

[1]Deionized (D.I.) water provided by Continental Water Systems of Jacksonville.

Notes: SLEB = equipment rinsate blank.
SLFB = field blank.

Table 4-2
Summary of Trip Blanks
Soil Sampling
March 1992

NAS Jacksonville
Jacksonville, Florida

Trip Blank Identification Number	Date Collected
SLTB	12-17-91
SLTB001	03-03-92
SLTB002	03-04-92
SLTB003	03-05-92
SLTB004	03-06-92
SLTB005	03-07-92
SLTB006	03-08-92
SLTB007	03-07-92
SLTB008	03-08-92
SLTB009	03-08-92
SLTB010	03-08-92
SLTB011	03-08-92
SLTB012	03-10-92
SLTB013	03-11-92

Note: SLTB = trip blank.

Table 4-3
Summary of Positive Detections in Equipment Rinsate, Field, and Trip Blanks
Volatile Organic Compounds

NAS Jacksonville
Jacksonville, Florida

Volatile Organic Compounds	QC Sample Designation	Sample Collected Prior to QC Sample		Concentration Detected in QC Blank (μg/ℓ)	
		Sample Designation	Sample Depth (feet)		
2-Butanone	SLEB	SL040	7.5-8.5	8	J
	SLEB001	SL035	0-0.25	15	J
	SLEB002	SL035	0-0.25	18	
	SLEB003	SL100	4-6	17	
	SLEB006	SL022	0-0.25	16	J
	SLFB001	NA		16	J
Acetone	SLTB006	NA	NA	12	J
	SLTB007	NA	NA	5	J
	SLTB008	NA	NA	9	J
	SLTB009	NA	NA	7	J
	SLTB010	NA	NA	4	J
	SLTB012	NA	NA	28	J
Chlorobenzene	SLEB001	SL035	0-0.25	14	
	SLEB002	SL035	0-0.25	14	
	SLEB003	SL100	0-0.25	16	
	SLEB004	SL083	0-0.25	7	
	SLEB005	SL074	0-0.25	4	J
	SLEB006	SL022	0-0.25	10	
	SLEB007	SL012	0-0.25	9	
	SLEB008	SL068	0-0.25	9	
Methylene chloride	SLEB006	SL022	0.25	53	
	SLFB001	NA	NA	15	
	SLTB	NA	NA	12	

Note: QC = quality control.
μg/ℓ = micrograms per liter.
SLEB = equipment rinsate blank designation.
SLTB = trip blank designation.
SLFB = field blank designation.
J = estimated value.
NA = not applicable.

SLEB07, respectively. Bis-(2-ethylhexyl) phthalate was detected in five of the eight equipment rinsate blanks at concentrations ranging from 2 to 16 μg/ℓ. Bis(2-ethylhexyl) phthalate is a common laboratory-derived contaminant.

Each of the equipment rinsate blank samples collected during the soil sampling events contained detectable concentrations of at least one of the TAL inorganics (Table 4-5). Concentrations of the following fourteen TAL inorganics were reported: aluminum, arsenic, barium, beryllium, calcium, chromium, copper, iron, lead, magnesium, potassium, sodium, vanadium, and zinc.

It should be noted that only concentrations of aluminum (SLEB - 64.6 μg/ℓ and SLEB008 - 49.8 μg/ℓ); iron (SEB002 - 23.8 μg/ℓ and SLEB008 - 25.5 μg/ℓ); and zinc (SLEB004 - 6 μg/ℓ, SLEB005 - 3.2 μg/ℓ, and SLEB006 - 5.7 μg/ℓ) were reported to exceed contract required detection limits (CRDLs).

Four radionuclides, gross alpha, gross beta, radium-226, and radium-228, were detected in rinsate samples during the soil sampling events (Table 4-6). With exception of SLEB005, the other equipment rinsate samples contained at least one one of the radionuclides. Pesticides, PCBs, dioxins, and furans were not detected in any of the rinsate blank samples collected during the soil sampling events.

4.1.2 Field Blank

The field blank is a sample of organic-free/deionized water that is opened to ambient air conditions onsite during the sampling event. The purpose of the field blank is to monitor ambient conditions that may contribute contamination (target constituents) to the samples. The field blanks were analyzed for the same target constituents as the soil samples.

Only one field blank sample (SLFB001) was collected as part of the soil sampling event. The field blank contained detectable concentrations of the following: VOCs, 2-butanone at 16 μg/ℓ and methylene chloride at 53 μg/ℓ; TAL inorganics, iron at 7 μg/ℓ and lead at 0.9 μg/ℓ; and radionuclides, gross alpha at 0.4 μg/ℓ and radium-226 at 0.04 μg/ℓ (Tables 4-3, 4-5, and 4-6). BNA, pesticide/PCB, dioxin, or furan compounds were not detected in the field blank sample.

4.1.3 Trip Blank

Trip blank samples are prepared at the laboratory prior to the sampling event and travel with the sample bottles to the site. The trip blank sample bottles are not opened at the site or anytime prior to laboratory analysis; however, it is similarly packaged and shipped accompanying the collected samples. The purpose of the trip blank is to assess the potential for contamination of samples via VOCs during sample bottle shipment and storage, prior to analysis. The trip blank samples were analyzed for only TCL volatile organic compounds. Six of the thirteen trip blank samples contained detectable concentrations of acetone, ranging from 5 μg/ℓ to 28 μg/ℓ. Only one trip blank sample contained detectable concentrations of methylene chloride (12 μg/ℓ). It should be noted that both of these compounds are common laboratory-derived contaminants.

Table 4-4
Summary of Positive Detections in Equipment Rinsate and Field Blanks
Semivolatile Compounds

NAS Jacksonville
Jacksonville, Florida

Semivolatile Organic Compounds	QC Sample Designation	QC Sample Taken Prior to Sample Location	Sample Depth (feet)	Concentration Detected in QC Blank (μg/ℓ)
Benzo(k)fluoranthene	SLEB006 RE	SL083	0-0.25	2 J
Chrysene	SLEB007	SL012	0-0.25	2 J
Pyrene	SLEB007	SL012	0-0.25	3 J
bis(2-Ethylhexyl) phthalate	SLEB005	SL074	0-0.25	5 J
	SLEB001	SL035	0-0.25	2 J
	SLEB002	SL100	4-6	4 J
	SLEB004	SL083	0-0.25	16
	SLEB006	SL022	0-0.25	8 J

Notes: QC = quality control.
μg/ℓ = micrograms per liter.
SLEB = equipment rinsate blank designation.
J = indicates estimated value.

Table 4-5
Summary of Positive Detections in Equipment Rinsate and Field Blanks
Inorganics

NAS Jacksonville
Jacksonville, Florida

Inorganic Compounds	QC Sample Designation	Sample Collected Prior to QC Sample: Sample Designation	Sample Collected Prior to QC Sample: Sample Depth (feet)	Concentration Detected in QC Sample (µg/ℓ)	
Aluminum	SLEB	SI040	7.5-8-5	64.6	J
	SLEB004	SL083	0-0.25	16.3	J
	SLEB005	SL074	0-0.25	18.8	J
	SLEB006	SL022	0-0.25	16.5	J
	SLEB008	SL068	0-0.25	49.8	J
Arsenic	SLEB003	SL100	4-6	0.8	J
Barium	SLEB005	SL074	0-0.25	0.42	J
	SLEB006	SL022	0-0.25	0.42	J
Beryllium	SLEB004	SL083	0-0.25	0.69	J
	SLEB005	SL074	0-0.25	0.43	J
	SLEB006	SL022	0-0.25	0.43	J
	SLEB008	SL068	0-0.25	0.69	J
Calcium	SLEB008	SL068	0-0.25	103	J
Chromium	SLEB	SL040	7.5-8.5	4.2	J
Copper	SLEB001	SL035	0-0.25	0.99	J
	SLEB002				
Iron	SLEB001	SL035	0-0.25	6.3	J
	SLEB002	SL035	0-0.25	23.8	J
	SLEB003	SL100	4-6	5.4	J
	SLEB008	SL068	0-0.25	25.5	J
	SLFB-01	NA	NA	7	J
Lead	SLEB001	SL035	0-0.25	0.9	J
	SLEB002	SL035	0-0.25	0.7	J
	SLEB005	SL074	0-0.25	1.1	J
	SLEB006	SL022	0-0.25	1.2	J
	SLEB008	SL068	0-0.25	1.2	J
	SLFB-01	NA	NA	0.9	J
Magnesium	SLEB008	SL068	0-0.25	37.1	J
Potassium	SLEB	SL040	7.5-8.5	241	J
Sodium	SLEB005	SL074	0-0.25	266	J
	SLEB008	SL068	0-0.25	66.4	J
Vanadium	SLEB005	SL074	0-0.25	1.4	J
Zinc	SLEB004	SL083	0-0.25	6	J
	SLEB005	SL074	0-0.25	3.2	J
	SLEB006	SL022	0-0.25	5.7	J
	SLEB007	SL012	0-0.25	1.8	J

Notes: QC = quality control.
µg/ℓ = micrograms per liter.
SLEB = equipment rinsate blank designation.
SLFB = field blank designation.
J = estimated concentration
NA = not applicable

Table 4-6
Summary of Positive Detections in Equipment Rinsate and Field Blanks
Radionuclides

NAS Jacksonville
Jacksonville, Florida

Radionuclide	QC Sample Designation	Sample Collected Prior to QC Sample		Concentration Detected in QC Sample (μg/ℓ)
		Sample Designation	Sample Depth (feet)	
Gross Alpha	SLEB001	SL035	0-0.25	0.1
	SLEB002			
	SLEB004	SL083	0-0.25	0.4
	SLEB006	SL022	0-0.25	1.9
	SLEB007	SL012	0-0.25	1.2
	SLFB	NA	NA	0.4
Gross Beta	SLEB003	SL100	4-6	0.1
	SLEB006	SL022	0-0.25	3.4
	SLEB007	SL012	0-0.25	0.8
Radium-226	SLEB007	SL012	0-0.25	0.4
	SLFB	NA	NA	0.4
Radium-228	SLEB003	SL100	4-6	0.7
	SLEB004	SL083	0-0.25	0.8

Notes: QC = quality control.
μg/ℓ = micrograms per liter.
SLEB = equipment rinsate blank.
SLFB = field blank.
NA = not applicable.

5.0 DATA VALIDATION

The analytical records generated by the subcontract laboratory, CH2M Hill of Gainesville, Florida, were validated (reviewed) by Heartland Environmental Services, Inc. (Heartland), of St. Peters, Missouri. The purpose of the data review is to provide an independent check of the data quality with respect to the analytical method requirements. Based on this review, data use restrictions (qualifiers) are made, if necessary, according to a unified approach, which uses control protocols in combination with technical expertise and professional judgment.

The review by Heartland was conducted in accordance with Level D Data Validation Guidelines as specified by NEESA in the Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Program, NEESA 20.2-047B, June 1988, and the USEPA's Functional Guidelines for Organics. Method-specific references were also used by Heartland as a basis of reviewing the data and applying data validation flags, except as specifically noted in review comments. The following is a description of the data qualifiers that were used by Heartland to indicate the data quality:

- U Indicates that a target constituent was not detected above the contract required quantitation limit (CRQL);

- J Indicates that (1) the analyte was present at an estimated value, but the reported value may not be accurate because the concentration detected was between the CRQL and the method detection limit (MDL), or (2) that the data "failed" some of the analytical validation criteria but not sufficient to reject the data, and (3) when combined with a U qualifier, the quantitation limit is estimated; and

- R Indicates that the data failed some of the analytical validation criteria and is not usable. Either re-analysis or resampling and analysis would be necessary to determine the presence or absence of the target analyte(s).

Summaries of the functional guidelines that were used in the data validation for the soil samples are provided in Appendix E-1 for VOCs, E-2 for BNAs, E-3 for pesticides/PCBs, E-4 for inorganic and cyanide, E-5 for dioxins and furans, and E-6 for radionuclides. The data validation summary provides a tabulation of some of the functional guidelines used for each sample delivery group (SDG) and associated samples and the rationale for the data qualifiers that were applied to some of the soil samples for each of the identified target compounds.

6.0 CHEMICAL ANALYTICAL RESULTS

6.1 CHEMICAL ANALYTICAL DATA SUMMARY

Overall, the chemical analytical data are acceptable; however, some of the data were qualified as unusable (R qualifier). Data usability will be addressed in the Preliminary Characterization Summary Report (PCSR). The data usability will be assessed by using the results of the data validation of the analytical method combined with the QC samples to evaluate the performance of the laboratory during the period in which the soil samples were analyzed. The QC samples include: method blanks, trip blanks, equipment rinsate blanks, laboratory control samples, surrogate spikes, matrix spike/matrix spike duplicates, and field duplicates. The QC samples will be evaluated in terms of precision, accuracy, representativeness, completeness, and comparability.

Precision is a measure of the reproducibility of analytical results under a given set of conditions. Accuracy is the nearness of a result to a true value. Representativeness is a qualitative parameters that expresses the degree to which the sample data are characteristic of a population, parameter variations at a sampling point, or an environmental condition. Completeness of analytical results is defined as the percentage of acceptable data relative to the number of tests conducted. Comparability of the analytical data is a qualitative assessment to determine if the analytical results are equivalent to data obtained from similar methods.

The purpose of evaluating data usability and validation of the analytical method is to address the qualification of the data in regards to evaluation of the presence, magnitude, and characteristics of hazardous substances at OU1. Additional data needs such as re-sampling, if required, for rejected data, confirmation of sampling of detected target constituents, background soil sample locations, or data needs for treatability and base line risk assessment also will be addressed in the PCSR.

6.2 CHEMICAL ANALYTICAL DATA EVALUATION

Analytical soil sampling results are contained in the summary tables in Appendices C-1 through C-7. Constituents detected above the CRQL or sample quantitation limit (SQL) are highlighted and bolded in each table. Preliminary, applicable, relevant and appropriate requirements (ARARs) consisting of FDER clean soil levels, Chapter 17-770 (May 1992) and USEPA preliminary remediation goals (PRGs) calculated using USEPA Risk Assessment Guidance for Superfund, December 1991 are provided at the top of each table, where available. Figures 6-1 through 6-5 show only those sample locations where soil concentrations exceed preliminary ARARs. Dioxins, furans, and radionuclides are not represented pictorially (although present in the summary tables) because background concentrations and ARARs have not been identified.

Determinations regarding data useability and interpretation are beyond the scope of this sampling event report. Further evaluations of the soil data, planned for the PCSR, will focus on data background concentration ranges, presence and extent of constituent contamination, and potential need for confirmation sampling.

It should be noted that a complete determination of data useability has not been conducted, and the ARARs selected may be revised. Therefore, assessment of the analytical results presented in Figures 6-1 through 6-5 and Appendices C-1 through C-6 is subject to change.

Based on ABB-ES' preliminary review of the constituents detected at concentrations above the CRQL, SQL, and ARARs, the following observations are noted:

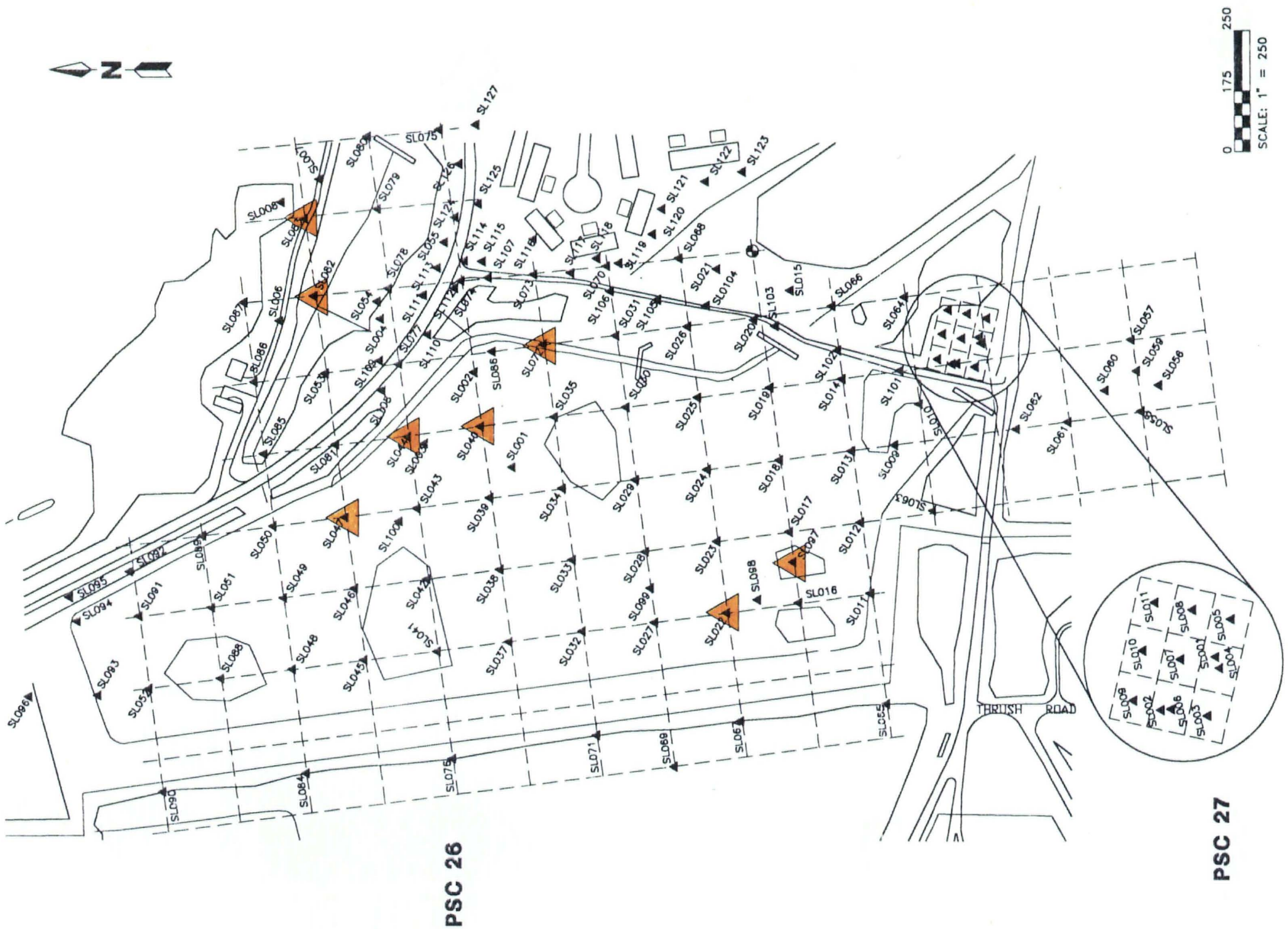
Volatile Organic Compounds. The total value, or the sum of volatile organic compound concentrations detected above the CRQL and SQL, exceed the 50 μg/kg clean soil level as defined by FDER Chapter 17-770 (May 1992), at soil sampling locations SL022 (2 to 4 feet), SL040 (7.5 to 8.5 feet), SL044 (7 to 9 feet), SL047 (3 to 5 feet), SL072 (0 to 3 inches), SL082 (3 to 5 feet), SL083 (5 to 7 feet), and SL097 (1 to 3 feet) (see Appendix C-1 for specific constituent concentrations and Figure 6-1 for locations). None of the individual volatile organic compounds exceed the USEPA preliminary, residential, remediation goals (PRGs) calculated in accordance with USEPA risk assessment guidance (RAGS) for Superfund sites at either the 10^{-6} risk or index factor of 1 (December 1991).

Semivolatile Organic Compounds. Semivolatile organic compound concentrations did not exceed any of the PRGs calculated in accordance with USEPA RAGS sites at either the 10^{-6} risk or index factor of 1 (December 1991). Currently, there are no FDER soil action levels for semivolatile organic compounds other than those for polynuclear aromatic hydrocarbons (PAH), which are discussed below.

Polynuclear Aromatic Hydrocarbons. Total PAH values were summed from individual sample concentrations listed on pages C-2-6, C-2-7, C-2-13, C-2-14, C-2-20, C-2-21, C-2-27, and C-2-28 of the semivolatile organic summary tables (Appendix C-2). Total PAH exceed the 6,000 μg/kg clean soil level defined by FDER Chapter 17-770 (May 1992) at soil sampling locations SL013 (2 to 4 feet), SL034 (9 to 11 feet), SL035 (9 to 11 feet), SL040 (9 to 11 feet), SL041 (3 to 4 feet), SL044 (7 to 9 feet), SL047 (3 to 5 feet), SL072 (0 to 3 inches), and SL099 (5 to 7 feet) (see Appendix C-2 for specific constituent concentrations and Figure 6-2 for locations). Individual PAH concentrations did not exceed any USEPA PRGs under RAGS. Several soil sampling locations yielded low level PAH concentrations ranging between 40 μg/kg and 6,000 μg/kg. Further ecological and human health risk evaluation will serve to define the significance or health threat due to the PAH concentrations in soil.

Pesticides. Concentrations of pesticides 4,4-DDE and 4,4-DDT exceed the calculated USEPA PRG of 1,900 μg/kg at soil sampling location SL069 (0 to 3 inches). Concentrations of 4,4-DDT exceeded the USEPA Region III 10^{-6} residential risk of 5,000 μg/kg (Smith, 1992) at soil sampling locations SL120 (0 to 3 inches) and SL067 (0 to 3 inches). Although not included in the analytical summary table in Appendix C-3, the Region III risk-based concentrations are provided in Figure 6-3 as an additional comparison for data evaluation.

Concentrations of the pesticide Aldrin exceed the calculated USEPA PRG of 38 μg/kg, at soil sampling locations SL039 (10 to 12 feet), SL040 (9 to 11 feet), SL043 (5 to 7 feet), and SL047 (3 to 5 feet).



LEGEND

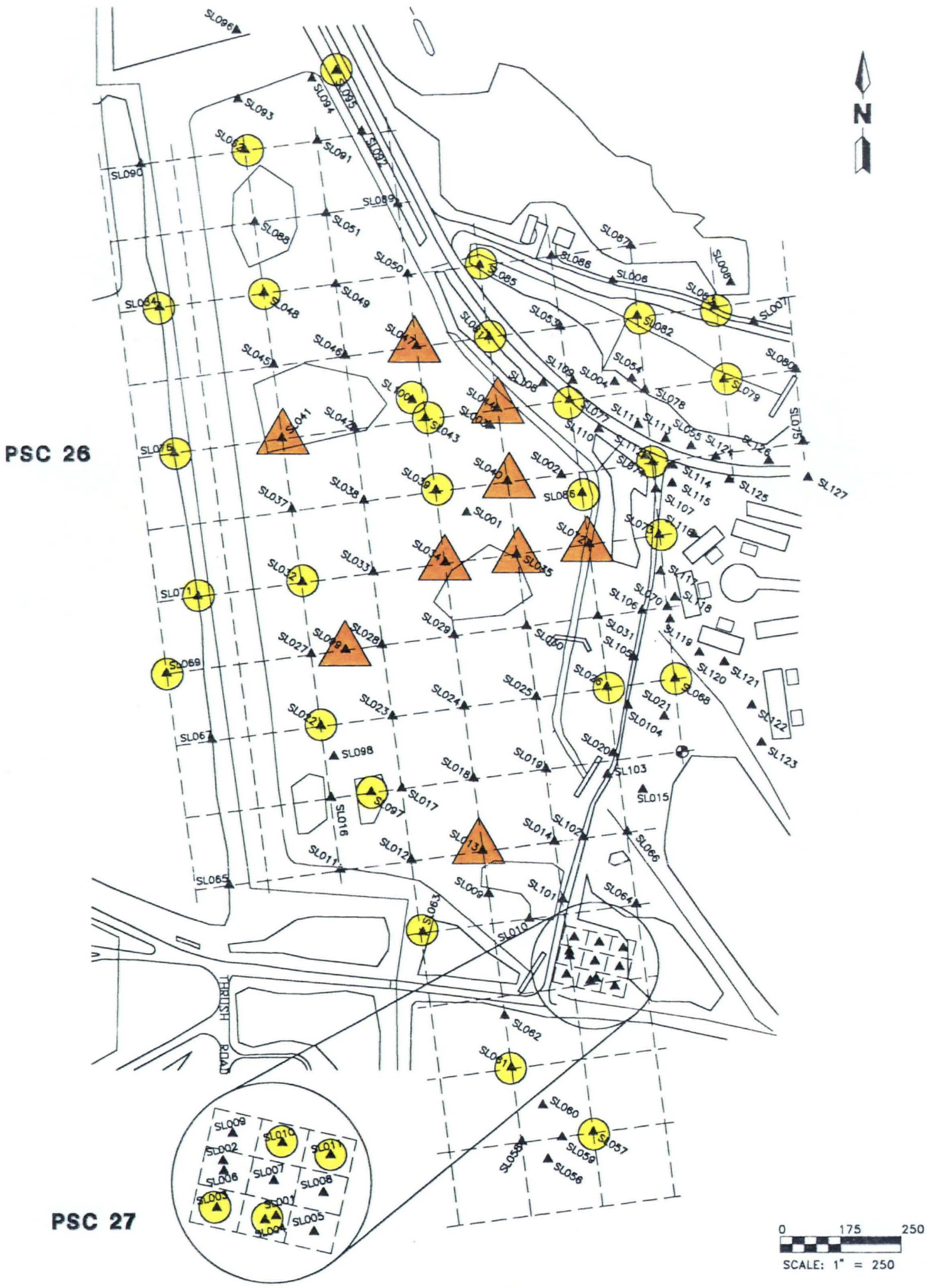
- BENCHMARK
- SOIL SAMPLE LOCATION
- TOTAL VOLATILE ORGANIC COMPOUNDS > 50 ug/Kg*

*NOTE: FDER 17:1775 CLEAN SOIL LEVEL, MAY 1992.

FIGURE 6-1
VOLATILE ORGANIC COMPOUNDS IN SOIL

SAMPLING EVENT REPORT NUMBER 12-SOIL OU1

NAS JACKSONVILLE
JACKSONVILLE, FLORIDA



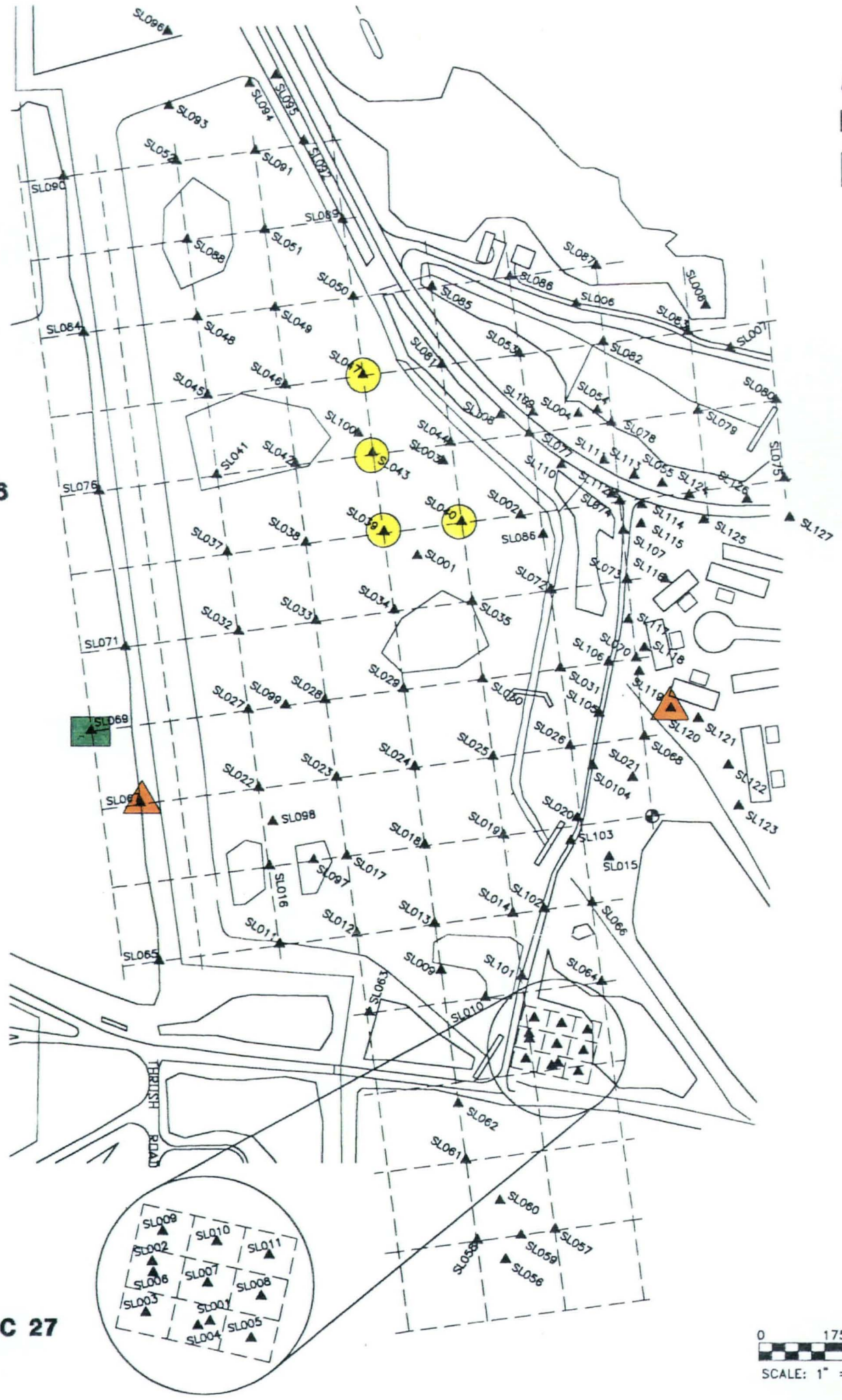
LEGEND

- BENCHMARK
- SOIL SAMPLE LOCATION
- PAH > 40 ug/Kg < 6000 ug/Kg FDER 17:775*
- PAH > 6000 ug/Kg FDER 17:775 FOR POLYNUCLEAR AROMATIC HYDROCARBONS*

* NOTE: FDER 17:775 CLEAN SOIL LEVEL, MAY 1992.

FIGURE 6-2
SEMI-VOLATILE ORGANIC COMPOUNDS IN SOIL

SAMPLING EVENT REPORT
NUMBER 12-SOIL OU1
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA



LEGEND

- BENCHMARK
- SOIL SAMPLE LOCATION
- >38 ug/Kg EPA PRG FOR ALDRIN*
- >1900 ug/Kg FOR 4,4-DDE OR 4,4-DDT*
- >5000 ug/Kg FOR 4,4-DDT**

Note:
*EPA PRELIMINARY REMEDIATION GOAL, DEC, 1991.
**EPA REGION III RISK BASED CONCENTRATION FOR 10^{-6} CANCER RISK.

FIGURE 6-3
PESTICIDES IN SOIL

SAMPLING EVENT REPORT
NUMBER 12-SOIL OU1
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

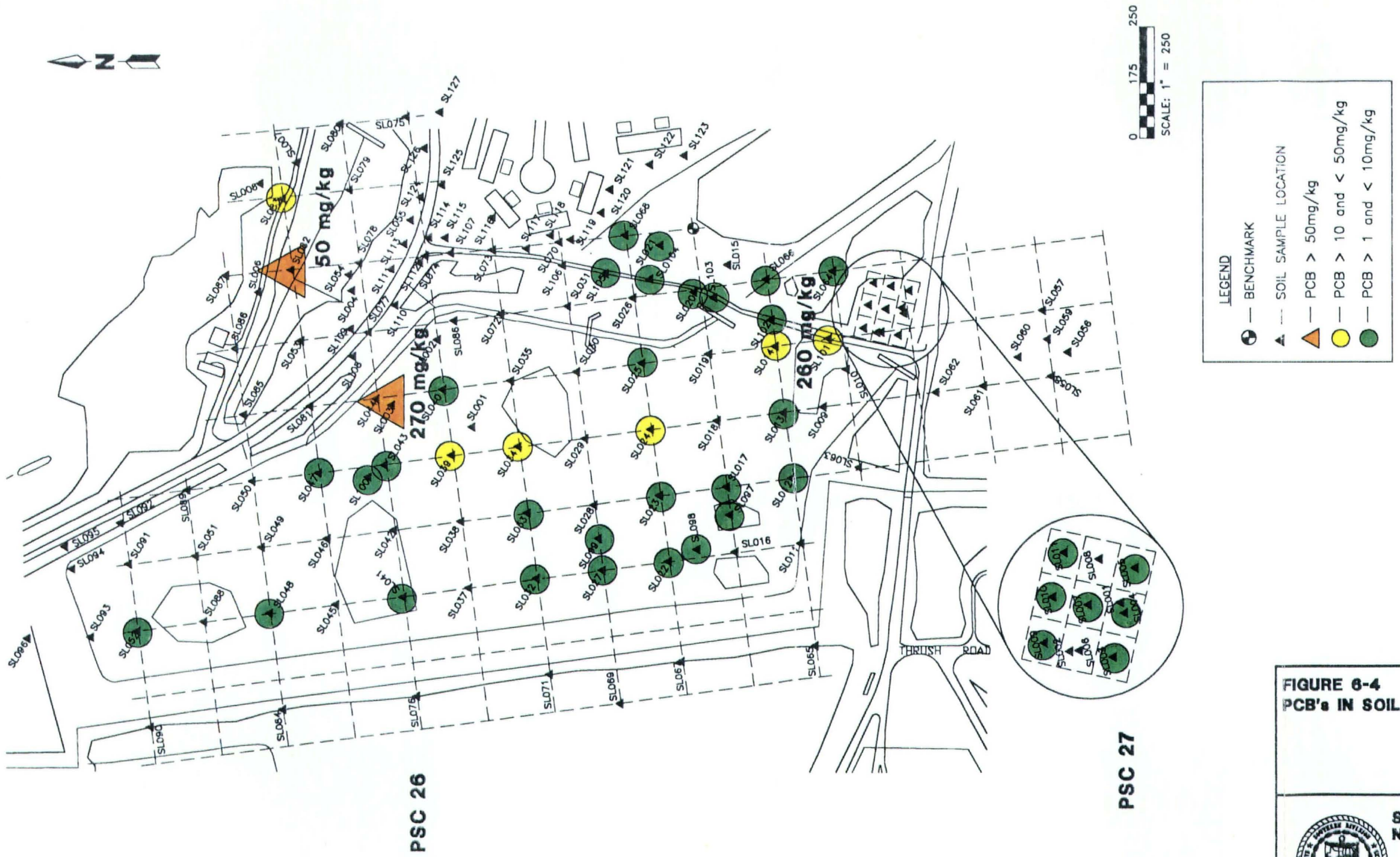
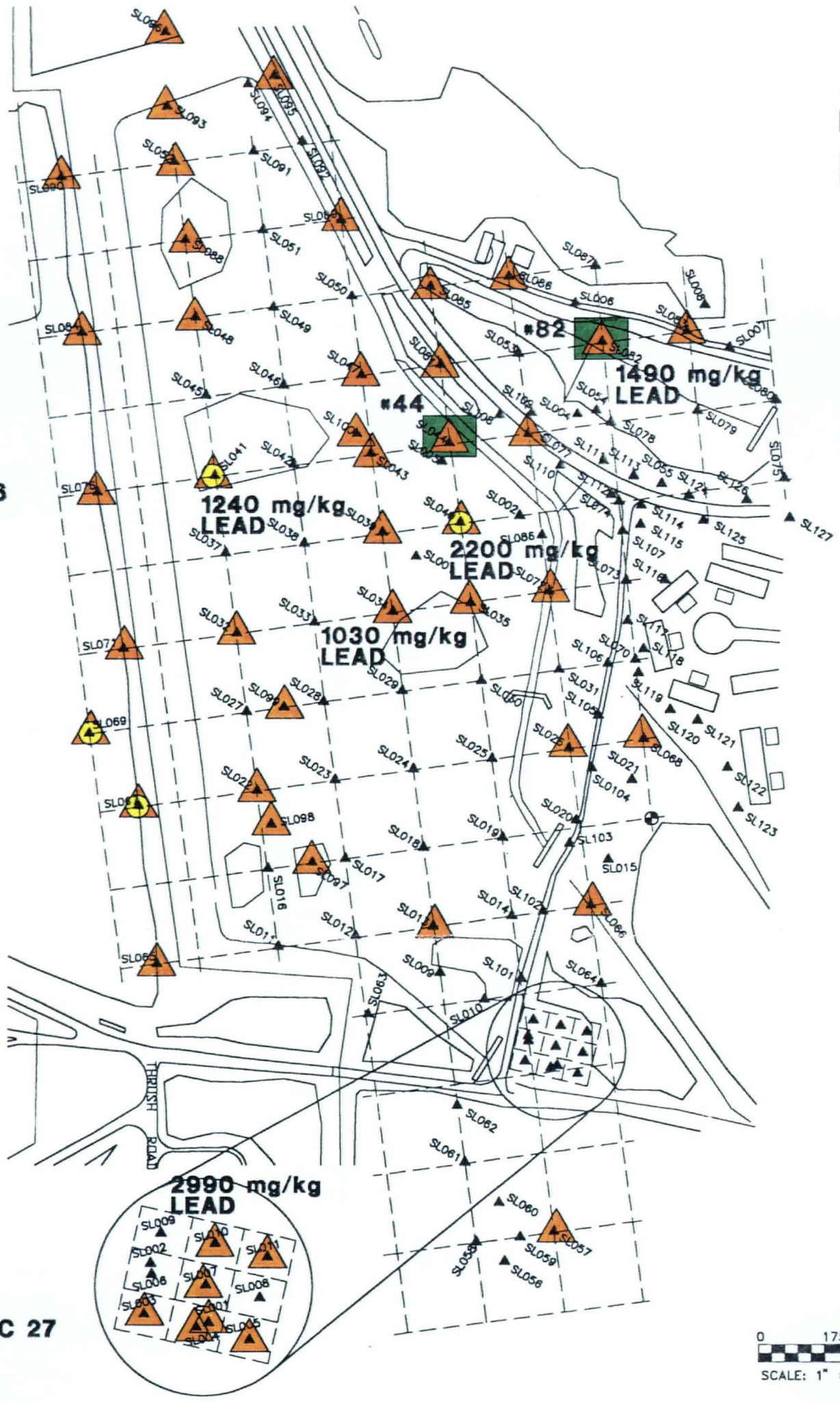


FIGURE 6-4
PCB's IN SOIL

SAMPLING EVENT REPORT
NUMBER 12-SOIL OU1

NAS JACKSONVILLE
JACKSONVILLE, FLORIDA



LEGEND

- BENCHMARK
- SOIL SAMPLE LOCATION
- LEAD– > 77 mg/kg*
- CHROMIUM– > 275 mg/kg*
- CADMIUM– > 55 mg/kg*

* NOTE: FDER 17:775 CLEAN SOIL LEVEL, MAY 1992.

FIGURE 6-5
INORGANIC COMPOUNDS IN SOIL

SAMPLING EVENT REPORT
NUMBER 12-SOIL OU1
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

Polychlorinated Biphenyls (PCBs). PCB concentrations exceeded the 83 μg/kg PRG defined by USEPA under the risk assessment guidelines in 130 instances at soil sampling locations identified in Appendix C-3. The primary Aroclors exceeding the PCB PRGs were Aroclors 1254 and 1260. Due to the number of positive detections, a list of those locations yielding greater than 83 μg/kg is not duplicated in this section of text. Figure 6-4 shows the ranges of PCB concentrations from 100 to 1,000 μg/kg, 1,000 to 50,000 μg/kg, and greater than 50,000 μg/kg for ease of readability. PCB concentrations exceed the soil action level of 10,000 μg/kg defined by USEPA (August 1990) at soil sampling locations SL014 (0 to 3 inches), SL024 (0 to 3 inches), SL034 (9 to 11 feet), SL039 (10 to 12 feet), SL044 (7 to 9 feet), SL082 (0 to 3 inches), SL083 (0 to 3 inches), SL101 (0 to 3 inches), and SL102 (0 to 3 inches).

Inorganics.

Lead: Twenty-six soil sampling locations yielded lead concentrations exceeding the FDER Chapter 17-770 (May 1992) clean soil level of 77 mg/kg at surface depths of 0 to 3 inches (see Figure 6-5 and Appendix C-4 for specific sample locations and constituent concentrations, respectively). Nine soil sampling locations yielded lead concentrations exceeding the FDER Chapter 17-770 clean soil level of 77 mg/kg, at depths ranging from 1 to 4 feet bls. Thirteen soil sampling locations yielded lead concentrations exceeding 77 mg/kg at depths ranging from 4 to 12 feet bls. The highest lead levels were found in soil sampling locations SL034 (9 to 11 feet: 1,030 mg/kg), SL040 (7.5 to 8.5 feet: 2,200 mg/kg), SL041 (3 to 4 feet: 1,240 mg/kg), SL082 (0 to 3 inches: 1,490 mg/kg), and in PSC 27, SL010 (0 to 3 inches: 2,990 mg/kg). There are no preliminary remediation goals for lead under the USEPA RAGS at the current time. Further evaluation planned for the PCSR will address ranges for ambient background levels of lead in soil.

Barium: Barium concentrations exceeded the FDER Chapter 17-770 clean soil level of 2,750 μg/kg in soil sampling location SL040 (7.5-8.5 feet). None of the samples collected exceeded the USEPA PRG of 1.35. The location where barium was detected is not shown on Figure 6-5.

Cadmium: Cadmium concentrations exceeded the FDER Chapter 17-770 clean soil level of 55 μg/kg in soil sampling locations SL040 (9 to 11 feet), SL041 (3 to 4 feet), SL067 (0 to 3 feet), and SL069 (0 to 3 inches). None of the samples collected exceeded the USEPA PRG of 135,000 μg/ℓ (135 mg/kg) for cadmium.

Chromium: Chromium concentrations exceeded the FDER Chapter 17-770 clean soil level of 275 mg/kg in soil sampling location SL044 (7 to 9 feet). None of the samples collected exceeded the USEPA calculated PRG of 135,000 μg/ℓ (135 mg/kg) for chromium.

Dioxin and Furans. There are currently no FDER or USEPA soil action levels for dioxins and furans in soil (Appendix C-5 contains summary with tables for dioxin and furan laboratory results). Further evaluation of background concentrations, along with ecological and human health risks, will serve to define the significance and/or threat due to any positive detections of these compounds in soil.

Radionuclides. There are currently no FDER or USEPA soil action levels for radionuclides in soil (Appendix C-6 contains summary tables with radionuclide laboratory results). Further evaluation of background concentrations, along with ecological and human health risks, will serve to define the significance and/or health threat due to any positive detections of the radionuclides in soil.

GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
ARARs	applicable, relevant, and appropriate requirements
ASTM	American Society for Testing Materials
BFB	bromofluorobenzene
bls	below land surface
BNA	base neutral acids
BS/BSD	blank spike/blank spike duplicate
CLP	Contract Laboratory Program
ComQAP	Comprehensive Quality Assurance Plan
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limits
D	diluted
DFTPP	decafluorotriphenylphosphine
DQOs	data quality objectives
E	linear range
EICP	Extracted Ion Current Profile
FDER	Florida Department of Environmental Regulation
FOL	Field Operations Leader
FSP	Field Sampling and Analysis Plan
GC/MS	gas chromatograph/mass spectrometer
Heartland	Heartland Environmental Services, Inc.
IDL	Instrument Detection Limit
IS	Internal Standards
LCSs	laboratory control samples
LL	lower acceptance limit
MDL	method detection limit
MS/MSDs	matrix spike/matrix spike duplicates
MSA	Matrix Spike Sample Analysis
NEESA	Naval Energy and Environmental Support Activity
OU	Operable Unit
OVA	organic vapor analyzer
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCBs	polychlorinated biphenyls

ppm	parts per million
PRGs	preliminary remediation goals
PSC	potential source of contamination
PCSR	Preliminary Characterization Summary Report
%Ds	Percent Differences
%R	Percent Recovery
%RSDs	Percent Relative Standard Deviations
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
QC	Quality Control
R	rejected
RAGS	Risk Assessment Guidelines for Superfund
RI/FS	Remedial Investigation/Feasibility Study
RI	remedial investigation
RPD	relative percent difference
RRFs	Relative Response Factors
SDG	sample delivery group
SOW	Statement of Work
SQL	sample quantitation limit
TAL	target analyte list
TCL	target compound list
TICs	tentatively identified compounds
UL	upper acceptance limit
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compounds
VTSR	validated time of sample receipt

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Appendix A
Soil Boring Lithologic Logs

TITLE. NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL. J26-SL011	BORING NO. J26-SL011
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO. 7555-09
CONTRACTOR. Groundwater Protection		DATE STARTED. 3/8/92	COMPLTD. 3/8/92
METHOD: SSA	CASE SIZE. N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT.	DPTH TO ∇ N/A FT
LOGGED BY: R.W. Holloway	WELL DEVELOPMENT DATE. N/A		SITE. OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				4 200 120 0	SILTY SAND Black, fine to very fine grained, well sorted, some iron oxide staining, visible black staining between 2'-4' with debris fragments		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL011	BORING NO. J26-SL011
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED. 3/8/92	COMPLTD: 3/8/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT.	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT.
LOGGED BY: R Holloway	WELL DEVELOPMENT DATE. N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				4	SILTY SAND Black,fine to very fine grained,well sorted,some iron oxide staining between 2'-4' with debris fragments.		SM		
				200					
				120					
				0					
5									
10									
15									
20									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J26-SL013	BORING NO. J26-SL013
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/7/92	COMPLTD: 3/7/92
METHOD: SSA	CASE SIZE. N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.. N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT.
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Dark olive gray, fine to very fine grained, well-sorted, some organics.		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL022	BORING NO. J26-SL022
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED: 3/8/92	COMPLTD. 3/8/92
METHOD: SSA	CASE SIZE. N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT
LOGGED BY: R.W. Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Black, fine to very fine grained, well-sorted, some iron oxide staining, visible black staining between 2'-4' with debris fragments		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	**LOG of WELL:** J26-SL024	**BORING NO.** J26-SL024
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		**PROJECT NO:** 7555-09
CONTRACTOR: Groundwater Protection	**DATE STARTED:** 3/8/92	**COMPLTD:** 3/8/92
METHOD: SSA	**CASE SIZE.** N/A	**SCREEN INT.:** N/A	**PROTECTION LEVEL.** D
TOC ELEV.: N/A FT	**MONITOR INST.:** OVA	**TOT DPTH:** 4FT	**DPTH TO ▽** N/A FT
LOGGED BY: R W Holloway	**WELL DEVELOPMENT DATE:** N/A	**SITE:** OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0 12 150	SILTY SAND. Black, fine to very fine grained, well-sorted, some iron oxide staining, visible black staining between 2'-4' with debris fragments.		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J26-SL026	BORING NO. J26-SL026
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED. 3/8/92	COMPLTD. 3/8/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.. N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT.	MONITOR INST.: OVA	TOT DPTH: 4FT.	DPTH TO ∇ N/A FT.
LOGGED BY. R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE. OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Light gray, fine to very fine grained, well-sorted, slight iron oxide staining.		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL. J26-SL032	BORING NO. J26-SL032
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED: 3/9/92	COMPLTD: 3/9/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT	MONITOR INST.. OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT.
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Dark gray, fine to very fine grained, well-sorted, abundance of debris between 6"-4'.		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL034	BORING NO. J26-SL034
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR. Groundwater Protection	DATE STARTED: 3/3/92	COMPLTD: 3/3/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.. N/A FT	MONITOR INST.: OVA	TOT DPTH: 15FT.	DPTH TO ▽ 11 FT
LOGGED BY: R Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Black, fine grained, well sorted, iron oxide staining between 10'-12'.		SP		
				4					
				0					
5									
10									▽
					CLAYEY SILT. Black, sandy, slight plasticity.		ML		
15									
20									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL034		BORING NO. J26-SL034
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/3/92	COMPLTD: 3/3/92
METHOD. SSA	CASE SIZE. N/A	SCREEN INT.. N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 15FT.	DPTH TO ▽ 11 FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE. N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Black, fine grained, well-sorted, iron oxide staining between 10'-12'		SM		
				4					
5				0					
10									▽
					CLAYEY SILT, Black sandy,slightly plastic		ML		
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL		**LOG of WELL:** J26-SL035	**BORING NO.** J26-SL035
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			**PROJECT NO:** 7555-09
CONTRACTOR: Groundwater Protection		**DATE STARTED.** 3/4/92	**COMPLTD:** 3/4/92
METHOD. SSA	**CASE SIZE:** N/A	**SCREEN INT..** N/A	**PROTECTION LEVEL:** D
TOC ELEV.: N/A FT	**MONITOR INST.:** OVA	**TOT DPTH:** 15FT	**DPTH TO ▽** 11.5 FT
LOGGED BY. R W Holloway	**WELL DEVELOPMENT DATE.** N/A		**SITE:** OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SAND. Black, fine to very fine grained, well-sorted, debris fragments , visible black staining, slight odor.		SM		
5									
				30					
				280					
				100					
				70					
10				400					
				130					
				0					
					CLAYEY SILT Black, sandy, slight plasticity, visible black staining, slight odor		ML		
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J26-SL039	BORING NO. J26-SL039
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO. 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/4/92	COMPLTD: 3/4/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.. N/A FT	MONITOR INST.: OVA	TOT DPTH: 15FT	DPTH TO ▽ 12.5 FT.
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Black, fine grained, well-sorted, visible black staining, slight odor.		SM		
5									
10				48					
				200					
				130					▽
15					CLAYEY SILT. Black, sandy, slight plasticity, visible black staining, slight odor		ML		
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J26-SL040	BORING NO. J26-SL040
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR. Groundwater Protection		DATE STARTED: 3/4/92	COMPLTD: 3/4/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH. 15FT.	DPTH TO ▽ 11 FT.
LOGGED BY: R.W. Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Very dark grayish brown, fine grained, well-sorted, debris fragments		SM		
5									
10				70 30 3000 0	CLAYEY SILT Dark gray, sandy, iron oxide staining, slight plasticity, visible black staining between 10'-13'		ML		
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL. J26-SL041	BORING NO. J26-SL041
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED: 3/9/92	COMPLTD: 3/9/92
METHOD: SSA	CASE SIZE. N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.. OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT.
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Dark gray, fine to very fine grained, well-sorted, abundance of debris between 6"-4'		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL. J26-SL043	BORING NO. J26-SL043
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/4/92	COMPLTD: 3/4/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 15FT	DPTH TO ▽ 7 FT
LOGGED BY: R W. Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Gray, fine to very fine grained, well-sorted, debris fragments, visible black staining between 5'-10', becoming more clayey towards bottom.		SM		▽
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL044		BORING NO. J26-SL044
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED. 3/4/92	COMPLTD: 3/4/92
METHOD: SSA	CASE SIZE. N/A	SCREEN INT.. N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT	MONITOR INST.. OVA	TOT DPTH: 15FT.	DPTH TO ▽ 9 FT.
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE. OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Black, fine to very fine grained, well-sorted, debris fragments, visible black staining, slight odor		SM		
				5					
				35					
				20					
				700					
5				250					
				1500					
				2500					
				800					▽
				3200					
10				900					
				0	CLAYEY SILT Black, sandy, slight plasticity		ML		
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL047	BORING NO. J26-SL047
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED: 3/4/92	COMPLTD: 3/4/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 15FT	DPTH TO ∇ 5 FT
LOGGED BY: R.W. Holloway	WELL DEVELOPMENT DATE. N/A	SITE. OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Black, fine grained, well-sorted, debris fragments, visible black staining, slight odor between 2'-5'.		SM		
				120					
				280					
5				330					∇
				20					
				20					
				15					
				10					
10				0	CLAYEY SAND. Dark gray, clayey, saturated		SC		
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL. J26-SL048	BORING NO. J26-SL048
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED: 3/9/92	COMPLTD: 3/9/92
METHOD. SSA / CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT / MONITOR INST.: OVA	TOT DPTH: 3FT	DPTH TO ▽ 2 FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Dark gray, fine to very fine grained, well-sorted, organic.		SM		▽
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL050	BORING NO. J26-SL050
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED: 3/8/92	COMPLTD: 3/8/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT.	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE. N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SAND. Black, fine to very fine grained, well-sorted, debris fragments, visible black staining		SM		
				16 25	CLAYEY SILT. Red, sandy, slight plasticity.		ML		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL052	BORING NO. J26-SL052
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED: 3/8/92	COMPLTD: 3/8/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.. N/A FT	MONITOR INST.: OVA	TOT DPTH: 2FT	DPTH TO ∇ 2 FT
LOGGED BY. R W Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0 100	SILTY SAND. Black, fine to very fine grained, well-sorted, debris fragments, visible black staining at 2'.		SM		∇
5									
10									
15									
20									
25									
30									

TITLE: NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J26-SL053	BORING NO. J26-SL053
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/7/92	COMPLTD: 3/7/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.. OVA	TOT DPTH: 10FT	DPTH TO ▽ 6 FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Light gray, fine to very fine grained, well-sorted, some iron oxide staining, becoming more clayey towards bottom.		SM		
5									▽
				6					
				0					
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL. J26-SL066	BORING NO. J26-SL066
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED. 3/8/92	COMPLTD: 3/8/92
METHOD. SSA	CASE SIZE. N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT
LOGGED BY. R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Black, fine to very fine grained, well-sorted, some organics SAND. Light gray, fine to very fine grained, well-sorted.		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL072	BORING NO. J26-SL072
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED. 3/7/92	COMPLTD: 3/7/92
METHOD: SSA	CASE SIZE. N/A	SCREEN INT.. N/A	PROTECTION LEVEL: D
TOC ELEV.. N/A FT	MONITOR INST.: OVA	TOT DPTH: 10FT	DPTH TO ▽ 6 5 FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Very dark grayish brown, fine to very fine grained, well- sorted, some iron oxide staining, light amounts of debris.		SM		
5									▽
				12					
				5					
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J26-SL073	BORING NO. J26-SL073
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR. Groundwater Protection		DATE STARTED. 3/7/92	COMPLTD: 3/7/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT.	MONITOR INST.: OVA	TOT DPTH: 10FT	DPTH TO ▽ 6 FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Light gray, fine to very fine grained, well-sorted.		SM		
5					CLAYEY SILT. Dark red, sandy, slight plasticity.		ML		▽
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J26-SL074	BORING NO. J26-SL074
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/7/92	COMPLTD. 3/7/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.. N/A FT.	MONITOR INST.. OVA	TOT DPTH: 8FT	DPTH TO ▽ 6 5 FT.
LOGGED BY: R.W. Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Light gray, fine to very fine grained, well sorted.		SM		
5					CLAYEY SILT. Dark red, sandy, slight plasticity.		ML		▽
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL077		BORING NO. J26-SL077
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/7/92	COMPLTD. 3/7/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 10FT	DPTH TO ▽ 4.5 FT
LOGGED BY. R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Light gray, fine to very fine grained, well-sorted, some iron oxide staining, becoming more clayey towards bottom		SM		
				18					▽
5				380					
				22					
				55					
				1500					
				150					
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	**LOG of WELL:** J26-SL079	**BORING NO.** J26-SL079
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM		**PROJECT NO:** 7555-09
CONTRACTOR: Groundwater Protection	**DATE STARTED:** 3/6/92	**COMPLTD:** 3/6/92
METHOD: SSA	**CASE SIZE:** N/A	**SCREEN INT.:** N/A	**PROTECTION LEVEL:** D
TOC ELEV.: N/A FT	**MONITOR INST.:** OVA	**TOT DPTH:** 10FT	**DPTH TO ▽** 8 FT.
LOGGED BY: R.W Holloway	**WELL DEVELOPMENT DATE:** N/A	**SITE:** OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Light gray, fine to very fine grained, well-sorted.		SM		
5									
					CLAYEY SILT Dark red, sandy, slight plasticity				
				5					
				0			ML		▽
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL		**LOG of WELL:** J26-SL081	**BORING NO.** J26-SL081
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			**PROJECT NO:** 7555-09
CONTRACTOR: Groundwater Protection		**DATE STARTED:** 3/7/92	**COMPLTD:** 3/7/92
METHOD: SSA	**CASE SIZE:** N/A	**SCREEN INT.:** N/A	**PROTECTION LEVEL:** D
TOC ELEV.: N/A FT	**MONITOR INST.:** OVA	**TOT DPTH:** 10FT	**DPTH TO ∇** 5 FT
LOGGED BY: R W Holloway	**WELL DEVELOPMENT DATE:** N/A		**SITE:** OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Very dark gray, fine grained, well-sorted, some debris fragments between 2'-4'.		SM		
5									∇
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL082	BORING NO. J26-SL082
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR. Groundwater Protection	DATE STARTED: 3/6/92	COMPLTD: 3/6/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT.	MONITOR INST.: OVA	TOT DPTH: 10FT	DPTH TO ▽ 4 5 FT.
LOGGED BY: R.W. Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				5	SILTY SAND. Light gray, fine to very fine grained, well-sorted		SM		
				10					
				1500					
				1500					
				1000					▽
5				50					
				0	CLAYEY SILT Light gray, sandy, slight plasticity.		ML		
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	**LOG of WELL:** J26-SL099	**BORING NO.** J26-SL099
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM		**PROJECT NO:** 7555-09
CONTRACTOR. Groundwater Protection	**DATE STARTED:** 3/5/92	**COMPLTD:** 3/5/92
METHOD: SSA	**CASE SIZE.** N/A / **SCREEN INT.:** N/A	**PROTECTION LEVEL:** C
TOC ELEV.: N/A FT	**MONITOR INST.:** OVA / **TOT DPTH.** 10FT	**DPTH TO ∇** 7 FT.
LOGGED BY: R W Holloway	**WELL DEVELOPMENT DATE.** N/A	**SITE:** OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SAND Black, fine grained, well-sorted, visible black staining, slight odor, debris fragments.		SP		
				60					
				65					
				220					
				270					
5				90					
				260					∇
				125					
				30					
10									
15									
20									
25									
30									

TITLE. NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J26-SL087	BORING NO. J26-SL087
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/8/92	COMPLTD. 3/8/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.. N/A FT	MONITOR INST.: OVA	TOT DPTH: 3FT	DPTH TO ▽ N/A FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Black, fine to very fine grained, highly organic (top soil)		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL. J26-SL096	BORING NO. J26-SL096
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR. Groundwater Protection	DATE STARTED: 3/6/92	COMPLTD. 3/6/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.. OVA	TOT DPTH: 10FT.	DPTH TO ∇ 5 FT
LOGGED BY: R.W Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Light gray, fine to very fine grained, well-sorted.		SMSP		
5									∇
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL097		BORING NO. J26-SL097
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/5/92	COMPLTD: 3/5/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: C
TOC ELEV.: N/A FT.	MONITOR INST.. OVA	TOT DPTH: 12FT.	DPTH TO ▽ 10 FT.
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				150	SILTY SAND. Black, fine grained, well-sorted, visible black staining, slight odor, debris fragments.		SM		
				1400					
				10					
				70					
				250					
5				25					
				500					
				70					
				450	SILTY SAND. Olive gray, fine to silty, moist.				
				100					
10				50					▽
				18	CLAYEY SILT. Mottled, sandy, some iron oxide staining.		ML		
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL. J26-SL098		BORING NO. J26-SL098
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/5/92	COMPLTD: 3/5/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.. N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 10FT	DPTH TO ▽ 9 5 FT
LOGGED BY: R.W. Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				10	SILTY SAND. Black, fine grained, well-sorted, visible black staining, slight odor, debris fragments		SM		
				0					
				1700					
				2000					
				250					
5				100					
				1800					
				2000					
				2500					
				100					▽
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J26-SL099		BORING NO. J26-SL099
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/5/92	COMPLTD: 3/5/92
METHOD: SSA	CASE SIZE. N/A	SCREEN INT.. N/A	PROTECTION LEVEL. C
TOC ELEV.: N/A FT.	MONITOR INST.: OVA	TOT DPTH: 10FT.	DPTH TO ▽ 7 FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE. OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Black, fine grained, well-sorted, visible black staining, slight odor, debris fragments.		SM		
				60					
				65					
				220					
				270					
5				90					
				260					
				125					▽
				30					
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J26-SL100	BORING NO. J26-SL100
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO. 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/5/92	COMPLTD. 3/5/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL. D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 10FT	DPTH TO ▽ 6 FT
LOGGED BY: R W HOLLOWAY	WELL DEVELOPMENT DATE:		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Dark reddish brown, well-sorted, highly organic between 2'-4' some visible black staining, light amounts of debris		SM		
				70					
5				25					▽
				10					
				0	SILTY SAND Pale olive, well-sorted, wet, some black staining				
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL. J27-SL001		BORING NO. J27-SL001
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/8/92	COMPLTD: 3/8/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT.	DPTH TO ▽ N/A FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Dark brown, fine to very fine grained, well-sorted.		SM		
					SILTY SAND. As above, reddish brown				
					SILTY SAND. As above, light gray				
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL. J27-SL002	BORING NO. J27-SL002
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED. 3/8/92	COMPLTD: 3/8/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A	SITE. OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Tan, fine to very fine grained, well-sorted		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J27-SL003	BORING NO. J27-SL003
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED: 3/8/92	COMPLTD. 3/8/92

METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT.	MONITOR INST.. OVA	TOT DPTH. 4FT.	DPTH TO ▽ N/A FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Tan, fine to very fine grained, well-sorted		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL: J27-SL004	BORING NO. J27-SL004
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR. Groundwater Protection		DATE STARTED. 3/8/92	COMPLTD: 3/8/92
METHOD: SSA	CASE SIZE. N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT.	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ∇ N/A FT
LOGGED BY: R W. Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				1	SILTY SAND Dark brown, fine to very fine grained, well-sorted		SM		
				0					
					SILTY SAND As above, reddish brown				
					SILTY SAND As above, light gray.				
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J27-SL005	BORING NO. J27-SL005
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED. 3/8/92	COMPLTD: 3/8/92
METHOD: SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.. OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT
LOGGED BY: R W Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Dark brown, fine to very fine grained, well-sorted		SM		
					SILTY SAND. As above, reddish brown.				
					SILTY SAND. As above, light gray				
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL. J27-SL006	BORING NO. J27-SL006
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED: 3/8/92	COMPLTD: 3/8/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT
LOGGED BY: R W. Holloway	WELL DEVELOPMENT DATE: N/A		SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Tan, fine to very fine grained, well-sorted.		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	**LOG of WELL:** J27-SL007	**BORING NO.** J27-SL007
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM		**PROJECT NO:** 7555-09
CONTRACTOR: Groundwater Protection	**DATE STARTED:** 3/8/92	**COMPLTD:** 3/8/92

METHOD: SSA	**CASE SIZE:** N/A	**SCREEN INT.:** N/A	**PROTECTION LEVEL:** D
TOC ELEV.: N/A FT.	**MONITOR INST.:** OVA	**TOT DPTH:** 4FT.	**DPTH TO ▽** N/A FT.
LOGGED BY: R.W. Holloway	**WELL DEVELOPMENT DATE.** N/A		**SITE:** OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Dark brown, fine to very fine grained, well-sorted.		SM		
					SILTY SAND. As above, reddish brown				
					SILTY SAND As above, light gray.				
5									
10									
15									
20									
25									
30									

TITLE. NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL: J27-SL008	BORING NO. J27-SL008
CLIENT. SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7555-09
CONTRACTOR. Groundwater Protection	DATE STARTED. 3/8/92	COMPLTD. 3/8/92
METHOD: SSA	CASE SIZE. N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT
LOGGED BY. R W Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Gray, fine to very fine grained, well-sorted.		SM		
					SILTRY SAND. As above, reddish brown				
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL	**LOG of WELL:** J27-SL009		**BORING NO.** J27-SL009
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			**PROJECT NO:** 7555-09
CONTRACTOR: Groundwater Protection		**DATE STARTED.** 3/8/92	**COMPLTD:** 3/8/92
METHOD: SSA	**CASE SIZE:** N/A	**SCREEN INT.:** N/A	**PROTECTION LEVEL:** D
TOC ELEV.: N/A FT	**MONITOR INST.:** OVA	**TOT DPTH:** 4FT	**DPTH TO ▽** N/A FT
LOGGED BY: R.W. Holloway	**WELL DEVELOPMENT DATE:** N/A		**SITE:** OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Dark brown, fine to very fine grained, well-sorted.		SM		
					SILTY SAND. As above, reddish brown.				
					SILTY SAND. As above, light gray.				
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE. NAS JACKSONVILLE, Jacksonville, FL		LOG of WELL. J27-SL010	BORING NO. J27-SL010
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7555-09
CONTRACTOR: Groundwater Protection		DATE STARTED. 3/8/92	COMPLTD: 3/8/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT.	DPTH TO ▽ N/A FT
LOGGED BY. R W Holloway	WELL DEVELOPMENT DATE: N/A		SITE. OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND Dark brown, fine to very fine grained, well-sorted.		SM		
					SILTY SAND As above, reddish brown.				
					SILTY SAND. As above, light gray.				
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NAS JACKSONVILLE, Jacksonville, FL	LOG of WELL. J27-SL011	BORING NO. J27-SL011
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO. 7555-09
CONTRACTOR: Groundwater Protection	DATE STARTED: 3/8/92	COMPLTD: 3/8/92
METHOD. SSA	CASE SIZE: N/A	SCREEN INT.: N/A	PROTECTION LEVEL: D
TOC ELEV.: N/A FT	MONITOR INST.: OVA	TOT DPTH: 4FT	DPTH TO ▽ N/A FT
LOGGED BY: R W. Holloway	WELL DEVELOPMENT DATE: N/A	SITE: OU1

DEPTH FT	LABORATORY SAMPLE ID	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	SILTY SAND. Gray, fine to very fine grained, well-sorted SILTY SAND As above, reddish brown.		SM		
5									
10									
15									
20									
25									
30									

 ABB ENVIRONMENTAL SERVICES, INC.

Appendix B
Chain-of-Custody

ANALYSIS REQUESTED REFERENCE SHEET

Note: In all places on the Analysis Request Form and the Chain of Custody Form where the type of analysis is requested or the sample type is requested, there is a number inserted. This number refers to the analysis summaries below.

1) Volatile Organic Compounds w/TIC (VOCs) Method 624/8240
(3- 40 ml glass w/HCl), (2 - 2 oz glass soil)

2) Semi-Volatile Organic Compounds w/TIC Method 625/8270
(1- 2 liter amber glass), (1 - 8 oz soil)

3) Polychlorinated Biphenols (PCBs) and PESTICIDES Method 608/8080
(1- 2 liter amber glass), (1 - 8 oz soil)

4) TAL/TCL Metals CLP ICP AND GRAPHITE FURNACE
(2 - 1 liter plastic w/HNO_3 , non filtered), (8 oz soil)

5) Cyanide Method 335.2/DI EXTRACT
(1 - 1/2 gal plastic w/NaOH)

6) Radiological Parameters

Gross Alpha	Method 9310
Gross Beta	Method 9310
Radium - 226	Method 9315
Radium - 228	Method 9320

(2 - 1/2 gal plastic w/HNO^3), (1 - 8 oz glass soil)

(1 2L AMBER DIOXIN & FURANS)

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME	CLIENT ADDRESS AND PHONE NUMBER	FOR LAB USE ONLY
7550-04	NAS JACKSONVILLE OW	2571 EXEC CENTER CIR. EAST TALLAHASSEE, FL 32301 904 656-1793	LAB# 20492
CLIENT NAME: ABB-ES			LAB#
PROJECT MANAGER: PHIL GEORGARIOU	COPY TO: GREG BROWN		PROJECT NO: LMG27317.XY.JA
REQUESTED COMP. DATE: NORMAL T/A	SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ___		ACK: SH / VERIFIED
			QUOTE# / BS
			NO. OF SAMP / PG 2 OF 3

ANALYSES REQUESTED

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	TCL VOLATILES W/TIC	625 SEMIVOL W/TIC	608 M PCB ONLY	TAL METALS	LAB ID	REMARKS
SL021	12/17/91				✓	J261291SL021	1			X		009	
SL104	"				✓	J261291SL104	1			X		010	
RP068	"				✓	J261291RP068	3		X	X	X	(003)	Replicate Sample
SL068	"				✓	J261291SL068	3		X	X	X	(001)	
SL070	"				✓	J261291SL070	3		X	X	X	(004)	
SL106	"				✓	J261291SL106	1			X		011	sample rec'd - only label on jar lid / no writing on bottle label sty
SL102	"				✓	J261291SL102	1			X		012	
SL105	"				✓	J261291SL105	1			X		013	
SL101	"				✓	J261291SL101	1			X		014	
SL015	"				✓	J261291SL015	1			X		015	
SL103	"				✓	J261291SL103	1			X		016	

all soils pH = N/A

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
G. BROWN Sr. Engr	12/17/91 630	[signature]	12/17/91 630
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [signature]	DATE/TIME: 12/18/91 1000	SAMPLE SHIPPED VIA: UPS BUS FED-EX GROUND OTHER ___	AIR BILL# 1637096171

HAZWRAP/NEESA Y N

QC LEVEL 1 2 SH

COC yes / ICE yes

ANA REQ yes / TEMP 4°C

CUST SEAL yes / Ph as listed

SAMPLE COND as listed

REMARKS

ENTERED INTO LIMS [initials] 12/18 COC REVIEWED [initials] 12/18/91

000542

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

EDATA MVCW, S SVCW, S (extra) PCS/PCE PCLX JAX TAL W S

PROJECT NUMBER	PROJECT NAME	CLIENT ADDRESS AND PHONE NUMBER
7550-04	NAS JACKSONVILLE OU1	2571 EXEC CENTER CIR. EAST TALLAHASSEE, FL 32301 (904) 656-1293

CLIENT NAME: ABB-ES

PROJECT MANAGER: PHIL GEORGARIOU

COPY TO: GREG BROWN

REQUESTED COMP DATE: NORMAL TURNAROUND

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

FOR LAB USE ONLY: LAB# 20492; LAB#; PROJECT NO. LM627317.XY.JA; ACK SH 12/20; VERIFIED 12/18/91; QUOTE#; BS 12/18; NO. OF SAMP; PG 1 OF 3

ANALYSES REQUESTED

STA NO.	1991 DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	TCL VOLATILE W/TIC	625 ~~A~~ SEMIVOL W/TIC	608M PCB ONLY	TAL METALS							LAB ID	REMARKS
SL068	12/17	410			X	J261291SL068	2	X										001	
SL073	12/17	315			X	J261291SL073	2	X										002	
RP068	12/17	410			X	J261291SLRP068	2	X										003	NOTE LABELING ERROR "RD" SHOULD BE "RP"
SL070	12/17	350			X	J261291SL070	2	X										004	
SL074	12/17	245			X	J261291SL074	2	X										005	
FB	12/17	1230		X		J261291FB001	6	X	X	X	X							006	FIELD BLANK
EB	12/17	130		X		J261291EB001	4	X			X							007	EQUIP BLANK
TB	12/17	N/A		X		J261291TB001	3	X										008	TRIP BLANK

Soil

water

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
G. BROWN Sr Engr	12/17/91 610	[signature]	12/17/91 610
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [signature]	DATE/TIME 12/18/91 1000	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 1637096145

HAZWRAP/NEESA (Y) N; QC LEVEL 1 2 3H; COC yes; ICE yes; ANA REQ yes; TEMP 4°C; CUST SEAL yes; Ph as listed; SAMPLE COND as listed

REMARKS

ENTERED INTO LIMS 12/18; COC REVIEWED 12/18/91

000541

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7550-04	NAS JACKSONVILLE OU1

CLIENT NAME: ABB-ES

PROJECT MANAGER: PHIL GEORGARION

COPY TO: GREG BROWN

REQUESTED COMP. DATE: NOON T/A

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2571 CEC CENTER CIR EAST TALLAHASSEE, FL 32301 (904) 656-1293

STA NO.	DATE (1991)	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	TCL VOLATILES W/TIC	625 SEMI VOL W/TIC	608M PCB ONLY	TAL METAL							LAB ID	REMARKS
SL073	12/17					J261291SL073			X	X	X				soil			(002)	
SL074	12/17					J261291SL074			X	X	X				↓			(005)	
SL07	12/17					J261291SL07				X					↓			017	
EB	12/17					J261291EB001			X[2]	X[2]					water			(007)	EQUIPMENT BLANK
											✓							Z51	soil method Blank
											✓							Z01	water method Blank
										✓								B18	soil Blk Spk/LCS
										✓								B19	water Blk Spk/LCS

FOR LAB USE ONLY

LAB# 20492

LAB#

PROJECT NO LM627317.XY.JA

ACK SH VERIFIED

QUOTE# BS

NO. OF SAMP PG 3 OF 3

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
G. Brown Sr. Engr	12/17/91 620	[signature]	12/17/91 620
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY.	DATE/TIME
RECEIVED BY LAB: [signature]	DATE/TIME 12/18/91 1000	SAMPLE SHIPPED VIA UPS BUS FED-EX HAND OTHER ____	AIR BILL# 1637096160

HAZWRAP/NEESA (Y) N

QC LEVEL 1 2 (3) H

COC ✓ ICE ✓

ANA REQ ✓ TEMP 4°C

CUST SEAL ✓ Ph as listed

SAMPLE COND. as listed

REMARKS

ENTERED INTO LIMS

COC REVIEWED 12/18/91

000543

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME	CLIENT ADDRESS AND PHONE NUMBER	FOR LAB USE ONLY
7550-04	NAS JACKSONVILLE OU1	2571 EXEC. CNTR. CIR. EAST TALLAHASSEE FL 32301 (904) 656-1293	LAB# 20502
CLIENT NAME: ABB-ES			LAB#
PROJECT MANAGER: PHIL GEORGARIOU	COPY TO: GREG BROWN		PROJECT NO. LMG27317.XY.JA
REQUESTED COMP DATE: NORM T/A	SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ___		ACK SH 12/20 VERIFIED M 12/19/91
			QUOTE# BS M
			NO. OF SAMP PG 1 OF 2

ANALYSES REQUESTED

STA NO	1991 DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	TCL VOLATILES W/TIC	625 SEMIVOL W/TIC	608 PCB ONLY	~~8280 DIOXIN FU~~ JB	TAL METALS	LAB ID	REMARKS
EB	12/18	1205		X		J261291EB002	6	X	X	X		X	001	EQUIP BLANK
TB	"	NA		X		J261291TB002	3	X					002	TRIP BLANK
RP40 SL40	"	450			X	J261291RP040	2	X					003	DUPLICATE
SL "	"	450			X	J261291SL040	2	X						
"	"	415			X	J261291MS040	2	X					004	MATRIX SPIKE
"	"	415			X	J261291MSD040	2	X						MS DUPLICATE
						SL040MS		✓	✓	✓		✓	M04	COMMENT:
						SL040MSD		✓	✓	✓			D04	"HIGH SOIL VAPOR READINGS"
						SL040DUP						✓	P04	
						Method Blank							ZS1	} method Blank
						↓							ZW1	
						Blk Spk/LCS				✓			B05	soil LCS
						↓				✓			B06	water LCS

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME	HAZWRAP/NEESA (Y) N
D. Brown Sr. Engr	12/18/91 645	[signature]	12/18/91 645	QC LEVEL 1 2 3 (3H)
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	COC yes ICE yes
				ANA REQ yes TEMP 4°C
RECEIVED BY.	DATE/TIME	RELINQUISHED BY:	DATE/TIME	CUST SEAL yes Ph as listed
				SAMPLE COND as listed
RECEIVED BY LAB: [signature]	DATE/TIME 12/19/91 0930	SAMPLE SHIPPED VIA UPS BUS (FED-EX) HAND OTHER ___	AIR BILL# 1637096193	

REMARKS SL40 & RP40 HAD HIGH SOIL VAPOR READINGS USING PORTAFID (>1000ppm IN HEADSPACE)

ENTERED INTO LIMS M 12/19 COC REVIEWED [signature] 12/19/91

REV 6/89 FORM 340

000544

CH HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME	CLIENT ADDRESS AND PHONE NUMBER	FOR LAB USE ONLY
7550-04	NAS JACKSONVILLE OU1	2571 EXEC. CNTR. CIR. EAST TALLAHASSEE FL 32301 (904) 656-1293	LAB# 20502
CLIENT NAME: ABB-ES			LAB#
PROJECT MANAGER: PHIL GEORGARIOU	COPY TO: GREG BROWN		PROJECT NO. LMG27317.XY.JA
REQUESTED COMP DATE: NORM T/A	SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ___		ACK SH 12/20 VERIFIED M 12/19/91
			QUOTE# BS M
			NO. OF SAMP PG 1 OF 2

ANALYSES REQUESTED

STA NO.	1991 DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	TCL VOLATILES W/TIC	625 SEMIVOL W/TIC	608 PCB ONLY	~~8280 DIOXIN FOR~~ GB	TAL METALS	LAB ID	REMARKS
EB	12/18	1205		X		J261291EB002	6	X	X	X		X	001	EQUIP BLANK
TB	"	NA		X		J261291TB002	3	X					002	TRIP BLANK
RP040 SL40	"	450			X	J261291RP040	2	X					003	DUPLICATE
SL "	"	450			X	J261291SL040	2	X						
"	"	415			X	J261291MS040	2	X					004	MATRIX SPIKE
"	"	415			X	J261291MSD040	2	X						MS DUPLICATE
						SL040MS		✓	✓	✓		✓	M04	COMMENT:
						SL040MSD		✓	✓	✓			D04	"HIGH SOIL VAPOR READINGS"
						SL040DUP						✓	P04	
						Method Blank							ZS1	method Blank
						↓							ZW1	
						Blk Spk/LCS				✓			B05	soil LCS
						↓				✓			B06	water LCS

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME	
D. Brown Sr. Engr	12/18/91 645	[signature]	12/18/91 645	HAZWRAP/NEESA (Y) N
				QC LEVEL 1 2 3 (3H)
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	COC yes ICE yes
				ANA REQ yes TEMP 4°C
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	CUST SEAL yes Ph as listed
				SAMPLE COND as listed
RECEIVED BY LAB: [signature]	DATE/TIME 12/19/91 0930	SAMPLE SHIPPED VIA UPS BUS (FED-EX) HAND OTHER ___	AIR BILL# 1637096193	

REMARKS: SL40 & RP40 HAD HIGH SOIL VAPOR READINGS USIND PORTAFID (>1000ppm IN HEADSPACE)

ENTERED INTO LIMS M 12/19 COC REVIEWED M 12/19/91

REV 6/89 FORM 340

000544

...M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME: NAS JAX
CLIENT NAME: AGB Environmental	
PROJECT MANAGER	COPY TO:
REQUESTED COMP. DATE	SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ___

CLIENT ADDRESS AND PHONE NUMBER

ANALYSES REQUESTED

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	VOAs 1	SV 2	PCB 3	Metals 4	Cyanide 5	Radiol. 6					LAB ID
	1/30/92					SWRPC01MS		✓	✓	✓	✓	✓	✓					M07
	↓					SWRPC01MSD		✓	✓	✓					water			D07
	↓					SWRPC01DUP					✓	✓	✓					P07
	1/30/92					SDRPC01MS		✓	✓	✓	✓	✓	✓					M08
	↓					SDRPC01MSD		✓	✓	✓					soil			D08
	↓					SDRPC01DUP					✓	✓	✓					P08
	1/31/92					BLK SPK/LCS				✓						water		B12
	↓					BLK SPK/LCS				✓						soil		B13
	1/31/92					Method blank					✓	✓	✓					ZW1
	↓					Method blank					✓	✓	✓					ZS1

FOR LAB USE ONLY

LAB# 20803

LAB#

PROJECT NO. LMG33486XXJA

ACK SH | VERIFIED

QUOTE# | BS

NO. OF SAMP | PG 3 | OF 3

REMARKS

ANALYSIS Radiological

QC LEVEL ___ DATE DUE ___

REPORT TO E. RAMUCHAK/LMG

SHIP # ___ LAB 5505 INIT GDS 2/4/92

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [signature]	DATE/TIME 1/31/92 0930	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ___	AIR BILL#

HAZWRAP/NEESA Y N

QC LEVEL 1 2 3

COC | ICE

ANA REQ | TEMP

CUST SEAL | Rh

SAMPLE COND.

REMARKS

ENTERED INTO LIMS [initials] 2/2/92 COC REVIEWED ___

000807

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
07555-02	NAS JAX

SAMPLERS (SIGNATURE): [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1	2	3	4	5	6	2 & 3					REMARKS INDICATE SOIL/WATER/AIR SEDIMENT/SLUDGE
J260192FB001	1/30/92	1750		✓	NAS JAX	10	3	1	1	2	1	2					011	ASTM TYPE I H_2O
J260192FB001	1/30/92	1750		✓	NAS JAX	5	2*			1		1	1					ASTM TYPE I H_2O

~~Travel Blank — J260192TB001 [illegible] 1/31/92~~
[illegible] on [illegible] 1/31/92

ANALYSIS [illegible]
QC LEVEL _____ DATE DUE _____
REPORT TO E. RAMUCHAK/LMG
SHIP # [illegible] LAB SSOE INIT [illegible] 2/4/92

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
[signature]	1/30/92 1920	[signature] 1/31/92 0930			
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR DISPOSAL BY: (SIGNATURE)	DATE/TIME	REMARKS * = GRAB SAMPLES	

ABB Environmental Services, Inc.

OH-62

LIMS-AAS

000806

CHAIN OF CUSTODY RECORD

PROJECT NO.: 07555-02
PROJECT NAME: NAS JAX
SAMPLERS (SIGNATURE): [signature]

SH 2/14 — LMG 33 ... 2/3/92

C 3H — yes yes yes — yes 3°C — See below W.L. & Sul

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1	2	3	4	5	6	2 & 3					REMARKS 1 of 3 AMS — INDICATE SOIL/WATER/AIR SEDIMENT/SLUDGE
J260192SW006	1/29/92	1210		✓	NAS JAX	10	3	1	1	2	1	2					001	SURFACE WATER
J260192SD006	1/29/92	1210	✓			5	2*			1		1	1				002	SEDIMENT
J260192SW007	1/30/92	1020		✓		10	3	1	1	2	1	2					003	SURFACE WATER
J260192SD007	1/30/92	1020	✓			5	2*			1		1	1				004	SEDIMENT
J260192SW05		1515		✓		10	3	1	1	2	1	2					005	SURFACE WATER
J260192SD005		1515	✓			5	2*			1		1	1				006	SEDIMENT
J260192RP001		1525		✓		10	3	1	1	2	1	2					007	SURFACE WATER
J260192RP001		1525	✓			5	2*			1		1	1				008	SEDIMENT
J260192MS001		1535		✓		10	3	1	1	2	1	2					007	SURFACE WATER
J260192MS001		1535	✓			5	2*			1		1	1				008	SEDIMENT
J260192MSD001		1545		✓		10	3	1	1	2	1	2					007	SURFACE WATER
J260192MSD001		1545	✓			5	2*			1		1	1				008	SEDIMENT
J260192TB001						3	3										009	—
J260192EB001		1645		✓		10	3	1	1	2	1	2					010	ASTM TYPE I H_2O
J260192EB001		1645		✓		5	2*			1		1	1					ASTM TYPE I H_2O

ANALYSIS: GRS AB, RA226, RA228
QC LEVEL: 3H — DATE DUE: 2/26/92
REPORT TO: E. RAMUCHAK/LMG
SHIP #: Bus — LAB: ESE — INIT: AMS 2/11/92

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
[signature]	1/30/92 1920	[signature] 1/31/92 0930			
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR DISPOSAL BY: (SIGNATURE)	DATE/TIME		

REMARKS: * = GRAB, Soil Samples
Driven To FedX, Shipment Sent out 1/30/92
7 Coolers
~~Invoice~~ # Airbill # 1637151246

ABB Environmental Services, Inc.

OH-62

21MS-AMS-C2250777 - 2/2/92

000805

CHAIN OF CUSTODY RECORD

1 of 3 A103

PROJECT NO.: 07555-02

PROJECT NAME: NASJAX

SAMPLERS (SIGNATURE): [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	SAMPLE TYPE 1	2 & 3	4 & 5	6		REMARKS INDICATE SOIL/WATER/AIR SEDIMENT/SLUDGE
J260292SL 056	2-5-92	1030		✓	NAS JAX	2	2				001	SOIL
"			✓			3		1	1	1		
J260292SL 057		1040		✓		2	2				002	
"			✓			3		1	1	1		
J260292SL 058	1110	1110		✓		2	2				003	208 47
"			✓			3		1	1	1		4633486.XY, JA AH 2/11
J260292SL 059	1115	1115		✓		2	2				004	
"			✓			3		1	1	1		yes yes yes yes
J260292SL 060	1020	1020		✓		2	2				005	
"			✓			3		1	1	1		Soil
J260292SL 061	1010	1010		✓		2	2				006	* Form I's due 2/20/92
"			✓			3		1	1	1		
J260292SL 062	1055	1053		✓		2	2				007	1.5X per S. Hamil AHS 2/10/92
"			✓			3		1	1	1		

ANALYSIS GRS AVS RA226, RA228

QC LEVEL 3H DATE DUE 3/2/92 2/18/92

REPORT TO E. RAMUCHAK/LMG

SHIP # [illegible] LAB ESE INIT

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
[signature]	2/5/92 1600				[signature] 2/6/92 0900
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR DISPOSAL BY: (SIGNATURE)	DATE/TIME	REMARKS	

NOTE: ALL BOTTLES WERE LABELED 2-4-92 BUT WERE FILLED 2-5-92.

FED EX AIRBILL # 1637151283

C2668783 LMS AHS 2/6/92

LEVEL D

* NEED 10 DAY TURNAROUND FOR [illegible] ONES

ABB Environmental Services, Inc.

OH-62

000482

CHAIN OF CUSTODY RECORD

PROJECT NO.: 07555-02

PROJECT NAME: NASJAX

SAMPLERS (SIGNATURE): [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1	2 & 3	4 & 5	6							REMARKS INDICATE SOIL/WATER/AIR SEDIMENT/SLUDGE
5SL0292MS 001	2/5/92	1110		✓	NASJAX	2	2										SOIL
"			✓			3		1	1	1							SOIL
5SL0292MSD 001		1110		✓		2	2	+	+							008	SOIL
"			✓			3		1	1	1							SOIL
5SL0292EB 001		1130		✓		2	2										WATER
"			✓	✓		3		1	1	1							WATER
5SL0292RP 001		1110		✓		2	2										SOIL
"			✓			3		1	1	1						008	SOIL
5SL0292TB 007							3									009	WATER

ANALYSIS: GASAB, RA226, RA228

QC LEVEL: 3H — DATE DUE: ~~2/12/92~~ 2/18/92

REPORT TO: E. RAMUCHAKA/LMC

SHIP VIA: Fed Ex — LAB: TSE — INIT: ___

2084 T
LMG 3348C. XYLOA
SH
031H
yes yes yes yes yes N/A

Do not ksin for Alkas. #

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
[signature]	2/5/92 1600				[signature] 2/6/92 0900
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR DISPOSAL BY: (SIGNATURE)	DATE/TIME	REMARKS NOTE: ALL BOTTLES WERE LABELED 2-4-92 BUT WERE FILLED 2-5-92. FED EX. AIRBILL #	

ABB Environmental Services, Inc.

OH-62

LEVEL D

Contr. # 910352-T & 910348-C

* NEED 10 DAY TURN AROUND FORM ONES

UU0483

QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PAGE 3 of 3

PROJECT NUMBER	PROJECT NAME: NAS JAX
CLIENT NAME: ABB Environmental	
PROJECT MANAGER	COPY TO:
REQUESTED COMP. DATE	SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER

FOR LAB USE ONLY: LAB# 20847; LAB# LMAC 5 [illegible]; PROJECT NO.; ACK.; VERIFIED; QUOTE#; BY; NO. OF SAMP.; PG. 3 OF 3

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	Vol	SU, Fecal/Fc.B	Metals	Cyanide	GRSAB, RA226 RA228					LAB ID	REMARKS
	2/5/92					SLRP001MS		✓	✓	✓	✓	✓					M08	
						SLRP001 MSD		✓	✓			✓					D08	
	↓					SLRP001 DUP				✓	✓						P08	
	2/6/92					BLK Spk/LCS			Fecal/Fc.B								B10	
	2/6/92					Method Blank				✓	✓	✓					Z51	

ANALYSIS: GRSAB RA226, RA228

QC LEVEL: 3H DATE DUE: 2/18/92

REPORT TO: E. RAMUCHAK/LMG

SHIP # Bus LAB ESOE INIT.

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME	HAZWRAP/NEESA Y N
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	QC LEVEL 1 2 3 T; COC; ICE
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	ANA REQ; TEMP; CUST SEAL; Ph
RECEIVED BY LAB: [illegible]	DATE/TIME 2/6/92 0700	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL#	SAMPLE COND.

REMARKS

ENTERED INTO LIMS ____ COC REVIEWED ____

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7550-02	NAS JAX 001

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST BERKELEY BUILDING TALLAHASSEE, FL. 32301 1-800-462-3073

ANALYSES REQUESTED

FOR LAB USE ONLY: LAB# 32342; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	TCL VOCs 624	SEMI-VOCs 625	PCB/PEST 608	TAL METALS	CYANIDE	RADIUM-228	DIOXIN + FURANS 8280				LAB ID	REMARKS
1	3/3/92	1815		X		JSL ~~FB001~~ FB-01	11	3	1	1	2	1	2	1				-1	
2	"	1800		X		JSL ~~EB001~~ EB-01	11	3	1	1	2	1	2	1				-2	

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
MIKE JAYNES / RANDY HILLOWAY	3/3/92 1900	Michael O. Jayne	3/3/92 1900
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [illegible]	DATE/TIME 3-5-92 0930	SAMPLE SHIPPED VIA: UPS BUS [illegible] HAND OTHER ____	AIR BILL# 1924253995

HAZWRAP/NEESA (Y) N

QC LEVEL 1 2 3

COC | ICE

ANA REQ | TEMP

CUST SEAL | Ph

SAMPLE COND.

REMARKS

ENTERED INTO LIMS | COC REVIEWED

00086

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7550-02	NAS JAX 001

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2540 EXECUTIVE CENTER CIRCLE EAST, ASHLEY BUILDING, TALLAHASSEE, FL. 32301 1-800-462-3073

FOR LAB USE ONLY: LAB# 32342; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

ANALYSES REQUESTED

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	BNA, PCB/PEST 625, 608	TAL METALS, CHEMISTRY	ALPHA, BETA RAD - 226 + 228	DIOXIN + FURANS 8280	*TCL VOCS 624						LAB ID	REMARKS
1	3/3/92	1125	X		X	JSL 034 0-3"	1				1							-3	
2	"	1540	X		X	JSL 034 (9-11')	6	1	1	1	1	2						-4	
3	"	1540	X		X	JSL AP001 (9-11')	6	1	1	1	1	2						-5	
4	"	1540	X		X	JSL MS001 (9-11')	6	1	1	1	1	2						-6	
5	"	1540	X		X	JSL MSD001 (9-11')	6	1	1	1	1	2						-7	
~~6~~	~~"~~					~~JSL FB001~~ MJ													
~~7~~	~~"~~					~~JSL EB001~~ MJ													
6	3/3/92					JSL TB001	3					3						-8	

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME	
MIKE MYNES / RANDY HILLIARD	3/3/92 1900	Michael O. Jaynes	3/3/92 1900	HAZWRAP/NEESA (Y) N; QC LEVEL 1 2 3
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	COC; ICE
				ANA REQ; TEMP
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	CUST SEAL; PH
				SAMPLE COND.
RECEIVED BY LAB: Bryan Jones	DATE/TIME 3-4-92 0930	SAMPLE SHIPPED VIA: UPS BUS (FED-EX) HAND OTHER ____	AIR BILL# 1924253995	

REMARKS

ENTERED COC

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7550-02	NAS JAX 002

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST, BARKELEY BUILDING, TALLAHASSEE, FL 32301 1-800-462-3073

FOR LAB USE ONLY: LAB# 32349; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

ANALYSES REQUESTED

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCS 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD - 226 + 228	DIOXIN + FURANS 8280				LAB ID	REMARKS
1	3/4/92	0830		X		JSL EB002	11	3	1	1	2	1	2	1				1	WATER
2	3/4/92	1000	X		X	JSL 035 (9-11')	5	2	(1)		(1)		1					2	SOIL - ABOVE W.T.
3	3/4/92	1120	X		X	JSL 039 0-3"	1							1				3	SOIL
4	3/4/92	1130	X		X	JSL 039 (10-12')	6	2	(1)		(1)		1	1				4	SOIL - ABOVE W.T.
5	3/4/92	1400	X		X	JSL 040 0-3"	1							1				5	SOIL
6	3/4/92	1410	X		X	JSL 040 (9-11')	6	2	(1)		(1)		1	1				6	SOIL - ABOVE W.T.
7	3/4/92	1455	X		X	JSL 043 0-3"	1							1				7	SOIL
8	3/4/92	1500	X		X	JSL 043 (5-7')	6	2	(1)		(1)		1	1				8	SOIL - ABOVE W.T.
9	3/4/92	1550	X		X	JSL 044 0-3"	1							1				9	SOIL
10	3/4/92	1555	X		X	JSL 044 (7-9')	6	2	(1)		(1)		1	1				10	SOIL - ABOVE W.T.
11	3/4/92	1635	X		X	JSL 047 0-3"	1							1				11	SOIL
12	3/4/92	1640	X		X	JSL 047 (3-5')	6	2	(1)		(1)		1	1				12	SOIL - ABOVE W.T.
13	3/4/92			X		JSL TB002	3	3										13	TRAVEL BLANKS - H_2O

SAMPLED BY AND TITLE: MIKE JAYNES / RANDY HOLLOWAY	DATE/TIME: 3/4/92 1900	RELINQUISHED BY: Michael O. Jaynes	DATE/TIME: 3/4/92 1900
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [illegible] Smith	DATE/TIME: 3/5/92 0915	SAMPLE SHIPPED VIA: UPS BUS [illegible]EX HAND OTHER ____	AIR BILL# 1924253984 (2 COOLERS)

HAZWRAP/NEESA (Y) N; 3SH

QC LEVEL 1 2 (3)

COC (Y); ICE Y; ANA REQ Y; TEMP 2°C; CUST SEAL Y; PH 22, 29; SAMPLE COND. GOOD

REMARKS: * TCL VOCs FOR SOIL WITH GRAB SAMPLES NOT COMPOSITE

ENTERED INTO LIMS [illegible] REVIEWED [illegible]

000369

(2 COOLERS)

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7550-02	NAS JAX 003

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE: 4/5/92

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2540 EXECUTIVE CENTER CIRCLE EAST BRAKELEY BUILDING TALLAHASSEE, FL. 32301 1-800-462-3073

FOR LAB USE ONLY: LAB# 32367; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD - 226 + 228	DIOXIN + FURANS 8280				LAB ID	REMARKS
1	3/5/92			X		JSL TB003	3	3										1	WATER
2	"	0830		X		JSL EB003	11	3	1	1	2	1	2	1				2	"
3	"	1200	X		X	JSL 100 (4-6')	~~5~~ 6	2	(1)	(1)	1							3	SOIL - ABOVE W.T.
4	"	1240	X		X	JSL 098 (7-9')	5	2	(1)	(1)	1							4	" " "
5	"	1530	X		X	JSL 097 (1-3') A	5	2	(1)	(1)	1							5	" " "
6	"	1550	X		X	JSL 097 (7-9')	5	2	(1)	(1)	1							6	" " "
7	"	1650	X		X	JSL 094 (5-7')	5	2	(1)	(1)	1							7	" " "

A- ADDITIONAL SAMPLE TAKEN BASED ON ELEVATED FID READINGS

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
MIKE JAYNES / RANDY HUGHES	3/5/92 1800	Michael O. Jaynes	3/5/92 1800
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: Allen Smith	DATE/TIME 3/6/92 0930	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 192 425 4382

HAZWRAP/NEESA (Y) N; QC LEVEL 1 2 (3); COC Y; ICE Y; ANA REQ Y; TEMP 2°C; CUST SEAL Y; Ph <2, >9; SAMPLE COND. GOOD

REMARKS: * TCL VOCs ARE GRAB SAMPLES AT DEPTH, NOT COMPOSITE

ENTERED INTO LIMS | COC REVIEWED

000

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7550-02	NAS JAX 002

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST, BERKELEY BUILDING, TALLAHASSEE, FL 32301 1-800-462-3073

FOR LAB USE ONLY: LAB# 32349; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

ANALYSES REQUESTED

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCS 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD - 226 + 228	DIOXIN + FURANS 8280				LAB ID	REMARKS
1	3/4/92	0830		X		JSL EB002	11	3	1	1	2	1	2	1				1	WATER
2	3/4/92	1000	X		X	JSL 035 (9-11')	5	2	(1)	(1)	1							2	SOIL - ABOVE W.T.
3	3/4/92	1120	X		X	JSL 039 0-3"	1							1				3	SOIL
4	3/4/92	1130	X		X	JSL 039 (10-12')	6	2	(1)	(1)	1	1						4	SOIL - ABOVE W.T.
5	3/4/92	1400	X		X	JSL 040 0-3"	1							1				5	SOIL
6	3/4/92	1410	X		X	JSL 040 (9-11')	6	2	(1)	(1)	1	1						6	SOIL - ABOVE W.T.
7	3/4/92	1455	X		X	JSL 043 0-3"	1							1				7	SOIL
8	3/4/92	1500	X		X	JSL 043 (5-7')	6	2	(1)	(1)	1	1						8	SOIL - ABOVE W.T.
9	3/4/92	1550	X		X	JSL 044 0-3"	1							1				9	SOIL
10	3/4/92	1555	X		X	JSL 044 (7-9')	6	2	(1)	(1)	1	1						10	SOIL - ABOVE W.T.
11	3/4/92	1635	X		X	JSL 047 0-3"	1							1				11	SOIL
12	3/4/92	1640	X		X	JSL 047 (3-5')	6	2	(1)	(1)	1	1						12	SOIL - ABOVE W.T.
13	3/4/92			X		JSL TB002	3	3										13	TRAVEL BLANKS - H_2O

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
MIKE JAYNES / RANDY HOLLOWAY	3/4/92 1900	Michael O. Jaynes	3/4/92 1900
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: Allen Smith	DATE/TIME 3/5/92 0915	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 1924253984 (2 COOLERS)

HAZWRAP/NEESA (Y) N; QC LEVEL 1 2 (3); COC Y; ICE Y; ANA REQ Y; TEMP 2°C; CUST SEAL Y; Ph 12.79; SAMPLE COND. GOOD

REMARKS: * TCL VOCs FOR SOIL WERE GRAB SAMPLES, NOT COMPOSITE

ENTERED INTO LIMS ____ COC REVIEWED ____

3SH

001557

CH2M HILL QUALITY ANALYTICS

(2 COOLERS)

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7550-02	NAS JAX 003

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE: 4/5/92

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2540 EXECUTIVE CENTER CIRCLE EAST, BERKELEY BUILDING, TALLAHASSEE, FL. 32301 1-800-462-3073

FOR LAB USE ONLY: LAB# 32362; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

ANALYSES REQUESTED

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD - 226 + 228	DIOXIN + FURANS 8280				LAB ID	REMARKS
1	3/5/92			X		JSL TB003	3	3										1	WATER
2	"	0830		X		JSL EB003	11	3	1	1	2	1	2	1				2	"
3	"	1200	X		X	JSL 100 (4-6')	~~2~~ 5	2	(/)	(/)	1							3	SOIL - ABOVE W.T.
4	"	1240	X		X	JSL 098 (7-9')	5	2	(/)	(/)	1							4	" " "
5	"	1530	X		X	JSL 097 (1-3')A	5	2	(/)	(/)	1							5	" " "
6	"	1550	X		X	JSL 097 (7-9')	5	2	(/)	(/)	1							6	" " "
7	"	1650	X		X	JSL 099 (5-7')	5	2	(/)	(/)	1							7	" " "

A- ADDITIONAL SAMPLE TAKEN BASED ON ELEVATED FID READINGS

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
MIKE JAYNES / RANDY HUGHES	3/5/92 1800	Michael O. Jaynes	3/5/92 1800
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: Allen Smith	DATE/TIME 3/6/92 0930	SAMPLE SHIPPED VIA: UPS BUS (FED-EX) HAND OTHER ____	AIR BILL# 192 425 4382

HAZWRAP/NEESA (Y) N; QC LEVEL 1 2 (3); COC Y; ICE Y; ANA REQ Y; TEMP 2°C; CUST SEAL Y; Ph <2, >9; SAMPLE COND. GOOD

REMARKS: * TCL VOCs ARE GRAB SAMPLES AT DEPTH, NOT COMPOSITE

ENTERED INTO LIMS ____ COC REVIEWED ____

001119

(2 COOLERS)

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
07550-02	NAS JAX 004

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE: Normal

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST, BERKELEY BUILDING, TALLAHASSEE, FL. 32301 1-800-422-3023

FOR LAB USE ONLY: LAB# 32374; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD - 226 + 228	DIOXIN + FURANS 8280				LAB ID	REMARKS
1	3/6/92			X		JSL TB004	3	3										-1	WATER
2	"	0800	X	X		JSL EB004	11	3	1	1	2	1	2	1				-2	"
3	"	0925	X		X	JSL 083 0-3"	5	2	(1)		(1)		1					-3	SOIL
4	"	0935	X		X	JSL 083 (5-7')	5	2	(1)		(1)		1					-4	SOIL - ABOVE W.T.
5	"	1015	X		X	JSL 082 0-3"	5	2	(1)		(1)		1					-5	SOIL
6	"	1025	X		X	JSL 082 (3-5')	5	2	(1)		(1)		1					-6	SOIL - ABOVE W.T.
7	"	1120	X		X	JSL 079 0-3"	5	2	(1)		(1)		1					-7	SOIL
8	"	1130	X		X	JSL 079 (4-6')	5	2	(1)		(1)		1					-8	SOIL - ABOVE W.T.

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
MIKE JAYNES / RANDY HELLOWAY	3/6/92 1700	Michael O. Jaynes	3/6/92 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: Bryan Jones	DATE/TIME 3-9-92 10 00	SAMPLE SHIPPED VIA: UPS BUS (FED-EX) HAND OTHER ____	AIR BILL# ~~20 34 25 85 42~~ 1974253973

HAZWRAP/NEESA (Y) N

QC LEVEL 1 2 3

COC | ICE

ANA REQ | TEMP

CUST SEAL | Ph

SAMPLE COND.

REMARKS: * TCL VOCs ARE GRAB SAMPLES AT DEPTH, NOT COMPOSITE

ENTERED INTO LIMS ____ COC REVIEWED ____

001320

2 COOLERS

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX OU1

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST BERKELEY BUILDING TALLAHASSEE, FL. 32301 1-800-462-3023

FOR LAB USE ONLY: LAB# 32376; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

ANALYSES REQUESTED

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 625/8270	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD - 226 + 228	DIOXIN + FURANS 8280				LAB ID	REMARKS
1	3/7/92			X		JSL TB005	3	3										1	WATER
2	"	0900		X		JSL EB005	11	3	1	1	2	1	2	1				2	"
3	"	1220	X		X	JSL ~~SB~~ 074 0-3"	5	2	(1)	(1)	1							3	SOIL
4	"	1225	X		X	JSL 074 (5-6')	5	2	(1)	(1)	1							4	SOIL - ABOVE W.T.
5	"	1300	X		X	JSL 077 0-3"	5	2	(1)	(1)	1							5	SOIL -
6	"	1305	X		X	JSL 077 (4-5)	5	2	(1)	(1)	1							6	SOIL - ABOVE W.T.
7	"	1340	X		X	JSL 053 0-3"	1			1								7	SOIL
8	"	1345	X		X	JSL 053 (4-6')	5	2	(1)	(1)	1							8	SOIL - ABOVE W.T.
9	"	1355	X		X	JSL 081 0-3"	5	2	(1)	(1)	1							9	SOIL
10	"	1400	X		X	JSL 081 (3-5')	5	2	(1)	(1)	1							10	SOIL - ABOVE W.T.

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
PAT CRAWE MIKE JAYNES / RANDY HOLLOWAY	3/7/92 1600	Michael O. Jaynes	3/7/92 1600
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: Bryan Hance	DATE/TIME 3-9-92 1000	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 1924253962

HAZWRAP/NEESA (Y) N 3H; QC LEVEL 1 2 (3); COC Y; ICE Y; ANA REQ Y; TEMP 8°C; CUST SEAL Y; Ph; SAMPLE COND good

REMARKS: * TCL VOCs ARE GRAB SAMPLES AT DEPTH, NOT COMPOSITE

ENTERED INTO LIMS ____ COC REVIEWED ____

000937

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PAGE 1 OF 5 (6 COOLERS)

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX OU2

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST BONNELEY BUILDING TALLAHASSEE, FL 32301 1-800-466-5073

FOR LAB USE ONLY: LAB# 32384; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

ANALYSES REQUESTED

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD - 22L + 22B	DIOXIN - FURANS 8280				LAB ID	REMARKS
1	3/7/92	1530	X		X	JSL 072 (0-3")	5	2	(X)	(X)	1							-1	SOIL
2	"	1550	X		X	JSL 073 (0-3")	5	2	(X)	(X)	1							-2	"
3	"	1620	X		X	JSL 011 (0-3")	1			1								-3	"
4	"	1730	X		X	JSL 013 (0-3")	1			1								-4	"
5	"	1535	X		X	JSL 072 (5-7')	5	2	(X)	(X)	1							-5	SOIL - ABOVE W.T.
6	"	1600	X		X	JSL 073 (4-6')	5	2	(X)	(X)	1							-6	" " "
7	"	1620	X		X	JSL 011 (2-4')	5	2	(X)	(X)	1							-7	SOIL
8	"	1740	X		X	JSL 013 (2-4')	5	2	(X)	(X)	1							-8	"
9	3/8/92	0900	X		X	JSL 024 (0-3")	1			1								-9	"
10	"	0905	X		X	JSL 024 (2-4')	5	2	(X)	(X)	1							-10	"
11	"	0840	X		X	JSL 022 (0-3")	1			1								-11	"
12	"	0842	X		X	JSL 022 (2-4')	5	2	(X)	(X)	1							-12	"
13	"	1018	X		X	JSL 026 (0-3")	1			1								-13	"
14	"	1022	X		X	JSL 026 (2-4')	5	2	(X)	(X)	1							-14	"
15	"	1000	X		X	JSL 052 (0-3")	1			1								-15	"

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
RANDY HOLLOWAY / PAT CRAINE	3/7/92 - 3/8/92	[illegible]	3/9/92 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [illegible]	DATE/TIME 3/10/92 0930	SAMPLE SHIPPED VIA UPS BUS FED-EX HAND OTHER ____	AIR BILL# 1924253951

HAZWRAP/NEESA (Y) N

QC LEVEL 1 2 3 H

COC Y ICE Y

ANA REQ Y TEMP 5°C

CUST SEAL Y Ph —

SAMPLE COND. Good

REMARKS: * TCL VOCs FOR SOIL ARE GRAB SAMPLES [illegible] NOT COMPOSITE

ENTERED INTO LIMS ____ REVIEWED ____

001435

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PAGE 2 OF 5

(6 COOLERS)

PROJECT NUMBER	PROJECT NAME	CLIENT ADDRESS AND PHONE NUMBER	FOR LAB USE ONLY
7555-09	NAS JAX OU1	2590 EXECUTIVE CENTER CIRCLE EAST BERKELEY BUILDING TALLAHASSEE, FL. 32301 1-800-462-3073	LAB# 32384
CLIENT NAME: ABB-ES			LAB#
PROJECT MANAGER: GREG BROWN	COPY TO: GREG BROWN		PROJECT NO.
REQUESTED COMP. DATE	SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ___		ACK / VERIFIED
			QUOTE# / BS
			NO. OF SAMP / PG / OF

ANALYSES REQUESTED

#	STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA BETA RAD-226+228	DIOXIN-FURANS 8280				LAB ID	REMARKS
16	~~1~~	3/8/92	1005	X		X	JSL 052 (1-2')	5	2	(/)		(/)		/					-16	SOIL - ABOVE W.T.
17	~~2~~	"	0938	X		X	JSL 050 (0-3")	1			/								-17	SOIL
18	~~3~~	"	0945	X		X	JSL 050 (2-4')	5	2	(/)		(/)		/					-18	"
19	~~4~~	"	1032	X		X	JSL 066 (0-3")	5	2	(/)		(/)		/					-19	"
20	~~5~~	"	1035	X		X	JSL 066 (2-4')	5	2	(/)		(/)		/					-20	"
21	~~6~~	"	1105	X		X	JSL [illegible] (0-3")	5	2	(/)		(/)		/					-21	SOIL SAMPLE AT W.T.
22	~~7~~	"	1415	X		X	JSL 096 (0-3")	6	2	(/)		(/)		/	/				-22	SOIL
23	~~8~~	"	1415	X		X	JSL RP002 (0-3")	6	2	(/)		(/)		/	/				-23	"
24	~~9~~	"	1415	X		X	JSL MS002 (0-3")	6	2	(/)		(/)		/	/				-23	"
25	~~10~~	"	1415	X		X	JSL MSD002 (0-3")	6	2	(/)		(/)		/	/				-23	"
26	~~11~~	"	1415	X		X	JSL 096 (3-4')	6	2	(/)		(/)		/	/				-24	* SOIL - ABOVE W.T
27	~~12~~	"	1415	X		X	JSL RP003 (3-4')	6	2	(/)		(/)		/	/				-25	* " " "
28	~~13~~	"	1415	X		X	JSL MS003 (3-4')	6	2	(/)		(/)		/	/				-25	* " " "
29	~~14~~	"	1415	X		X	JSL MSD003 (3-4')	6	2	(/)		(/)		/	/				-25	* " " "

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
RANDY HOLLOWAY/PAT CRAINE	3/8/92	[signature]	3/9/92 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [signature]	DATE/TIME 3-10-92 0930	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ___	AIR BILL# 1724 25 39 51

HAZWRAP/NEESA (Y) N

QC LEVEL 1 2 3 H

COC Y | ICE Y

ANA REQ Y | TEMP 5°C

CUST SEAL Y | Ph —

SAMPLE COND. Good

REMARKS * TCL VOCs FOR SOIL ARE GRAB SAMPLES AT DEPTH, NOT COMPOSITE

ENTERED INTO LIMS ___ COC REVIEWED ___

001436

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX OU1

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: KATHY LUKE, GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST, BERKELEY BUILDING, TALLAHASSEE, FL. 32301 1-800-462-3073

ANALYSES REQUESTED

FOR LAB USE ONLY: LAB# ~~32396~~ AFS; LAB# 32397; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 625/8270	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA + BETA RAD - 226 + 228	DIOXIN + FURANS 8280				LAB ID	REMARKS
1	3/10/92	0810	X		X	JSL 012 (0-3")	1			1								1	SOIL
2	"	0822	X		X	JSL 014 (0-3")	1			1								2	"
3	"	0835	X		X	JSL 015 (0-3")	1			1								3	"
4	"	0835	X		X	JSL 016 (0-3")	1			1								4	"
5	"	0848	X		X	JSL 017 (0-3")	1			1								5	"
6	"	0855	X		X	JSL 018 (0-3")	1			1								6	"
7	"	0856	X		X	JSL 019 (0-3")	1			1								7	"
8	"	0918	X		X	JSL 020 (0-3")	1			1								8	"
9	"	0922	X		X	JSL 021 (0-3")	1			1								9	"
10	"	0941	X		X	JSL 023 (0-3")	1			1								10	"
11	"	0946	X		X	JSL 025 (0-3")	1			1								11	"
12	"	1017	X		X	JSL 028 (0-3")	1			1								12	"
13	"	0955	X		X	JSL 029 (0-3")	1			1								13	"
14	"	1020	X		X	JSL 033 (0-3")	1			1								14	"
15	"	1030	X		X	JSL 042 (0-3")	1			1								15	"

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
RANDY HOLLOWAY / PAT CRAINE	3/10/92	Michael O. Joyner	3/10/92 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [signature]	DATE/TIME 3/11/92 0930	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 1924253940

HAZWRAP/NEESA (Y) N; QC LEVEL 1 2 (3); COC Y; ICE Y; ANA REQ Y; TEMP; CUST SEAL Y; Ph; SAMPLE COND. GOOD

REMARKS: *TCL VOCs FOR SOIL SAMPLES ARE GRAB SAMPLES, NOT COMPOSITE

ENTERED INTO LIMS ____ QC REVIEWED ____

001621

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX OU1

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: KATHY LUKE, GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST, BERKELEY BUILDING, TALLAHASSEE, FL 32301 1-800-462-3073

ANALYSES REQUESTED

FOR LAB USE ONLY: LAB# 32397; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD-226+228	DIOXIN + FURANS 8280				LAB ID	REMARKS
16	3/10/92	1034	X		X	JSL 045 (0-3")	1			1								16	SOIL
17	"	1156	X		X	JSL 051 (0-3")	1			1								17	"
18	"	1155	X		X	JSL 088 (0-3")	5	2	(1)		(1)		1					18	"
19	"	1150	X		X	JSL 089 (0-3")	5	2	(1)		(1)		1					19	"
20	"	1137	X		X	JSL 091 (0-3")	5	2	(1)		(1)		1					20	"
21	"	1135	X		X	JSL 092 (0-3")	5	2	(1)		(1)		1					21	"
22	"	1115	X		X	JSL 093 (0-3")	5	2	(1)		(1)		1					22	"
23	"	1118	X		X	JSL 094 (0-3")	5	2	(1)		(1)		1					23	"
24	"	1400	X		X	JSL 063 (0-3")	5	2	(1)		(1)		1					24	"
25	"	1350	X		X	JSL 064 (0-3")	5	2	(1)		(1)		1					25	"
26	"	1350	X		X	JSL RP009 (0-3")	1			1								26	"
27	"	1415	X		X	JSL 101 (0-3")	1			1								27	"
28	"	1415	X		X	JSL RP010 (0-3")	1			1								28	"
29	"	1410	X		X	JSL 102 (0-3")	1			1								29	"
30	"	1402	X		X	JSL 103 (0-3")	1			1								30	"

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
RANDY HOLLOWAY / PAT CRANE	3/10/92	Michael O Joyner	3/10/92 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [signature]	DATE/TIME 3/11/92 0930	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 1924253940

HAZWRAP/NEESA (Y) N

QC LEVEL 1 2 (3)

COC Y | ICE Y

ANA REQ Y | TEMP

CUST SEAL Y | Ph

SAMPLE COND. COOD

REMARKS * TCL VOC FOR SOIL ARE GRAB SAMPLES, NOT COMPOSITE

ENTERED INTO LIMS ____ COC REVIEWED ____

001622

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX OU2

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: KATHY LUKE, GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST, BANKSLEY BUILDING, TALLAHASSEE, FL. 32301 1-800-462-3073

FOR LAB USE ONLY: LAB# 32397; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD-226+228	DIOXIN + FURANS 8280				LAB ID	REMARKS
31	3/10/92	0830		X		JSL EB007	10	3	1	1	1	1	2	1				31	WATER
32	"			X		JSL TB012	3	3										32	"

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
RANDY HOLLOWAY / PAT CRAWE	3/10/92	Michael O. Joyner	3/10/92 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: Allen Smith	DATE/TIME 3/11/92 0930	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 1924253940

HAZWRAP/NEESA (Y) N; QC LEVEL 1 2 (3); COC Y; ICE Y; ANA REQ Y; TEMP; CUST SEAL Y; Ph; SAMPLE COND. GOOD

REMARKS: *TCL VOC. FOR SOIL ARE GRAB SAMPLES. NOT COMPOSITE

ENTERED INTO LIMS; COC REVIEWED

001623

CH2M HILL QUALITY ANALYTICS (3 COOLERS) PAGE 1 OF 4

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX OU1

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST, BERKLEY BLDG., TALLAHASSEE, FL. 32301 1·800·462·3073

FOR LAB USE ONLY: LAB# 32408; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

ITEM NO. ~~STA NO.~~	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCS 8249/624	BNA 8270/625	PCB/PEST 8080/608	TAL METALS	CYANIDE	ALPHA, BETA RAD 226, 228				LAB ID	REMARKS
1	3/11/92	0830	X		X	JSL 068 (0-3")	5	2	(1)	(1)	1						-1	SOIL
2		0820	X		X	JSL 070	5	2	(1)	(1)	1						-2	
3		0915	X		X	JSL 085	5	2	(1)	(1)	1						-3	
4		0835	X		X	JSL 104	1			1							-4	
5		0835	X		X	JSL 105	1			1							-5	
6		0835	X		X	JSL 106	1			1							-6	
7		0910	X		X	JSL 107	1			1							-7	
8		0940	X		X	JSL 108	1			1							-8	
9		0935	X		X	JSL 109	1			1							-9	
10		0945	X		X	JSL 110	1			1							-10	
11		0930	X		X	JSL 111	1			1							-11	
12		0930	X		X	JSL 113	1			1							-12	
13		0910	X		X	JSL 114	1			1							-13	
14		0918	X		X	JSL 115	1			1							-14	
15		0925	X		X	JSL 116	1			1							-15	

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
CHUCK GOODWIN, RANDY HOLLOWAY/PAT CRANE	03/11/92	[signature]	1720 PM 3-11-92
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [signature]	DATE/TIME 3-12-92 0930	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 3861626333

HAZWRAP/NEESA (Y) N; QC LEVEL 1 2 3 H; COC Y; ICE Y; ANA REQ Y; TEMP 6°C; CUST SEAL Y; Ph; SAMPLE COND. Good

REMARKS * TCL VOCS FOR SOIL ARE GRAB SAMPLES AT DEPTH, NOT COMPOSITE

ENTERED INTO LIMS ____ COC REVIEWED ____

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

(3 COOLERS)

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX OU1

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST BERKLEY BLDG. TALLAHASSEE, FL. 32301 1-800-462-3073

FOR LAB USE ONLY: LAB# 32408 / 32415

LAB#

PROJECT NO.

ACK | VERIFIED

QUOTE# | BS

NO. OF SAMP | PG | OF

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	TCL VOCS 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL METALS	CYANIDE	ALPHA, BETA RAD 226, 228				LAB ID	REMARKS
16	3/11/92	0930	X		X	JSL 117 (0-3")	1			1							-16	SOIL 32408
17		1000	X		X	JSL 118	1			1							-17	
18		1000	X		X	JSL 119	1			1							-18	
19		0957	X		X	JSL 120	1			1							-19	
20		0950	X		X	JSL 121	1			1							-20	
21		0951	X		X	JSL 122	1			1							-21	-1 32415
22		0950	X		X	JSL 123	1			1							-22	-2
23		0920	X		X	JSL 124	1			1							-23	-3
24		0915	X		X	JSL RP007	5	2	(1)		(1)		1				-24	-4
25		0805	X		X	JSL RP011	1			1							-25	-5
26		1050	X		X	JSL 075	5	2	(1)		(1)		1				-26	-6
27		1100	X		X	JSL 078	1			1							-27	-7
28		1110	X		X	JSL 080	5	2	(1)		(1)		1				-28	-8
29		1110	X		X	JSL RP006	5	2	(1)		(1)		1				-29	-9
30		1110	X		X	JSL MS006	5	2	(1)		(1)		1				-29	MS

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
CHUCK GOODWIN, RANDY HOLLOWAY/PAT CRANE	03/11/92	Kathy Dice	3-11-92 1720pm
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [illegible]	DATE/TIME 3-12-92 0930	SAMPLE SHIPPED VIA: UPS BUS FEDEX HAND OTHER ____	AIR BILL# 3 861626 333

HAZWRAP/NEESA (Y) N

QC LEVEL 1 2 3

COC | ICE

ANA REQ | TEMP

CUST SEAL | Ph

SAMPLE COND.

REMARKS: TCL VOCS FOR SOIL ARE GRAB SAMPLES AT DEPTH NOT COMPOSITE.

ENTERED INTO LIMS | CO REVIEWED

PAGE 2 OF 4

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

(3 COOLERS)

PROJECT NUMBER	PROJECT NAME	CLIENT ADDRESS AND PHONE NUMBER	FOR LAB USE ONLY
7555-09	NAS JAX OU1	2590 EXECUTIVE CENTER CIRCLE EAST BERKLEY BLDG. TALLAHASSEE, FL. 32301 1-800-462-3073	LAB# 32408 / 32415
CLIENT NAME: ABB-ES			LAB#
PROJECT MANAGER: GREG BROWN	COPY TO: GREG BROWN		PROJECT NO.
REQUESTED COMP. DATE	SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ___		ACK / VERIFIED
			QUOTE# / BS
			NO. OF SAMP / PG / OF

ANALYSES REQUESTED

STA NO.	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCS 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL METALS	CYANIDE	ALPHA, BETA RAD 226, 228	LAB ID	REMARKS
16	3/11/92	0930	X		X	JSL 117 (0-3")	1			1				-16	SOIL 32408
17		1000	X		X	JSL 118	1			1				-17	
18		1000	X		X	JSL 119	1			1				-18	
19		0957	X		X	JSL 120	1			1				-19	
20		0950	X		X	JSL 121	1			1				-20	
21		0951	X		X	JSL 122	1			1				-21	-1 32415
22		0950	X		X	JSL 123	1			1				-22	-2
23		0920	X		X	JSL 124	1			1				-23	-3
24		0915	X		X	JSL RP007	5	2	(1)		(1)		1	-24	-4
25		0805	X		X	JSL RP011	1			1				-25	-5
26		1050	X		X	JSL 075	5	2	(1)		(1)		1	-26	-6
27		1100	X		X	JSL 078	1			1				-27	-7
28		1110	X		X	JSL 080	5	2	(1)		(1)		1	-28	-8
29		1110	X		X	JSL RP006	5	2	(1)		(1)		1	-29	-9
30		1110	X		X	JSL MS006	5	2	(1)		(1)		1	-29	MO

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME	
CHUCK GOODWIN, SANDY HOLLOWAY/PAT CRANE	03/11/92	Kathy Luke	3-11-92 1720pm	HAZWRAP/NEESA (Y) N
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	QC LEVEL 1 2 3
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	COC / ICE
				ANA REQ / TEMP
				CUST SEAL / Ph
				SAMPLE COND.
RECEIVED BY LAB: [signature]	DATE/TIME 3-12-92 0930	SAMPLE SHIPPED VIA: UPS BUS (FED-EX) HAND OTHER ___	AIR BILL# 3 861626 333	

REMARKS * TCL VOCS FOR SOIL ARE GRAB SAMPLES AT DEPTH NOT COMPOSITE.

ENTERED INTO LIMS ___ COC REVIEWED ___

PAGE 3 OF 4

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

(3 COOLERS)

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX 041

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST, BERKLEY BLDG., TALLAHASSEE, FL 32301 1-800-462-3073

ANALYSES REQUESTED

FOR LAB USE ONLY: LAB# 32415/32416; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

ITEM NO. ~~STA.P. NO.~~	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	* TCL VOCS 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL METALS	CYANIDE	ALPHA, BETA RAD 226, 228	DIOXIN, FURANS				LAB ID	REMARKS
31	3/11/92	1110	X		X	JSL MSD006 (0-3)	5	2	(1)		(1)		1					-29	009 SOIL
32		1125	X		X	JSL 086	5	2	(1)		(1)		1					-30	-10 32415
33		1125	X		X	JSL RP008	5	2	(1)		(1)		1					-31	-11
34		1130	X		X	JSL 095	5	2	(1)		(1)		1					-32	-12
35		1040	X		X	JSL 112	1			1								-33	-13
36		1040	X		X	JSL RP012	1			1								-34	-14
37		1045	X		X	JSL 125	1			1								-35	-15
38		1050	X		X	JSL 126	1			1								-36	-16
39		1040	X		X	JSL 127	1			1								-37	-17
40		1108	X		X	JSL 128	1			1			Not recieved					-38	-18
41		1400	X		X	JSL 069 0-3"	6	2	(1)		(1)		1	1				-39	-19
42		1400	X		X	JSL 069 1'-2'	6	2	(1)		(1)		1	1				-40	-20
43		1400	X		X	JSL RP013 0-3	1			1								-41	-1 32416
44		1410	X		X	JSL 090 0-3"	5	2	(1)		(1)		1					-42	-2
45			X		X	JSL 084 0-3"	5	2	(1)		(1)		1					-43	-3

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
CAUCK GOODWIN, RANDY HOLLOWAY/PAT CRANE	03/11/92	[signature]	3-11-92 1720 P.M.
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: [signature]	DATE/TIME 3-12-92 0930	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 3861626333

HAZWRAP/NEESA (Y) N

QC LEVEL 1 2 3

COC | ICE

ANA REQ | TEMP

CUST SEAL | Ph

SAMPLE COND

REMARKS: TCL VOCS FOR SOIL ARE GRAB SAMPLES AT DEPTH. NOT COMPOSITE.

ENTERED INTO LIMS ____ COC REVIEWED ____

011112

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

(3 COOLERS)

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX OU1

CLIENT NAME: ABB-ES

PROJECT MANAGER: GREG BROWN

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST BERKLEY BLDG. TALLAHASSEE, FL 32301 1-800-462-3073

ANALYSES REQUESTED

ITEM NO ~~STAT NO.~~	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	*TCL VOCS 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL METALS	CYANIDE	ALPHA, BETA RAD 226, 228	DIOXIN, FURANS				LAB ID	REMARKS
46	3/11/92	1430	X		X	JSL 076 0-3"	5	2	(1)		(1)		1						SOIL
47	↓	1436	X		X	JSL 071 0-3"	5	2	(1)		(1)		1						↓
48		1445	X		X	JSL 067 0-3"	5	2	(1)		(1)		1						
49		1440	X		X	JSL 065 0-3"	5	2	(1)		(1)		1						
50		1430	X		X	JSL EB008	10	3	1	1	2	1	2	1					WATER
51	↓		X		X	JSL TB013	3	3											WATER
~~52~~			X		X	JSL													

FOR LAB USE ONLY: LAB#; LAB#; PROJECT NO.; ACK; VERIFIED; QUOTE#; BS; NO. OF SAMP; PG; OF

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
CHUCK GOODWIN, RANDY HOLLOWAY, PAT CRANE	03/11/92	Kathy Lake	3-11-92 1720 P.M.
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB:	DATE/TIME	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 3861626333

HAZWRAP/NEESA (Y) N; QC LEVEL 1 2 3; COC; ICE; ANA REQ; TEMP; CUST SEAL; Ph; SAMPLE COND

REMARKS * TCL VOCS FOR SOIL ARE GRAB SAMPLES AT DEPTH NOT COMPOSITE.

ENTERED INTO LIMS ____ COC REVIEWED ____

M.S Soil
Ext Paul
Met Tim Mark
DIG Terry

Lewis

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD Ack letter copy only

PROJECT NUMBER: LRD33180.XYJA
PROJECT NAME: 7550-09 NASJAX OU1
CLIENT NAME: ABB Environmental Services, Inc
PROJECT MANAGER: Mr. Phil Georgarian
COPY TO: Mr. Tom Emenhiser, Mr. Greg Brown
REQUESTED COMP. DATE: 4-9-92
SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER:

ANALYSES REQUESTED

FOR LAB USE ONLY
LAB# ~~[illegible]~~ 32422
LAB#
PROJECT NO.:
ACK [illegible] VERIFIED mlc 3/16/92
QUOTE# BS
NO. OF SAMP. PG OF

STA NO.	DATE	Desc3 TIME	COMP	GRAB	SOIL	Desc1 SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	TCL VOCs 8240	BNAs 8270	Pest/PCB 8080	TAL/TCL Metals	Cyanide	GROSS ALPHA/BETA Radium 226/228	Dioxin 8280				LAB ID	Desc2 REMARKS
21	3/8/92	1705	X		X	JSL 087 0-3"	5	2	(	/	)	(	/	)	1			-1	So: Sample AT W.T.
22		1415 0930	X		X	096 0-3"	6	2	(	/	)	(	/	)	1	1		-2	Help request GKSAB
23		1415	X		X	RP002 0-3"	6	2	(	/	)	(	/	)	1	1		-3	RA226 RA228 to ES&E
24			X		X	MS002 0-3"	6	2							1	1		-MØ3	DX31 to Enseco NFO
25			X		X	MSD002 0-3"	6	2							1	1		-DØ3	
26			X		X	JSL 096 2-4'	6	2							1	1		-4	- Above W.T.
27			X		X	RP003 2-4'	6	2							1	1		-5	
28			X		X	MS003 2-4'	6	2							1	1		-MØ5	
29			X		X	MSD003 2-4	6	2							1	1		-DØ5	
30		1210	X		X	JSL 27001 0-3"	5	2							1			-6	
31		1215	X		X	27001 2-4'	5	2							1			-7	Batch Comment: VOAs
32		1225	X		X	27002 0-3"	5	2							1			-8	to include Ethylacetate
33		1228	X		X	27002 2-4'	5	2							1			-9	& N Butyl Acetate
34		1236	X		X	27003 0-3"	5	2							1			-10	
35		1241	X		X	27003 2-4'	5	2							1			-11	

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
Randy Holloway / Pat Crane	3-7/3-8-92	Michael D. Joyner	3/9/92 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
REC[illegible] BY LAB: [illegible]	DATE/TIME 3-10-92 0930	SAMPLE SHIPPED VIA UPS BUS [illegible]-EX HAND OTHER ____	AIR BILL# 1924253951 3/17/92

HAZWRAP/NEESA Y N
QC LEVEL 1 2 (3) (4)
COC (Y) ICE Y
ANA REQ Y TEMP 5°C
CUST SEAL Y Ph —
SAMPLE COND. Good

ENTERED INTO LIMS NFO [illegible] VIEWED [illegible] 3/16/92 1400

001949

Lyons

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME	CLIENT ADDRESS AND PHONE NUMBER	FOR LAB USE ONLY
	75509 NAS JAX OU 1		LAB# 32422
CLIENT NAME: ABB Environmental Services, Inc			LAB#
PROJECT MANAGER: Phil Georgarion	COPY TO: Gray Brown		PROJECT NO.
REQUESTED COMP. DATE	SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ___		ACK / VERIFIED
			QUOTE# / BS
			NO. OF SAMP / PG / OF

ANALYSES REQUESTED

STA NO.	DATE	Desc3 TIME	COMP	GRAB	SOIL	Desc1 SAMPLE DESCRIPTIONS (12 CHARACTERS)	# OF CONTAINERS	TCL VOCs 8240	BNA 8270	PEST/PCB 8080	TAL/TCL Metals	Cyanide	Gross Alpha/Beta Radium 226/228	Dioxin 8280				LAB ID	Desc2 REMARKS
36	3/8/92	1247	X		X	JSL 27004 0-3"	5	2	(1)		(1)		1					-12	Soil
37		1252	X		X	27004 2-4'												-13	
38		1257	X		X	27005 0-3"												-14	
39		1300	X		X	27005 2-4"												-15	
40		1308	X		X	27006 0-3"												-16	
41		1310	X		X	27006 2-4'												-17	
42		1400	X		X	27007 0-3"												-18	
43		1410	X		X	27007 2-4'												-19	
44		1412	X		X	27008 0-3"												-20	
45	3/8/92	1415	X		X	JSL ~~096~~ DUP003 2-4"					X	X	X					-PØ5	- ABOVE W.T.
46	3/8/92	1415	X		X	JSL DUP 002 2-4					X	X	X					-PØ3	
47						Method Blank					X	X	X					-ZS1	

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME	HAZWRAP/NEESA Y N
				QC LEVEL 1 2 3
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	COC / ICE
				ANA REQ / TEMP
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	CUST SEAL / Ph
				SAMPLE COND.
RECEIVED BY LAB:	DATE/TIME	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ___	AIR BILL#	

REMARKS

ENTERED INTO LIMS / COC REVIEWED

001950

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD

PAGE 5 OF 5

(6 COOLERS)

PROJECT NUMBER	PROJECT NAME
7555-09	NAS JAX OU1

CLIENT NAME: ABB-ES

PROJECT MANAGER: Phil Georgariou

COPY TO: GREG BROWN

REQUESTED COMP. DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST BERKELEY BUILDING TALLAHASSEE, FL. 32301 1-800-462-3073

ANALYSES REQUESTED

FOR LAB USE ONLY: LAB# ____ LAB# 32423 PROJECT NO. ____ ACK ____ VERIFIED ____ QUOTE# ____ BS ____ NO. OF SAMP ____ PG ____

STA NO.	~~DATE~~ Desc 4	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS) Desc 1	# OF CONTAINERS	*TCL VOCs 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD - 226 + 228	DIOXIN + FURANS 8280		Matrix	LAB ID	REMARKS Desc 2	Desc
60	3/8/92	desc3		X		JSL TB011	3	3								Water	-14	WATER Travel	Bla
61	3/9/92	1035	X		X	JSL 032 (0-3")	1			1						Soil	-15	SOIL	
62	"	1040	X		X	JSL 032 (2-4')	5	2	(1)		(1)		1				-16	"	
63	"	1055	X		X	JSL 041 (0-3")	1			1							-17	"	
64	"	1100	X		X	JSL 041 (3-4')	5	2	(1)		(1)		1				-18	"	
65	"	1505	X		X	JSL 048 (0-3")	1			1							-19	"	
66	"	1510	X		X	JSL RP005 (~~2-4'~~ 1-2')	5	2	(1)		(1)		1				-20	SOIL - ABOVE W.T	
67	"	1510	X		X	JSL MS005 (~~2-4'~~ 1-2')	5	2	(1)		(1)		1				-M20	" " "	
68	"	1510	X		X	JSL MSD005 (~~2-4'~~ 1-2')	5	2	(1)		(1)		1				-D20	" " "	
69	"	1510	X		X	JSL 048 (1-2')	5	2	(1)		(1)		1				-21	" " "	
70	3/7/92			X		JSL TB007	3	3								Water	-22	WATER Travel	B
3/9/92	~~Desc 4~~	1455				JSL DUP004 2-4'					X	X	X			Soil	-P08	Soil	
	3/9/92	1510				JSL DUP005 1-2'					X	X	X			"	-P20	Soil	
						Method Blank					X	X	X				-25		
						Method Blank					X	X	X				-ZW		

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
RANDY HOLLOWAY/PAT CRAINE	3/9/92	Michael O. Joyner	3/9/92 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: Bryan Hand	DATE/TIME 3-10-92 0930	SAMPLE SHIPPED VIA UPS [illegible]S FED-EX HAND OTHER ____	AIR BILL# 192425 [illegible]51

HAZWRAP/NEESA (Y) N

QC LEVEL 1 2 3 N

COC Y ICE

ANA REQ Y TEMP

CUST SEAL Y Ph

SAMPLE COND. Good

ENTERED [illegible] COC

[illegible] AT DEPTH NOT COMPOSITE

001715

GRD 33180.XY.5A

M.S. Paul
Ex Jim
Me Mark
DIG Terry
W.C.

PAGE 4 OF 5

(6 COOLERS)

CH2M HILL QUALITY ANALYTICS

CHAIN OF CUSTODY RECORD Ack letter Copy only

PROJECT NUMBER	PROJECT NAME
7555-09	7555-09 NAS JAX OU1

CLIENT NAME: ABB-ES Environmental Services Inc.

PROJECT MANAGER: Mr. Phil Georgarion

COPY TO: Mrs Tom Emenhiser, Mr GREG BROWN

REQUESTED COMP. DATE: 4-9-92

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☐ OTHER ____

CLIENT ADDRESS AND PHONE NUMBER: 2590 EXECUTIVE CENTER CIRCLE EAST, BERKELEY BUILDING, TALLAHASSEE, FL. 32301 1-800-462-3073

ANALYSES REQUESTED

FOR LAB USE ONLY: LAB# 32423; LAB#; PROJECT NO.; ACK; VERIFIED Mlc 3/16/92; QUOTE#; BS; NO. OF SAMP; PG; OF

STA NO.	DATE	TIME (Desc 3)	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS (12 CHARACTERS) (Desc 1)	# OF CONTAINERS	* TCL VOCs 8240/624	BNA 8270/625	PCB/PEST 8080/608	TAL/TCL METALS	CYANIDE	ALPHA, BETA RAD-226 + 228	DIOXIN + FURANS 8280		Matrix	LAB ID	REMARKS (Desc 2)
45	3/8/92	1415	X		X	JSL 27 008 (2-4')	5	2	(/)		(/)		1			Soil	-1	SOIL Help Request GRSA
46	"	1422	X		X	JSL 27 009 (0-3")	5	2	(/)		(/)		1				-2	" RA226 RA228 to ES &
47	"	1425	X		X	JSL 27 009 (2-4')	5	2	(/)		(/)		1				-3	" DXW1 to Enseco
48	"	1430	X		X	JSL 27 010 (0-3")	5	2	(/)		(/)		1				-4	" (Cal Analytical)
49	"	1435	X		X	JSL 27 010 (2-4')	5	2	(/)		(/)		1				-5	" Batch Comment VOA
50	"	1450	X		X	JSL 27 011 (0-3")	5	2	(/)		(/)		1				-6	" to include Ethylacetate
51	"	1455	X		X	JSL 27 011 (2-4')	5	2	(/)		(/)		1				-7	" & N Butyl Acetate
52	"	1455	X		X	JSL 27 AP004 (2-4')	5	2	(/)		(/)		1				-8	"
53	"	1455	X		X	JSL 27 MS004 (2-4')	5	2	(/)		(/)		1				-MØ8	"
54	"	1455	X		X	JSL 27 MSD004 (2-4')	5	2	(/)		(/)		1				-DØ8	" SW/IW
55	"	0800		X		JSL EB006	10	3	1	1	1	1	2	1		Water	-9	WATER Equip Blank (Desc 3)
56	"	(Desc 4)		X		JSL TB006	3	3.			PA42	PA29	PA42				-10	" Travel Blank
57	"			X		JSL TB008	3	3.									-11	"
58	"			X		JSL TB009	3	3.									-12	"
59	"			X		JSL TB010	3	3.									-13	"

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME
RANDY HOLLOWAY / PAT CRAINE	3/8/92	Michael O. Joyner	3/9/92 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB: Susan Howe	DATE/TIME 3-10-92 0930	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL# 1924253951

HAZWRAP/NEESA Y N; QC LEVEL 1 2 3 4; COC Y; ICE Y; ANA REQ Y; TEMP 5°C; CUST SEAL Y; Ph; SAMPLE COND. Good

ENTERED 3/17/92 COC 1505

001714

Appendix C-1
Volatile Organic Compounds Analytical Summary

APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,2-Dichloro-ethane	1,2-Dichloro-ethene	1,2-Dichloro-propane	2-Butanone	2-Hexanone
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*24.3 x 10E6 ug/kg*	*3.2 x 10E3 ug/kg*	*11.2 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*1.1 x 10E3 ug/kg*	*7.0 x 10E3 ug/kg*	*2.7 x 10E6 ug/kg*	*9.4 x 10E3 ug/kg*	*13.5 x 10E6 ug/kg*	---
SL011 2-4	<6	<6	<6	<6	<6	<6	<6	<6	**12** R	<12
SL013 2-4	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11
SL022 2-4	<770	<770	<770	<770	<770	<770	**14000**	<770	**1500** R	<1500
SL024 2-4	<6	<6	<6	<6	<6	<6	**1** J	<6	**12** R	<12
SL026 2-4	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11
SL032 2-4	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL034 9-11	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12
SL035 9-11	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12
SL039 10-12	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12
SL040 7.5-8.5 (c)	<820	<820	<820	<820	<820	<820	<820	<820	<1600	<1600
SL040 9-11	<7	<7	<7	<7	<7	<7	<7	<7	<13	<13
SL041 3-4	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12
SL043 5-7	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11
SL044 7-9	<770	<770	<770	**960**	<770	<770	**5300**	<770	**9400** J	<1500
SL044 7-9DL	<15000 R	<15000 R	<15000 R	<15000 R	<15000 R	<15000 R	**10000**	<15000 R	<31000 R	<31000 R
SL047 3-5	<760	<760	<760	<760	<760	<760	<760	<760	**1500** R	<1500
SL047 3-5DL	<3800 R	<3800 R	<3800 R	<3800 R	<3800 R	<3800 R	<3800 R	<3800 R	<7600 R	<7600 R
SL048 1-2	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12
SL050 2-4	<6	<6	<6	<6	<6	<6	<6	<6	**13** R	<13
SL052 1-2	<6	<6	<6	<6	<6	<6	<6	<6	**12** R	<12
SL053 4-6	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11
SL056_R 0-3"	<5	<5 UJ	<5	<5	<5	<5	<5	<5	<11	<11 UJ
SL057 0-3"	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<12 UJ	<12 UJ
SL057_R 0-3"	**6** R	**6** R	**6** R	**6** R	**6** R	**6** R	**6** R	**6** R	**12** R	**12** R
SL058 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11 UJ
SL059 0-3"	<6 UJ	<6 UJ	<6 UJ	<6	<6	<6	<6	<6 UJ	<13	<13 UJ

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
"J" Signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).

APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4-Methyl-2-Pentanone	Acetone	Benzene	Bromoform	Bromomethane	Carbon Disulfide	Carbon tetrachloride	Chloro-benzene	Chloro-ethane	Chloroform
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*13.5 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*22 1 x 10E3 ug/kg*	*81.0 x 10E3 ug/kg*	*378.0 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*4.9 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	---	*2.7 x 10E6 ug/kg*
SL011 2-4	<12	<12	<6	<6	<12	<6	<6	<6	<12 UJ	<6
SL013 2-4	<11	<12	<6	<6	<11	<6	<6	**2** J	<11 UJ	<6
SL022 2-4	<1500	**1200** J	<770	<770	<1500	<770	<770	**350** J	<1500	<770
SL024 2-4	<12	<20	<6	<6	<12	<6	<6	**14**	<12 UJ	<6
SL026 2-4	<11	<11	<6	<6	<11	<6	<6	<6	<11 UJ	<6
SL032 2-4	<11	<11	<6	<6	<11	<6	<6	<6	<11	<6
SL034 9-11	<12	<24	<6	<6	<12	<6	<6	<6	<12	<6
SL035 9-11	<12	<24 UJ	**3** J	<6	<12	**2** J	<6	<6	<12	<6
SL039 10-12	<12	<42 UJ	**7**	<6	<12	<6	<6	**6** J	<12	<6
SL040 7.5-8.5 (c)	<1600	**1600**	<820	<820	<1600	<820	<820	<820	<1600	<820
SL040 9-11	<13	<56 UJ	**7**	<7	<13	**2** J	<7	**11**	<13	<7
SL041 3-4	<12	<12	<6	<6	<12	<6	<6	<6	<12	<6
SL043 5-7	<11	<32 UJ	<6	**6** R	<11	<6	<6	**1** J	<11	<6
SL044 7-9	<1500	**2800** J	**570** J	<770	<1500	<770	<770	**6900**	<1500	<770
SL044 7-9DL	<31000 R	**42000**	<15000 R	<15000 R	<31000 R	<15000 R	<15000 R	**9100**	<31000 R	<15000 R
SL047 3-5	<1500	**930** J	**950**	<760	<1500	<760	<760	**78000** R	<1500	<760
SL047 3-5DL	<7600 R	**12000** J	**1800**	<3800 R	<7600 R	<3800 R	<3800 R	**140000**	<7600 R	<3800 R
SL048 1-2	<12	<12	<6	<6	<12	<6	<6	<6	<12	<6
SL050 2-4	<13	<15	<6	<6	<13	<6	<6	<6	<13 UJ	<6
SL052 1-2	<12	<12	<6	<6	<12	<6	<6	<6	<12 UJ	<6
SL053 4-6	<11	<31	<6	**6** R	<11	<6	<6	<6	<11	<6
SL056_R 0-3"	<11 UJ	<11	<5	<5	<11	**2** J	<5	<5 UJ	<11	<5
SL057 0-3"	<12 UJ	<12 UJ	<6 UJ	<6 UJ	<12 UJ	**4** J	<6 UJ	<6 UJ	<12 UJ	<6 UJ
SL057_R 0-3"	**12** R	**11** R	**6** R	**6** R	**12** R	**3** R	**6** R	**6** R	**12** R	**6** R
SL058 0-3"	<11	<11	<5	<5	<11	**1** J	<5	<5	<11	<5
SL059 0-3"	<13 UJ	<13	<6 UJ	<6 UJ	<13	**5** J	<6 UJ	<6 UJ	<13	<6

Notes:
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Chloro-methane	Dibromo-chloromethane	Dichloro-bromomethane	Ethyl acetate	Ethylbenzene	Methylene chloride	Styrene	Tetrachloro-ethene	Toluene	Trichloro-ethene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*49.2 x 10E3 ug/kg*	*7.6 x 10E3 ug/kg*	*4 9 x 10E3 ug/kg*	*243 0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*85.3 x 10E3 ug/kg*	*21.3 x 10E3 ug/kg*	*12.5 x 10E3 ug/kg*	*54.0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*
SL011 2-4	<12	<6	<6	<58	<6	<23	<6	<6	<6	<6
SL013 2-4	<11	<6	<6	<57	<6	<25	<6	**2** J	**2** J	**2** J
SL022 2-4	<1500	<770	<770	<7700	**710** J	<770	<770	<770	**7000**	<770
SL024 2-4	<12	<6	<6	<58	<6	<19	<6	<6	**1** J	<6
SL026 2-4	<11	<6	<6	<56	<6	<21	<6	<6	<6	<6
SL032 2-4	<18	<6	<6	<57	<6	<14	<6	<6	<6	<6
SL034 9-11	<12	<6	<6	<62	<6	<13	<6	<6	<6	<6
SL035 9-11	<12	<6	<6	<60	<6	<8	<6	<6	**1** J	<6
SL039 10-12	<12	<6	<6	<62	<6	<11	<6	<6	**5** J	**2** J
SL040 0-3" (c)	<1600	<820	<820	<8200	<820	<1500 UJ	<820	<820	**400** J	<820
SL040 9-11	<13	<7	<7	<67	**5** J	<9	<7	<7	**21**	**1** J
SL041 3-4	<31	<6	<6	<62	<6	<11	<6	<6	<6	**2** J
SL043 5-7	<11	<6	<6	<57	<6	<6	<6	<6	**14**	**6**
SL044 7-9	<1500	<770	<770	<7700	**30000**	**2700**	**2900**	**510** J	**74000** R	**62000** R
SL044 7-9DL	<31000 R	<15000 R	<15000 R	<150000 R	**40000**	**27000**	<15000 R	<15000 R	**490000**	**84000**
SL047 3-5	<1500	<760	<760	<7600	<760	<760	<760	<760	**620** J	<760
SL047 3-5DL	<7600 R	<3800 R	<3800 R	<38000 R	<3800 R	<6100 R	<3800 R	<3800 R	<3800 R	<3800 R
SL048 1-2	<12	<6	<6	<62	<6	<8	<6	<6	<6	<6
SL050 2-4	<13	<6	<6	<65	<6	<21	<6	<6	<6	<6
SL052 1-2	<12	<6	<6	<60	<6	<22	<6	**22**	<6	**7**
SL053 4-6	<11	<6	<6	<56	<6	<5	<6	<6	**1** J	<6
SL056_R 0-3"	<11	<5	<5	<54 UJ	<5 UJ	<28	<5 UJ	<5 UJ	<5 UJ	<5
SL057 0-3"	<12 UJ	<6 UJ	<6 UJ	<60 UJ	<6 UJ	<33 UJ	<6 UJ	<6 UJ	**2** J	<6 UJ
SL057_R 0-3"	**12** R	**6** R	**6** R	**60** R	**6** R	**55** R	**6** R	**6** R	**2** R	**6** R
SL058 0-3"	<11	<5	<5	<54	<5	<13	<5	<5	<5	<5
SL059 0-3"	<13	<6 UJ	<6 UJ	<64 UJ	<6 UJ	<37	<6 UJ	<6 UJ	**1** J	<6 UJ

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Vinyl Acetate	Vinyl chloride	Xylenes (total)	cis-1,3-Dichloro-propene	n-Butyl acetate	trans-1,3-Dichloro-propene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*270 0 x 10E6 ug/kg*	*0.3 x 10E3 ug/kg*	*540.0 x 10E6 ug/kg*	---	---	---
SL011 2-4	<12	<12	<6	<6	<58	<6
SL013 2-4	<11	<11	<6	<6	<57	<6
SL022 2-4	<1500	<1500	**4600**	<770	<7700	<770
SL024 2-4	<12	<12	<6	<6	<58	<6
SL026 2-4	<11	<11	<6	<6	<56	<6
SL032 2-4	<11	<11	**1** J	<6	<57	<6
SL034 9-11	<12	<12	<6	<6	<62	<6
SL035 9-11	<12	<12	<6	<6	<60	<6
SL039 10-12	<12	<12	**8**	<6	<62	<6
SL040 7 5-8 5 (c)	<1600	<1600	**400** J	<820	<8200	<820
SL040 9-11	<13	<13	**45**	<7	<67	<7
SL041 3-4	<12	<12	<6	<6	<62	<6
SL043 5-7	<11	<11	<6	<6	<57	<6
SL044 7-9	<1500	<1500	**130000** R	<770	<7700	<770
SL044 7-9DL	<31000 R	<31000 R	**210000**	<15000 R	<150000 R	<15000 R
SL047 3-5	<1500	<1500	**470** J	<760	<7600	<760
SL047 3-5DL	<7600 R	<7600 R	<3800 R	<3800 R	<38000 R	<3800 R
SL048 1-2	<12	<12	<6	<6	<62	<6
SL050 2-4	<13	<13	<6	<6	<65	<6
SL052 1-2	<12	<12	<6	<6	<60	<6
SL053 4-6	<11	<11	<6	<6	<56	<6
SL056_R 0-3"	<11	<11	**4** J	<5	<54 UJ	<5
SL057 0-3"	<12 UJ	<12 UJ	**6** J	<6 UJ	<60 UJ	<6 UJ
SL057_R 0-3"	**12** R	**12** R	**7** R	**6** R	**60** R	**6** R
SL058 0-3"	<11	<11	**3** J	<5	<54	<5
SL059 0-3"	<13 UJ	<13	**5** J	<6 UJ	<64 UJ	<6 UJ

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,2-Dichloro-ethane	1,2-Dichloro-ethene	1,2-Dichloro-propane	2-Butanone	2-Hexanone
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*24.3 x 10E6 ug/kg*	*3.2 x 10E3 ug/kg*	*11 2 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*1 1 x 10E3 ug/kg*	*7 0 x 10E3 ug/kg*	*2 7 x 10E6 ug/kg*	*9.4 x 10E3 ug/kg*	*13 5 x 10E6 ug/kg*	---
SL059_R 0-3"	6 R	6 R	6 R	6 R	6 R	6 R	6 R	6 R	13 R	13 R
SL060 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL061 0-3"	6 R	6 R	6 R	6 R	6 R	6 R	6 R	6 R	12 R	12 R
SL061_R 0-3"	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<6 UJ	<12 UJ	<12 UJ
SL062 0-3"	6 R	6 R	6 R	6 R	6 R	6 R	6 R	6 R	13 R	13 R
SL062_R 0-3"	<6	<6 UJ	<6	<6	<6	<6	<6	<6	<13	<13 UJ
SL063 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL064 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL065 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL066 0-3"	<6	<6	<6	<6	<6	<6	2 J	<6	11 R	<11
SL066 2-4	<5	<5	<5	<5	<5	<5	<5	<5	11 R	<11
SL067 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<13	<13
SL068 0-3" (c)	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<10 UJ	<10 UJ
SL068 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL068_R 0-3" (c)	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<10 UJ	<10 UJ
SL069 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12
SL069 1-2	<6	<6	<6	<6	<6	<6	<6	<6	<13	<13
SL070 0-3" (c)	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<10 UJ	<10 UJ
SL070 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL070_R 0-3"	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<10 UJ	<10 UJ
SL071 0-3"	<7	<7	<7	<7	<7	<7	<7	<7	<13	<13
SL072 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12
SL072 5-7	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12
SL073 0-3" (c)	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL073 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL073 4-6	<6	<6	<6	<6	<6	<6	<6	<6	12 R	<12

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2 The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4-Methyl-2-Pentanone	Acetone	Benzene	Bromoform	Bromomethane	Carbon Disulfide	Carbon tetrachloride	Chloro-benzene	Chloro-ethane	Chloroform
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*13.5 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*22.1 x 10E3 ug/kg*	*81.0 x 10E3 ug/kg*	*378.0 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*4.9 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	---	*2.7 x 10E6 ug/kg*
SL059_R 0-3"	**13** R	**8** R	**6** R	**6** R	**13** R	**4** R	**6** R	**6** R	**13** R	**6** R
SL060 0-3"	<11	<11	<5	<5	<11	**3** J	<5	<5	<11	<5
SL061 0-3"	**12** R	**12** R	**6** R	**6** R	**12** R	**1** R	**6** R	**6** R	**12** R	**6** R
SL061_R 0-3"	<12 UJ	<12 UJ	<6 UJ	<6 UJ	<12 UJ	**4** J	<6 UJ	<6 UJ	<12 UJ	<6 UJ
SL062 0-3"	**13** R	**13** R	**6** R	**6** R	**13** R	**2** R	**6** R	**6** R	**13** R	**6** R
SL062_R 0-3"	<13 UJ	<13	<6	<6	<13	**2** J	<6	<6 UJ	<13	<6
SL063 0-3"	<11	<11	<5	<5	<11	<5	<5	<5	<11	<5
SL064 0-3"	<11	<11	<6	<6	<11	<6	<6	<6	<11	<6
SL065 0-3"	<11	<6	<6	<6	<11	<6	<6	<6	<11	<6
SL066 0-3"	<11	<12	<6	<6	<11	<6	<6	<6	<11 UJ	<6
SL066 2-4	<11	<11	<5	<5	<11	<5	<5	**2** J	<11 UJ	<5
SL067 0-3"	<13	<6	<6	<6	<13	<6	<6	<6	<13	<6
SL068 0-3" (c)	<10 UJ	<10 UJ	<5 UJ	<5 UJ	<10 UJ	**3** J	<5 UJ	<5 UJ	<10 UJ	<5 UJ
SL068 0-3"	<11	<11	<5	<5	<11	<5	<5	<5	<11	<5
SL068_R 0-3" (c)	<10 UJ	<10 UJ	<5 UJ	<5 UJ	<10 UJ	<5 UJ	<5 UJ	<5 UJ	<10 UJ	<5 UJ
SL069 0-3"	<12	<12	<6	<6	<12	<6	<6	<6	<12	<6
SL069 1-2	<13	<13	<6	<6	<13	<6	<6	<6	<13	<6
SL070 0-3" (c)	<10 UJ	<10 UJ	**5** UJ	<5 UJ	<10 UJ	**2** J	<5 UJ	<5 UJ	<10 UJ	<5 UJ
SL070 0-3"	<11	<11	<5	<5	<11	<5	<5	<5	<11	<5
SL070_R 0-3"	<10 UJ	**11** J	<5 UJ	<5 UJ	<10 UJ	**2** J	<5 UJ	<5 UJ	<10 UJ	<5 UJ
SL071 0-3"	<13	<7	<7	<7	<13	<7	<7	<7	<13	<7
SL072 0-3"	<12	<29	**43**	<6	<12	<6	<6	<6	<12 UJ	<6
SL072 5-7	<12	<16	**10**	<6	<12	<6	<6	<6	<12 UJ	<6
SL073 0-3" (c)	<11	<11	<5	<5	<11	**1** J	<5	<5	<11	<5
SL073 0-3"	<11	<17	**22**	<5	<11	<5	<5	<5	<11 UJ	<5
SL073 4-6	<12	<12	<6	<6	<12	<6	<6	<6	<12 UJ	<6

Notes:
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"UJ" Signifies the quantitation limit was estimated and the compound was not detected The estimated limit follows the '<' sign.
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Chloro-methane	Dibromo-chloromethane	Dichloro-bromomethane	Ethyl acetate	Ethylbenzene	Methylene chloride	Styrene	Tetrachloro-ethene	Toluene	Trichloro-ethene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*49.2 x 10E3 ug/kg*	*7.6 x 10E3 ug/kg*	*4.9 x 10E3 ug/kg*	*243.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*85 3 x 10E3 ug/kg*	*21.3 x 10E3 ug/kg*	*12.5 x 10E3 ug/kg*	*54 0 x 10E6 ug/kg*	*58 2 x 10E3 ug/kg*
SL059_R 0-3"	13 R	6 R	6 R	64 R	6 R	62 R	6 R	6 R	2 R	6 R
SL060 0-3"	<11	<5	<5	<54	<5	<24	<5	<5	<5	<5
SL061 0-3"	12 R	6 R	6 R	59 R	6 R	35 R	6 R	6 R	6 R	6 R
SL061_R 0-3"	<12 UJ	<6 UJ	<6 UJ	<59 UJ	<6 UJ	<38 UJ	<6 UJ	<6 UJ	<6 UJ	<6 UJ
SL062 0-3"	13 R	6 R	6 R	64 R	6 R	32 R	6 R	6 R	2 R	6 R
SL062_R 0-3"	<13	<6	<6	<64 UJ	<6 UJ	<20	<6 UJ	<6 UJ	<6 UJ	<6
SL063 0-3"	<18	<5	<5	<54	<5	<7	<5	<5	<5	<5
SL064 0-3"	<11	<6	<6	<57	<6	<6	<6	<6	<6	<6
SL065 0-3"	<11	<6	<6	<57	<6	3 J	<6	<6	<6	<6
SL066 0-3"	<11	<6	<6	<56	<6	<20	<6	<6	1 J	<6
SL066 2-4	<11	<5	<5	<54	<5	<18	<5	<5	1 J	<5
SL067 0-3"	<13	<6	<6	<62	<6	4 J	<6	<6	<6	<6
SL068 0-3" (c)	<10 UJ	<5 UJ	<5 UJ	<52 UJ	<5 UJ	25 J	<5 UJ	<5 UJ	1 J	<5 UJ
SL068 0-3"	<11	<5	<5	<54	<5	<6	<5	<5	<5	<5
SL068_R 0-3" (c)	<10 UJ	<5 UJ	<5 UJ	<52 UJ	<5 UJ	42 J	<5 UJ	<5 UJ	1 J	<5 UJ
SL069 0-3"	<12	<6	<6	<62	<6	<6	<6	<6	<6	<6
SL069 1-2	<13	<6	<6	<63	<6	<6	<6	<6	<6	<6
SL070 0-3" (c)	<10 UJ	<5 UJ	<5 UJ	<52 UJ	<5 UJ	<14 UJ	<5 UJ	<5 UJ	1 J	<5 UJ
SL070 0-3"	<11	<5	<5	<54	<5	<7	<5	<5	<5	<5
SL070_R 0-3"	<10 UJ	<5 UJ	<5 UJ	<52 UJ	<5 UJ	<11 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
SL071 0-3"	<13	<7	<7	<67	<7	2 J	<7	<7	<7	<7
SL072 0-3"	<12	<6	<6	<59	4 J	<6	2 J	<6	32	<6
SL072 5-7	<12	<6	<6	<59	<6	<6	<6	<6	8	<6
SL073 0-3" (c)	<11	<5	<5	<53	<5	<13	<5	<5	<5	<5
SL073 0-3"	<11	<5	<5	<55	<5	<5	<5	<5	16	<5
SL073 4-6	<12	<6	<6	<60	<6	<25	<6	<6	<6	<6

Notes:
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Vinyl Acetate	Vinyl chloride	Xylenes (total)	cis-1,3-Dichloro-propene	n-Butyl acetate	trans-1,3-Dichloro-propene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*270.0 x 10E6 ug/kg*	*0.3x 10E3 ug/kg*	*540.0 x 10E6 ug/kg*	---	---	---
SL059_R 0-3"	13 R	13 R	6 R	6 R	64 R	6 R
SL060 0-3"	<11	<11	2 J	<5	<54	<5
SL061 0-3"	12 R	12 R	6 R	6 R	59 R	6 R
SL061_R 0-3"	<12 UJ	<12 UJ	<6 UJ	<6 UJ	<59 UJ	<6 UJ
SL062 0-3"	13 R	13 R	7 R	6 R	64 R	6 R
SL062_R 0-3"	<13	<13	5 J	<6	<64 UJ	<6
SL063 0-3"	<11	<11	<5	<5	<54	<5
SL064 0-3"	<11	<11	<6	<6	<57	<6
SL065 0-3"	<11	<11	<6	<6	<57	<6
SL066 0-3"	<11	<11	<6	<6	<56	<6
SL066 2-4	<11	<11	<5	<5	<54	<5
SL067 0-3"	<13	<13	<6	<6	<62	<6
SL068 0-3" (c)	<10 UJ	<10 UJ	10 J	<5 UJ	<52 UJ	<5 UJ
SL068 0-3"	<11	<11	<5	<5	<54	<5
SL068_R 0-3" (c)	<10 UJ	<10 UJ	8 J	<5 UJ	<52 UJ	<5 UJ
SL069 0-3"	<12	<12	<6	<6	<62	<6
SL069 1-2	<13	<13	<6	<6	<63	<6
SL070 0-3" (c)	<10 UJ	<10 UJ	7 J	<5 UJ	<52 UJ	<5 UJ
SL070 0-3"	<11	<11	<5	<5	<54	<5
SL070_R 0-3"	<10 UJ	<10 UJ	5 J	<5 UJ	<52 UJ	<5 UJ
SL071 0-3"	<13	<13	<7	<7	<67	<7
SL072 0-3"	<12 UJ	<12	35	<6 UJ	<59	<6 UJ
SL072 5-7	<12 UJ	<12	4 J	<6 UJ	<59	<6 UJ
SL073 0-3" (c)	<11	<11	5 J	<5	<53	<5
SL073 0-3"	<11 UJ	<11	11	<5 UJ	<55	<5 UJ
SL073 4-6	<12	<12	<6	<6	<60	<6

Notes:
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VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,2-Dichloro-ethane	1,2-Dichloro-ethene	1,2-Dichloro-propane	2-Butanone	2-Hexanone
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*24 3x 10E6 ug/kg*	*3 2x 10E3 ug/kg*	*11.2x 10E3 ug/kg*	*27.0x 10E6 ug/kg*	*1.1x 10E3 ug/kg*	*7 0x 10E3 ug/kg*	*2 7x 10E6 ug/kg*	*9.4x 10E3 ug/kg*	*13.5x 10E6 ug/kg*	---
SL074 0-3" (c)	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL074 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL074 5-6	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL075 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL076 0-3"	<7	<7	<7	<7	<7	<7	<7	<7	<13	<13
SL077 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL077 4-5	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12
SL079 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL079 4-6	<5	<5	<5	<5	<5	<5	<5	<5	**11** R	<11
SL080 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL081 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL081 3-5	<6	<6	<6	<6	<6	<6	<6	<6	**12** R	<12
SL082 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL082 3-5	<29	<29	<29	<29	<29	<29	<29	<29	**58** R	<58
SL082 3-5DL	<730	<730	<730	<730	<730	<730	<730	<730	**1500** R	<1500
SL083 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL083 5-7	<740	<740	<740	<740	<740	<740	<740	<740	**1500** R	<1500
SL084 0-3"	<7	<7	<7	<7	<7	<7	<7	<7	<13	<13
SL085 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<13	<13
SL086 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL087 0-3"	<9	<9	<9	<9	<9	<9	<9	<9	**18** R	<18
SL088 0-3"	<9	<9	<9	<9	<9	<9	<9	<9	<17	<17
SL089 0-3"	<6	<6 UJ	<6	<6	<6	<6	<6	<6	<13	<13 UJ
SL089 0-3" RE	**6** R	**6** R	**6** R	**6** R	**6** R	**6** R	**6** R	**6** R	**13** R	**13** R
SL090 0-3"	<7	<7	<7	<7	<7	<7	<7	<7	<14	<14
SL091 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<12	<12

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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4-Methyl-2-Pentanone	Acetone	Benzene	Bromoform	Bromomethane	Carbon Disulfide	Carbon tetrachloride	Chloro-benzene	Chloro-ethane	Chloroform
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*13.5 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*22.1 x 10E3 ug/kg*	*81.0 x 10E3 ug/kg*	*378.0 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*4.9 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	---	*2.7 x 10E6 ug/kg*
SL074 0-3" (c)	<11	<11	<5	<5	<11	1 J	<5	<5	<11	<5
SL074 0-3"	<11	<17	<6	<6	<11	<6	<6	<6	<11	<6
SL074 5-6	<11	<32	<6	<6	<11	<6	<6	<6	<11	<6
SL075 0-3"	<11	<11	<6	<6	<11	<6	<6	<6	<11	<6
SL076 0-3"	<13	<7	<7	<7	<13	<7	<7	<7	<13	<7
SL077 0-3"	<11	<21	<6	<6	<11	<6	<6	<6	<11	<6
SL077 4-5	<12	<25	<6	<6	<12	<6	<6	<6	<12	<6
SL079 0-3"	<11	<11	<6	<6	<11	<6	<6	<6	<11 UJ	<6
SL079 4-6	<11	<11	<5	5 R	<11	<5	<5	<5	<11	<5
SL080 0-3"	<11	<11	<6	<6	<11	<6	<6	<6	<11	<6
SL081 0-3"	<11	<17	<6	<6	<11	<6	<6	<6	<11	<6
SL081 3-5	<12	<12	<6	6 R	<12	<6	<6	<6	<12	<6
SL082 0-3"	<11	<11	<6	<6	<11	<6	<6	<6	<11 UJ	<6
SL082 3-5	<58	<110	26 J	29 R	<58	<29	<29	<29	<58	<29
SL082 3-5DL	<1500	750 J	<730	<730	<1500	<730	<730	<730	<1500	<730
SL083 0-3"	<11	<11	<5	<5	<11	<5	<5	<5	<11 UJ	<5
SL083 5-7	<1500	530 J	<740	<740	<1500	<740	<740	180 J	<1500	<740
SL084 0-3"	<13	<7	<7	<7	<13	<7	<7	<7	<13	<7
SL085 0-3"	<13	<13	<6	<6	<13	<6	<6	<6	<13	<6
SL086 0-3"	<11	<11	<6	<6	<11	<6	<6	<6	<11	<6
SL087 0-3"	<18	<30	<9	<9	<18	<9	<9	<9	<18	<9
SL088 0-3"	<17	<17	<9	<9	<17	<9	<9	<9	<17	<9
SL089 0-3"	<13 UJ	<13	<6	<6	<13	<6	<6	<6 UJ	<13	<6
SL089 0-3" RE	13 R	4 R	6 R	6 R	13 R	6 R	6 R	6 R	13 R	6 R
SL090 0-3"	<14	<14	<7	<7	<14	<7	<7	<7	<14	<7
SL091 0-3"	<12	<16	<6	<6	<12	<6	<6	<6	<12	<6

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Chloro-methane	Dibromo-chloromethane	Dichloro-bromomethane	Ethyl acetate	Ethylbenzene	Methylene chloride	Styrene	Tetrachloro-ethene	Toluene	Trichloro-ethene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*49.2 x 10E3 ug/kg*	*7.6 x 10E3 ug/kg*	*4.9 x 10E3 ug/kg*	*243.0 x 10E6 ug/kg*	*27 0 x 10E6 ug/kg*	*85.3 x 10E3 ug/kg*	*21.3 x 10E3 ug/kg*	*12.5 x 10E3 ug/kg*	*54.0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*
SL074 0-3" (c)	<11	<5	<5	<53	<5	<13	<5	<5	**1** J	<5
SL074 0-3"	<11	<6	<6	<56	<6	<10	<6	<6	<6	<6
SL074 5-6	<11	<6	<6	<57	<6	<9	<6	<6	<6	<6
SL075 0-3"	<11	<6	<6	<56	<6	**2** J	<6	<6	<6	<6
SL076 0-3"	<13	<7	<7	<66	<7	**3** J	<7	<7	<7	<7
SL077 0-3"	<11	<6	<6	<56	<6	<10	<6	<6	<6	<6
SL077 4-5	<12	<6	<6	<61	<6	<10	<6	<6	<6	<6
SL079 0-3"	<11	<6	<6	<57	<6	<21	<6	<6	<6	<6
SL079 4-6	<11	<5	<5	<53	<5	<5	<5	<5	<5	<5
SL080 0-3"	<11	<6	<6	<56	<6	**2** J	<6	<6	<6	<6
SL081 0-3"	<11	<6	<6	<57	<6	<10	<6	<6	<6	<6
SL081 3-5	<12	<6	<6	<60	<6	<6	<6	<6	<6	<6
SL082 0-3"	<11	<6	<6	<57	<6	<23	<6	<6	<6	<6
SL082 3-5	<58	<29	<29	<290	**350**	<17	<29	<29	**75**	<29
SL082 3-5DL	<1500	<730	<730	<7300	**280** J	<730	<730	<730	**160** J	<730
SL083 0-3"	<11	<5	<5	<53	<5	<23	<5	<5	**2** J	<5
SL083 5-7	<1500	<740	<740	<7400	**1100**	<740	<740	<740	**180** J	<740
SL084 0-3"	<13	<7	<7	<68	<7	**3** J	<7	<7	<7	<7
SL085 0-3"	<13	<6	<6	<63	<6	**3** J	<6	<6	<6	<6
SL086 0-3"	<11	<6	<6	<57	<6	**2** J	<6	<6	<6	<6
SL087 0-3"	<18 UJ	<9	<9	<91	<9	<30	<9	<9	**7** J	<9
SL088 0-3"	<17	<9	<9	<86	<9	<14	<9	<9	<9	<9
SL089 0-3"	<20	<6	<6	<63	<6 UJ	<11	<6 UJ	<6 UJ	<6 UJ	<6
SL089 0-3" RE	**13** R	**6** R	**6** R	**63** R	**6** R	**13** R	**6** R	**6** R	**6** R	**6** R
SL090 0-3"	<14	<7	<7	<70	<7	<7	<7	<7	<7	<7
SL091 0-3"	<12	<6	<6	<62	<6	<6	<6	<6	<6	<6

Notes:
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VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Vinyl Acetate	Vinyl chloride	Xylenes (total)	cis-1,3-Dichloro-propene	n-Butyl acetate	trans-1,3-Dichloro-propene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*2700 x 10E6 ug/kg*	*0 3 x 10E3 ug/kg*	*540.0 x 10E6 ug/kg*	---	---	---
SL074 0-3" (c)	<11	<11	**10**	<5	<53	<5
SL074 0-3"	<11	<11	<6	<6	<56	<6
SL074 5-6	<11	<11	<6	<6	<57	<6
SL075 0-3"	<11	<11	<6	<6	<56	<6
SL076 0-3"	<13	<13	<7	<7	<66	<7
SL077 0-3"	<11	<11	<6	<6	<56	<6
SL077 4-5	<12	<12	<6	<6	<61	<6
SL079 0-3"	<11	<11	<6	<6	<57	<6
SL079 4-6	<11	<11	<5	<5	<53	<5
SL080 0-3"	<11	<11	<6	<6	<56	<6
SL081 0-3"	<11	<11	<6	<6	<57	<6
SL081 3-5	<12	<12	<6	<6	<60	<6
SL082 0-3"	<11	<11	<6	<6	<57	<6
SL082 3-5	<58	<58	**1900**	<29	<290	<29
SL082 3-5DL	<1500	<1500	**1500**	<730	<7300	<730
SL083 0-3"	<11	<11	<5	<5	<53	<5
SL083 5-7	<1500	<1500	**8300**	<740	<7400	<740
SL084 0-3"	<13	<13	<7	<7	<68	<7
SL085 0-3"	<13	<13	<6	<6	<63	<6
SL086 0-3"	<11	<11	<6	<6	<57	<6
SL087 0-3"	<18	<18	**4** J	<9	<91	<9
SL088 0-3"	<17	<17	<9	<9	<86	<9
SL089 0-3"	<13	<13	<6 UJ	<6	<63	<6
SL089 0-3" RE	**13** R	**13** R	**6** R	**6** R	**63** R	**6** R
SL090 0-3"	<14	<14	<7	<7	<70	<7
SL091 0-3"	<12	<12	<6	<6	<62	<6

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NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,2-Dichloro-ethane	1,2-Dichloro-ethene	1,2-Dichloro-propane	2-Butanone	2-Hexanone
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*24.3 x 10E6 ug/kg*	*3 2 x 10E3 ug/kg*	*11 2 x 10E3 ug/kg*	*27 0 x 10E6 ug/kg*	*1.1 x 10E3 ug/kg*	*7 0 x 10E3 ug/kg*	*2.7 x 10E6 ug/kg*	*9.4 x 10E3 ug/kg*	*13.5 x 10E6 ug/kg*	---
SL092 0-3"	<7	<7	<7	<7	<7	<7	<7	<7	<14	<14
SL093 0-3"	<7	<7	<7	<7	<7	<7	<7	<7	<13	<13
SL094 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL095 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL096 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	**12** R	<12
SL096 2-4	<6	<6	<6	<6	<6	<6	<6	<6	**12** R	<12 UJ
SL096 2-4R	**6** R	**6** R	**6** R	**6** R	**6** R	**6** R	**6** R	**6** R	**12** R	**12** UJ
SL097 1-3A	<740	<740	<740	**190** J	<740	<740	**910**	<740	**1500** R	<1500
SL097 7-9	<6	<6	<6	<6	<6	<6	<6	<6	**12** R	<12
SL098 7-9	<6	<6	<6	<6	<6	<6	**7**	<6	<12	<12
SL099 5-7	<6	<6	<6	<6	<6	<6	<6	<6	**12** R	<12
SL100 4-6	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	**11** R
SL27001 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	**11** R	<11 UJ
SL27001 2-4	<5	<5	<5	<5	<5	<5	<5	<5	**11** R	<11
SL27002 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11
SL27002 2-4	<5	<5	<5	<5	<5	<5	<5	<5	**11** R	<11 UJ
SL27003 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11 UJ
SL27003 2-4	<5	<5	<5	<5	<5	<5	<5	<5	**11** R	<11 UJ
SL27004 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	**11** R	<11 UJ
SL27004 2-4	<6	<6	<6	<6	<6	<6	<6	<6	**12** R	<12 UJ
SL27005 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11 UJ
SL27005 2-4	<6	<6	<6	<6	<6	<6	<6	<6	**12** R	<12 UJ
SL27006 0-3"	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11 UJ
SL27006 2-4	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11 UJ
SL27007 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	**11** R	<11 UJ
SL27007 2-4	<6	<6	<6	<6	<6	<6	<6	<6	**11** R	<11 UJ

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NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4-Methyl-2-Pentanone	Acetone	Benzene	Bromoform	Bromomethane	Carbon Disulfide	Carbon tetrachloride	Chloro-benzene	Chloro-ethane	Chloroform
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 u /kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*13.5 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*22.1 x 10E3 ug/kg*	*81.0 x 10E3 ug/kg*	*378.0 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*4.9 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	---	*2.7 x 10E6 ug/kg*
SL092 0-3"	<14	<14	<7	<7	<14	<7	<7	<7	<14	<7
SL093 0-3"	<13	<13	<7	<7	<13	<7	<7	<7	<13	<7
SL094 0-3"	<11	<11	<6	<6	<11	<6	<6	<6	<11	<6
SL095 0-3"	<11	<11	<6	<6	<11	<6	<6	<6	<11	<6
SL096 0-3"	<12	<17	<6	<6	<12	<6	<6	<6	<12	<6
SL096 2-4	<12 UJ	<12 UJ	<6	<6	<12	<6	<6	<6	<12	<6
SL096 2-4R	**12** R	**13** R	**6** R	**6** R	**12** R	**6** R	**6** R	**6** R	**12** R	**6** R
SL097 1-3A	<1500	**820** J	<740	<740	<1500	<740	<740	**15000**	<1500	<740
SL097 7-9	<12	<29	<6	**6** R	<12	**3** J	<6	<6	<12	<6
SL098 7-9	<12	<27	**1** J	<6	<12	**3** J	<6	**5** J	<12 UJ	<6
SL099 5-7	<12	<29	<6	**6** R	<12	<6	<6	<6	<12	<6
SL100 4-6	<11	<10	<6	<6	<11	<6	<6	**2** J	<11	<6
SL27001 0-3"	<11 UJ	<11 UJ	<5	<5	<11	<5	<5	<5	<11	<5
SL27001 2-4	<11	<11	<5	<5	<11	<5	<5	<5	<11	<5
SL27002 0-3"	<11	<11	<6	<6	<11	<6	<6	<6	<11	<6
SL27002 2-4	<11 UJ	<11 UJ	<5	<5	<11	<5	<5	<5	<11	<5
SL27003 0-3"	<11 UJ	<11 UJ	<6	<6	<11	<6	<6	<6	<11	<6
SL27003 2-4	<11 UJ	<11 UJ	<5	<5	<11	<5	<5	<5	<11	<5
SL27004 0-3"	<11 UJ	<11 UJ	<5	<5	<11	<5	<5	<5	<11	<5
SL27004 2-4	<12 UJ	<12 UJ	<6	<6	<12	<6	<6	<6	<12	<6
SL27005 0-3"	<11 UJ	<11 UJ	<6	<6	<11	<6	<6	<6	<11	<6
SL27005 2-4	<12 UJ	<12 UJ	<6	<6	<12	<6	<6	<6	<12	<6
SL27006 0-3"	<11 UJ	<11 UJ	<6	<6	<11	<6	<6	<6	<11	<6
SL27006 2-4	<11 UJ	<11 UJ	<6	<6	<11	<6	<6	<6	<11	<6
SL27007 0-3"	<11 UJ	<16 UJ	<5	<5	<11	<5	<5	<5	<11	<5
SL27007 2-4	<11 UJ	<12 UJ	<6	<6	<11	<6	<6	<6	<11	<6

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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Chloro-methane	Dibromo-chloromethane	Dichloro-bromomethane	Ethyl acetate	Ethylbenzene	Methylene chloride	Styrene	Tetrachloro-ethene	Toluene	Trichloro-ethene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*49.2 x 10E3 ug/kg*	*7.6 x 10E3 ug/kg*	*4.9 x 10E3 ug/kg*	*243.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*85.3 x 10E3 ug/kg*	*21.3 x 10E3 ug/kg*	*12.5 x 10E3 ug/kg*	*54 0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*
SL092 0-3"	<27	<7	<7	<69	<7	<10	<7	<7	<7	<7
SL093 0-3"	<13	<7	<7	<66	<7	<9	<7	<7	<7	<7
SL094 0-3"	<17	<6	<6	<56	<6	<9	<6	<6	<6	<6
SL095 0-3"	<11	<6	<6	<56	<6	**2** J	<6	<6	<6	<6
SL096 0-3"	<12 UJ	<6	<6	<60	<6	<31	<6	<6	<6	<6
SL096 2-4	<12	<6	<6	<60	<6	<7	<6	**2** J	<6	**2** J
SL096 2-4R	**12** R	**6** R	**6** R	**60** R	**6** R	**12** R	**6** R	**6** R	**6** R	**6** R
SL097 1-3A	<1500	<740	<740	<7400	**550** J	<740	<740	<740	**4300**	**350** J
SL097 7-9	<12	<6	<6	<60	<6	<6	<6	<6	<6	<6
SL098 7-9	<12	<6	<6	<58	<6	<23	<6	<6	**2** J	<6
SL099 5-7	<12	<6	<6	<61	<6	<6	<6	<6	**1** J	<6
SL100 4-6	<11	<6	<6	<57	<6	<5	<6	<6	**4** J	<6
SL27001 0-3"	<11	<5	<5	<54	<5	<5	<5	<5	<5	<5
SL27001 2-4	<11	<5	<5	<54	<5	<8	<5	<5	<5	<5
SL27002 0-3"	<11	<6	<6	<56	<6	<8	<6	<6	<6	<6
SL27002 2-4	<11	<5	<5	<54	<5	<5	<5	<5	<5	<5
SL27003 0-3"	<11	<6	<6	<57	<6	<6	<6	<6	<6	<6
SL27003 2-4	<11	<5	<5	<54	<5	<5	<5	<5	<5	<5
SL27004 0-3"	<11	<5	<5	<54	<5	<5	<5	<5	<5	<5
SL27004 2-4	<12	<6	<6	<58	<6	<6	<6	<6	<6	<6
SL27005 0-3"	<11	<6	<6	<57	<6	<6	<6	<6	<6	<6
SL27005 2-4	<12	<6	<6	<58	<6	<7	<6	<6	<6	<6
SL27006 0-3"	<11	<6	<6	<55	<6	<7	<6	<6	<6	<6
SL27006 2-4	<11	<6	<6	<56	<6	<8	<6	<6	**2** J	<6
SL27007 0-3"	<11	<5	<5	<55	<5	<12	<5	<5	<5	<5
SL27007 2-4	<11	<6	<6	<57	<6	<10	<6	<6	<6	<6

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Vinyl Acetate	Vinyl chloride	Xylenes (total)	cis-1,3-Dichloro-propene	n-Butyl acetate	trans-1,3-Dichloro-propene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*270.0 x 10E6 ug/kg*	*0 3 x 10E3 ug/kg*	*540 0 x 10E6 ug/kg*	---	---	---
SL092 0-3"	<14	<14	<7	<7	<69	<7
SL093 0-3"	<13	<13	<7	<7	<66	<7
SL094 0-3"	<11	<11	<6	<6	<56	<6
SL095 0-3"	<11	<11	<6	<6	<56	<6
SL096 0-3"	<12	<12	<6	<6	<60	<6
SL096 2-4	<12	<12	<6	<6	<60	<6
SL096 2-4R	**12** R	**12** R	**6** R	**6** R	**60** R	**6** R
SL097 1-3A	<1500	<1500	**3100**	<740	<7400	<740
SL097 7-9	<12	<12	<6	<6	<60	<6
SL098 7-9	<12	**5** J	<6	<6	<58	<6
SL099 5-7	<12	<12	<6	<6	<61	<6
SL100 4-6	<11	<11	<6	<6	<57	<6
SL27001 0-3"	<11	<11	<5	<5	<54	<5
SL27001 2-4	<11	<11	<5	<5	<54	<5
SL27002 0-3"	<11	<11	<6	<6	<56	<6
SL27002 2-4	<11	<11	<5	<5	<54	<5
SL27003 0-3"	<11	<11	<6	<6	<57	<6
SL27003 2-4	<11	<11	<5	<5	<54	<5
SL27004 0-3"	<11	<11	<5	<5	<54	<5
SL27004 2-4	<12	<12	**1** J	<6	<58	<6
SL27005 0-3"	<11	<11	<6	<6	<57	<6
SL27005 2-4	<12	<12	<6	<6	<58	<6
SL27006 0-3"	<11	<11	<6	<6	<55	<6
SL27006 2-4	<11	<11	<6	<6	<56	<6
SL27007 0-3"	<11	<11	<5	<5	<55	<5
SL27007 2-4	<11	<11	<6	<6	<57	<6

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,2-Dichloro-ethane	1,2-Dichloro-ethene	1,2-Dichloro-propane	2-Butanone	2-Hexanone
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*24 3 x 10E6 ug/kg*	*3.2 x 10E3 ug/kg*	*11.2 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*1.1 x 10E3 ug/kg*	*7 0 x 10E3 ug/kg*	*2 7 x 10E6 ug/kg*	*9.4 x 10E3 ug/kg*	*13.5 x 10E6 ug/kg*	---
SL27008 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	11 R	<11 UJ
SL27008 2-4	<6	<6	<6	<6	<6	<6	<6	<6	11 R	<11 UJ
SL27009 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL27009 2-4	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11 UJ
SL27010 0-3"	<5	<5 UJ	<5	<5	<5	<5	<5	<5	<11	<11 UJ
SL27010 2-4	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11
SL27011 0-3"	<5	<5	<5	<5	<5	<5	<5	<5	<11	<11
SL27011 2-4	<6	<6	<6	<6	<6	<6	<6	<6	<11	<11

Notes.
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident
(c) Sample was taken during health and safety screening in December 1991.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected The estimated limit follows the '<' sign.
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4-Methyl-2-Pentanone	Acetone	Benzene	Bromoform	Bromomethane	Carbon Disulfide	Carbon tetrachloride	Chloro-benzene	Chloro-ethane	Chloroform
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*13 5 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*22.1 x 10E3 ug/kg*	*81.0 x 10E3 ug/kg*	*378 0 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*4 9 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	---	*2 7 x 10E6 ug/kg*
SL27008 0-3"	<11 UJ	<11 UJ	<5	<5	<11	<5	<5	<5	<11	<5
SL27008 2-4	<11 UJ	<11 UJ	<6	<6	<11	<6	<6	<6	<11	<6
SL27009 0-3"	<11	<11 UJ	<5	<5	<11	<5	<5	<5	<11	<5
SL27009 2-4	<11	<11 UJ	<5	<5	<11	<5	<5	<5	<11	<5
SL27010 0-3"	<11 UJ	<11	<5	<5	<11	<5	<5	<5 UJ	<11	<5
SL27010 2-4	<11	<11	<6	<6	<11	<6	<6	<6	<11	<6
SL27011 0-3"	<11	<11	<5	<5	8 J	<5	<5	<5	<11	<5
SL27011 2-4	<11	<11 UJ	<6	<6	<11	<6	<6	<6	<11	<6

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Chloro-methane	Dibromo-chloromethane	Dichloro-bromomethane	Ethyl acetate	Ethylbenzene	Methylene chloride	Styrene	Tetrachloro-ethene	Toluene	Trichloro-ethene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*49.2 x 10E3 ug/kg*	*7.6 x 10E3 ug/kg*	*4.9 x 10E3 ug/kg*	*243 0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*85 3 x 10E3 ug/kg*	*21 3 x 10E3 ug/kg*	*12.5 x 10E3 ug/kg*	*54.0 x 10E6 ug/kg*	*58 2 x 10E3 ug/kg*
SL27008 0-3"	<11	<5	<5	<54	<5	<10	<5	<5	<5	<5
SL27008 2-4	<11	<6	<6	<56	<6	<13	<6	<6	<6	<6
SL27009 0-3"	<11	<5	<5	<55	<5	<6	<5	<5	<5	<5
SL27009 2-4	<11	<5	<5	<54	<5	<5	<5	<5	<5	<5
SL27010 0-3"	<11	<5	<5	<54	<5 UJ	<10	<5 UJ	<5 UJ	<5 UJ	<5
SL27010 2-4	<11	<6	<6	<56	<6	<6	<6	<6	<6	<6
SL27011 0-3"	<23	<5	<5	<55	<5	<9	<5	<5	<5	<5
SL27011 2-4	<11	<6	<6	<56	<6	<6	<6	<6	<6	<6

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
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APPENDIX C-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS EPA METHOD 8240 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Vinyl Acetate	Vinyl chloride	Xylenes (total)	cis-1,3-Dichloro-propene	n-Butyl acetate	trans-1,3-Dichloro-propene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*270 0 x 10E6 ug/kg*	*0 3 x 10E3 ug/kg*	*540.0 x 10E6 ug/kg*	---	---	---
SL27008 0-3"	<11	<11	<5	<5	<54	<5
SL27008 2-4	<11	<11	<6	<6	<56	<6
SL27009 0-3"	<11 UJ	<11	<5	<5	<55	<5 UJ
SL27009 2-4	<11 UJ	<11	<5	<5	<54	<5 UJ
SL27010 0-3"	<11	<11	2 J	<5	<54	<5
SL27010 2-4	<11	<11	2 J	<6	<56	<6
SL27011 0-3"	<11	<11	<5	<5	<55	<5
SL27011 2-4	<11 UJ	<11	<6	<6	<56	<6 UJ

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound
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(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
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Appendix C-2
Semivolatile Organic Compounds Analytical Summary

APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2-Dichloro-benzene	1,4-Dichloro-benzene	2,4-Dimethyl-phenol	2-Chloro-phenol	2-Nitrophenol	Benzoic acid	Hexachloro-ethane	Isophorone	N-Nitroso-di-N-propylamine	Nitrobenzene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*24.3 x 10E6 ug/kg*	*26.7 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	*1.35 x 10E6 ug/kg*	---	*1.08 x 10E9 ug/kg*	*45.7 x 10E3 ug/kg*	*156.1 x 10E3 ug/kg*	*0.1 x 10E3 ug/kg*	*135.0 x 10E3 ug/kg*
SL011 2-4	<770	<770	<770	<770	<770	<3700	<770	<770	<770	<770
SL013 2-4	**120** J	<760	<760	<760	<760	<3700	<760	<760	<760	<760
SL022 2-4	**43000**	<4100	**2200** J	<4100	<4100	<4700	<4100	<4100	<4100	<4100
SL024 2-4	<770	<770	<770	<770	<770	<3700	<770	<770	<770	<770
SL026 2-4	<740	<740	<740	<740	<740	<3600	<740	<740	<740	<740
SL032 2-4	<760	<760	<760	<760	<760	<1800	<760	<760	<760	<760
SL034 9-11	<820	<820	<820	<820	<820	<4000	<820	<820	<820	<820
SL035 9-11	<800	<800	<800	<800	<800	<3700	<800	<800	<800	<800
SL039 10-12	**200** J	**630** J	<810	<810	<810	<4000	<810	<810	<810	<810
SL040 7.5-8.5 (c)	<28000	<28000	<28000	<28000	<28000	<140000	<28000	<28000	<28000	<28000
SL040 9-11	**580** J	<880	<880	<880	<880	<4300	<880	<880	<880	<880
SL041 3-4	<810	<810	<810	<810	<810	**220** J	<810	<810	<810	<810
SL043 5-7	<750	<750	**900**	<750	<750	<3600	<750	<750	<750	<750
SL044 7-9	**92000**	<20000	**73000**	<20000	<20000	**160000**	<20000	<20000	<20000	<20000
SL044 7-9DL	**97000**	**41000** R	**74000**	**41000** R	**41000** R	**200000** R	**41000** R	**41000** R	**41000** R	**41000** R
SL047 3-5	**3500**	**7600**	**1100**	<800	<800	<3900	<800	<800	<800	<800
SL048 1-2	<820	<820	<820	<820	<820	<4000	<820	<820	<820	<820
SL050 2-4	<430	<430	<430	<430	<430	<2100	<430	<430	<430	<430
SL052 1-2	<800	<800	<800	<800	<800	<3900	<800	<800	<800	<800
SL053 4-6	<370	<370	<370	<370	<370	<1800	<370	<370	<370	<370
SL056 0-3" (d)	<360	<360	<360	<360	<360	<1700	<360	<360	<360	<360
SL057 0-3" (d)	<400	<400	<400	<400	<400	**170** J	<400	<400	<400	<400
SL058 0-3" (d)	<360	<360	<360	<360	<360	<1800	<360	<360	<360	<360
SL059 0-3" (d)	<370	<370	<370	<370	<370	**140** J	<370	<370	<370	<370
SL060 0-3" (d)	<350	<350	<350	<350	<350	**1800**	<350	<350	<350	<350
SL061 0-3" (d)	<380	<380	<380	<380	<380	<1800	<380	<380	<380	<380

Notes.
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Phenol	bis (2-Chloroethyl) ether	bis(2-Chloro- isopropyl) ether	4-Nitrophenol	Dibenzofuran	Dimethyl- phthalate	Hexachloro- cyclopenta- diene	N-Nitroso- diphenylamine (1)	bis(2-Chloro- ethoxy) methane	1,3-Dichloro- benzene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re- mediation Goal(b)	*162.0 x 10E6 ug/kg*	*0.6 x 10E3 ug/kg*	*9.1 x 10E3 ug/kg*	---	---	*270.0 x 10E6 ug/kg*	*1.89 x 10E6 ug/kg*	---	---	---
SL011 2-4	<770	<770	<770	<3700	<770	<770	<770	<770	<770	<770
SL013 2-4	<760	<760	<760	<3700	<760	<760	<760	<760	<760	<760
SL022 2-4	**14000**	<4100	<4100	<20000	<4100	<4100	<4100	<4100	<4100	**4600**
SL024 2-4	<770	<770	<770	<3700	<770	<770	<770	<770	<770	<770
SL026 2-4	<740	<740	<740	<3600	<740	<740	<740	<740	<740	<740
SL032 2-4	<760	<760	<760	<3700	<760	<760	<760	<760	<760	<760
SL034 9-11	<820	<820	<820	<4000	**110** J	<820	<820	<820	<820	<820
SL035 9-11	<800	<800	<800	<3900	<800	<800	<800	<800	<800	<800
SL039 10-12	<810	<810	<810	<4000	<810	<810	<810	<810	<810	<810
SL040 7 5-8.5 (c)	<28000	<28000	<28000	<140000 UJ	<28000	<28000	<28000	<28000	<28000	<28000
SL040 9-11	<880	<880	<880	<4300	<880	<880	<880	<880	<880	<880
SL041 3-4	<810	<810	<810	<4000	<810	<810	<810	<810	<810	<810
SL043 5-7	<750	<750	<750	<3600	<750	<750	<750	<750	<750	**180** J
SL044 7-9	**100000**	<20000	<20000	<99000	<20000	<20000	<20000	**5500** J	<20000	<20000
SL044 7-9DL	**110000**	**41000** R	**41000** R	**200000** R	**41000** R	**41000** R	**41000** R	**41000** R	**41000** R	**41000** R
SL047 3-5	<800	<800	<800	<3900	<800	<800	<800	**210** J	<800	**6400**
SL048 1-2	<820	<820	<820	<4000	<820	<820	<820	<820	<820	<820
SL050 2-4	<430	<430	<430	<2100	<430	<430	<430	<430	<430	<430
SL052 1-2	<800	<800	<800	<3900	<800	<800	<800	<800	<800	<800
SL053 4-6	<370	<370	<370	<1800	<370	<370	<370	<370	<370	<370
SL056 0-3" (d)	<360	<360	<360	<1700	<360	<360	<360	<360	<360	<360
SL057 0-3" (d)	<400	<400	<400	<1900	<400	<400	<400	<400	<400	<400
SL058 0-3" (d)	<360	<360	<360	<1800	<360	<360	<360	<360	<360	<360
SL059 0-3" (d)	<370	<370	<370	<1800	<370	<370	<370	<370	<370	<370
SL060 0-3" (d)	<350	<350	<350	<1700	<350	<350	<350	<350	<350	<350
SL061 0-3" (d)	<380	<380	<380	<1900	<380	<380	<380	<380	<380	<380

Notes:
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2,4-Trichloro-benzene	2,4,5-Trichloro-phenol	2,4,6-Trichloro-phenol	2,4-Dichloro-phenol	2,4-Dinitro-phenol	2,4-Dinitro-toluene	2-Chloronaph-thalene	2-Nitroaniline	4,6-Dinitro-2-Methylphenol	4-Chloro-aniline
FDER Soil Action Level(a)	---	---	---	---	---	---	*6000 ug/kg Total PAH*	---	---	---
EPA Prelim. Re-mediation Goal(b)	*2.7 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*	*810.0 x 10E3 ug/kg*	*540.0 x 10E3 ug/kg*	*0.9 x 10E3 ug/kg*	*21 6 x 10E6 ug/kg*	---	---	*1.08 x 10E6 ug/kg*
SL011 2-4	<770	<3700	<770	<770	<3700	<770	<770	<3700	<3700	<770
SL013 2-4	<760	<3700	<760	<760	<3700	<760	<760	<3700	<3700	<760
SL022 2-4	<4100	<20000	<4100	<4100	<20000	<4100	<4100	<20000	<20000	<4100
SL024 2-4	<770	<3700	<770	<770	<3700	<770	<770	<3700	<3700	<770
SL026 2-4	<740	<3600	<740	<740	<3600	<740	<740	<3600	<3600	<740
SL032 2-4	<760	<3700	<760	<760	<3700	<760	<760	<3700	<3700	<760
SL034 9-11	<820	<4000	<820	<820	<4000	<820	<820	<4000	<4000	<820
SL035 9-11	<800	<3900	<800	<800	<3900	<800	<800	<3900	<3900	<800
SL039 10-12	<810	<4000	<810	<810	<4000	<810	<810	<4000	<4000	<810
SL040 7 5-8 5 (c)	<28000	<140000	<28000	<28000	<140000	<28000	<28000	<140000	<140000	<28000
SL040 9-11	<880	<4300	<880	<880	<4300	<880	<880	<4300	<4300	<880
SL041 3-4	<810	<4000	<810	<810	<4000	<810	<810	<4000	<4000	<810
SL043 5-7	<750	<3600	<750	<750	<3600	<750	<750	<3600	<3600	<750
SL044 7-9	**23000**	<99000	<20000	<20000	<99000	<20000	<20000	<99000	<99000	<20000
SL044 7-9DL	**25000**	**200000** R	**41000** R	**41000** R	**200000** R	**41000** R	**41000** R	**200000** R	**200000** R	**41000** R
SL047 3-5	<800	<3900	<800	<800	<3900	<800	<800	<3900	<3900	<800
SL048 1-2	<820	<4000	<820	<820	<4000	<820	<820	<4000	<4000	<820
SL050 2-4	<430	<2100	<430	<430	<2100	<430	<430	<2100	<2100	<430
SL052 1-2	<800	<3900	<800	<800	<3900	<800	<800	<3900	<3900	<800
SL053 4-6	<370	<1800	<370	<370	<1800	<370	<370	<1800	<1800	<370
SL056 0-3" (d)	<360	<1700	<360	<360	<1700	<360	<360	<1700	<1700	<360
SL057 0-3" (d)	<400	<1900	<400	<400	<1900	<400	<400	<1900	<1900	<400
SL058 0-3" (d)	<360	<1800	<360	<360	<1800	<360	<360	<1800	<1800	<360
SL059 0-3" (d)	<370	<1800	<370	<370	<1800	<370	<370	<1800	<1800	<370
SL060 0-3" (d)	<350	<1700	<350	<350	<1700	<350	<350	<1700	<1700	<350
SL061 0-3" (d)	<380	<1900	<380	<380	<1900	<380	<380	<1900	<1900	<380

Notes:
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SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	2,6-Dinitro-toluene	2-Methylnaph-thalene	2-Methyl-phenol	3,3'-Dichloro-benzidine	4-Bromo-phenyl phenylether	4-Chloro-3-Methyl-phenol	4-Chloro-phenyl-phenylether	4-Methyl-phenol	3-Nitroaniline	4-Nitroaniline
FDER Soil Action Level(a)	---	*6000 ug/kg Total PAH*	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*0 94 x 10E3 ug/kg*	---	*13.5 x 10E6 ug/kg*	*1.4 x 10E3 ug/kg*	---	---	---	*13.5 x 10E6 ug/kg*	---	---
SL011 2-4	<770	<770	<770	<1500	<770	<770	<770	<770	<3700	<3700
SL013 2-4	<760	<760	<760	<1500	<760	<760	<760	<760	<3700	<3700
SL022 2-4	<4100	**830** J	**5100**	<8200	<4100	<4100	<4100	**8800**	<20000	<20000
SL024 2-4	<770	<770	<770	<1500	<770	<770	<770	<770	<3700	<3700
SL026 2-4	<740	<740	<740	<1500	<740	<740	<740	<740	<3600	<3600
SL032 2-4	<760	<760	<760	<1500	<760	<760	<760	<760	<3700	<3700
SL034 9-11	<820	<820	<820	<1600	<820	<820	<820	<820	<4000	<4000
SL035 9-11	<800	<800	<800	<1600	<800	<800	<800	<800	<3900	<3900
SL039 10-12	<810	**820**	<810	<1600	<810	<810	<810	<810	<4000	<4000
SL040 7.5-8 5 (c)	<28000	**5400** J	<28000	<56000	<28000	<28000	<28000	<28000	<140000	<140000
SL040 9-11	<880	**1700**	<880	<1800	<880	<880	<880	<880	<4300	<4300
SL041 3-4	<810	**190** J	<810	<1600	<810	<810	<810	<810	<4000	<4000
SL043 5-7	<750	<750	**270** J	<1500	<750	<750	<750	**180** J	<3600	<3600
SL044 7-9	<20000	**21000**	**450000** R	<41000	<20000	<20000	<20000	**100000**	<99000	<99000
SL044 7-9DL	**41000** R	**23000**	**450000**	**82000** R	**41000** R	**41000** R	**41000** R	**100000**	**200000** R	**200000** R
SL047 3-5	<800	**1600**	**1100**	<1600	<800	<800	<800	**460** J	<3900	<3900
SL048 1-2	<820	<820	<820	<1600	<820	<820	<820	<820	<4000	<4000
SL050 2-4	<430	<430	<430	<860	<430	<430	<430	<430	<2100	<2100
SL052 1-2	<800	<800	<800	<1600	<800	<800	<800	<800	<3900	<3900
SL053 4-6	<370	<370	<370	<740	<370	<370	<370	<370	<1800	<1800
SL056 0-3" (d)	<360	<360	<360	<720	<360	<360	<360	<360	<1700	<1700
SL057 0-3" (d)	<400	<400	<400	<800	<400	<400	<400	<400	<1900	<1900
SL058 0-3" (d)	<360	<360	<360	<730	<360	<360	<360	<360	<1800	<1800
SL059 0-3" (d)	<370	<370	<370	<740	<370	<370	<370	<370	<1800	<1800
SL060 0-3" (d)	<350	<350	<350	<710	<350	<350	<350	<350	<1700	<1700
SL061 0-3" (d)	<380	<380	<380	<770	<380	<380	<380	<380	<1900	<1900

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SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Benzyl Alcohol	Butylbenzyl-phthalate	Di-n-butyl-phthalate	Di-n-octyl-phthalate	Diethylph-thalate	Dimethyl-phthalate	Hexachloro-benzene	Hexachloro-butadiene	Pentachloro-phenol	bis(2-Ethyl-hexyl) phthalate
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*81.0 x 10E6 ug/kg*	*54.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*5.4 x 10E6 ug/kg*	*216.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*0.4 x 10E3 ug/kg*	*8.2 x 10E3 ug/kg*	*5.3 x 10E3 ug/kg*	*45.7 x 10E3 ug/kg*
SL011 2-4	<770	<770	<770	<770	<770	<770	<770	<770	<3700	**460** J
SL013 2-4	<760	<760	<760	<760	<760	<760	<760	<760	<3700	**300** J
SL022 2-4	<4100	<4100	<4100	<4100	<4100	<4100	<4100	<4100	<20000	**3000** J
SL024 2-4	<770	<770	<770	<770	<770	<770	<770	<770	<3700	**610** J
SL026 2-4	<740	<740	<740	<740	<740	<740	<740	<740	<3600	**130** J
SL032 2-4	<760	<760	<760	<760	<760	<760	<760	<760	<3700	**260** J
SL034 9-11	<820	<820	**260** J	<820	<820	<820	<820	<820	<4000	**380** J
SL035 9-11	<800	<800	<800	<800	<800	<800	<800	<800	<3900	**190** J
SL039 10-12	<810	**110** J	<810	<810	**91** J	<810	<810	<810	<4000	**4700**
SL040 7.5-8.5 (c)	<28000	<28000	<28000	<28000	<28000	<28000	<28000	<28000	<140000	**4000** J
SL040 9-11	<880	<880	<880	<880	<880	<880	<880	<880	<4300	**1800**
SL041 3-4	<810	<810	<810	<810	**220** J	<810	<810	<810	<4000	**760** J
SL043 5-7	<750	<750	**110** J	<750	<750	<750	<750	<750	<3600	**180** J
SL044 7-9	<20000	<20000	<20000	<20000	<20000	<20000	<20000	<20000	<99000	**12000** J
SL044 7-9DL	**41000** R	**41000** R	**41000** R	**41000** R	**41000** R	**41000** R	**41000** R	**41000** R	**200000** R	**15000**
SL047 3-5	<800	<800	<800	<800	<800	<800	<800	<800	<3900	**860**
SL048 1-2	<820	<820	<820	<820	<820	<820	<820	<820	<4000	**570** J
SL050 2-4	<430	<430	<430	<430	<430	<430	<430	<430	<2100	**160** J
SL052 1-2	<800	<800	<800	<800	<800	<800	<800	<800	<3900	**1600**
SL053 4-6	<370	<370	<370	<370	<370	<370	<370	<370	<1800	<370
SL056 0-3" (d)	<360	<360	<360	<360	<360	<360	<360	<360	<1700	<360
SL057 0-3" (d)	<400	**85** J	<400	<400	<400	<400	<400	<400	<1900	**270** J
SL058 0-3" (d)	<360	<360	<360	<360	<360	<360	<360	<360	<1800	**54** J
SL059 0-3" (d)	<370	<370	<370	<370	<370	<370	<370	<370	<1800	**47** J
SL060 0-3" (d)	<350	<350	<350	<350	<350	<350	<350	<350	<1700	**42** J
SL061 0-3" (d)	<380	<380	<380	<380	<380	<380	<380	<380	<1900	**150** J

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NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenz (a,h) anthracene
FDER Soil Action Level(a)	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*
EPA Prelim. Remediation Goal(b)	*16.2 x 10E6 ug/kg*	---	*81 0 x 10E6 ug/kg*	---	*ug/kg*	---	---	---	---	---
SL011 2-4	<770	<770	<770	<770	<770	<770	<770	<770	<770	<770
SL013 2-4	<760	<760	<760	**1200**	**1100**	**1200**	**840**	**1100**	**1200**	**390** J
SL022 2-4	<4100	<4100	<4100	<4100	<4100	<4100	<4100	<4100	<4100	<4100
SL024 2-4	<770	<770	<770	<770	<770	<770	<770	<770	<770	<770
SL026 2-4	<740	<740	<740	**91** J	**200** J	**230** J	**250** J	**130** J	**160** J	**88** J
SL032 2-4	<760	<760	<760	<760	<760	<760	<760	<760	**84** J	<760
SL034 9-11	**140** J	<820	**420** J	**380** J	**370** J	**380** J	**290** J	**350** J	**510** J	<820
SL035 9-11	**91** J	<800	**180** J	**840**	**950**	**1600**	**840**	**810**	**920**	**290** J
SL039 10-12	<810	<810	<810	**86** J	**240** J	**160** J	**210** J	**150** J	**170** J	<810
SL040 7 5-8 5 (c)	<28000	<28000	<28000	<28000	<28000	<28000	<28000	<28000	<28000	<28000
SL040 9-11	<880	<880	**140** J	**520** J	**910**	**1300**	**390** J	**500** J	**640** J	<880
SL041 3-4	<810	**85** J	**92** J	**850**	**1300**	**1400**	**1200**	**1400**	**1100**	<810
SL043 5-7	<750	<750	<750	**410** J	**670** J	**640** J	**540** J	**470** J	**500** J	<750
SL044 7-9	<20000	<20000	<20000	**3400** J	**4000** J	**3700** J	<20000	**3500** J	**4200** J	<20000
SL044 7-9DL	**41000** R	**41000** R	**41000** R	**41000** R	**4400**	**4200**	**41000** R	**41000** R	**4300**	**41000** R
SL047 3-5	<800	**110** J	<800	**350** J	**570** J	**460** J	**420** J	**540** J	**460** J	<800
SL048 1-2	<820	<820	<820	<820	**85** J	**87** J	<820	<820	<820	<820
SL050 2-4	<430	<430	<430	<430	<430	<430	<430	<430	<430	<430
SL052 1-2	<800	<800	<800	<800	<800	**91** J	<800	**82** J	**100** J	<800
SL053 4-6	<370	<370	<370	<370	<370	<370	<370	<370	<370	<370
SL056 0-3" (d)	<360	<360	<360	<360	<360	<360	<360	<360	<360	<360
SL057 0-3" (d)	<400	<400	<400	**110** J	**130** J	**200** J	**100** J	**200** J	**230** J	<400
SL058 0-3" (d)	<360	<360	<360	<360	<360	<360	<360	<360	<360	<360
SL059 0-3" (d)	<370	<370	<370	<370	<370	<370	<370	<370	<370	<370
SL060 0-3" (d)	<350	<350	<350	<350	<350	<350	<350	<350	<350	<350
SL061 0-3" (d)	<380	<380	<380	**49** J	**59** J	**74** J	<380	**93** J	**71** J	<380

Notes:
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
FDER Soil Action Level(a)	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*
EPA Prelim. Remediation Goal(b)	*10.8 x 10E3 ug/kg*	*10.8 x 10E3 ug/kg*	*1 1 x 10E3 ug/kg*	*1.08 x 10E6 ug/kg*	---	*8.1 x 10E6 ug/kg*
SL011 2-4	<770	<770	<770	<770	<770	<770
SL013 2-4	**1100**	<760	**770**	<760	<760	**1900**
SL022 2-4	**740** J	<4100	<4100	<4100	<4100	**620** J
SL024 2-4	<770	<770	<770	<770	<770	<770
SL026 2-4	**120** J	<740	**200** J	<740	<740	**140** J
SL032 2-4	**110** J	<760	<760	<760	<760	**110** J
SL034 9-11	**1300**	**170** J	**400** J	<820	**1000**	**860**
SL035 9-11	**1500**	<800	**760** J	<800	**700** J	**1100**
SL039 10-12	**310** J	<810	**220** J	**470** J	**280** J	**270** J
SL040 7.5-8 5 (c)	<28000	<28000	<28000	<28000	<28000	<28000
SL040 9-11	**980**	**110** J	**870** J	**420** J	**460** J	**700** J
SL041 3-4	**1100**	<810	**1200**	**120** J	**310** J	**970**
SL043 5-7	**390** J	<750	**560** J	<750	<750	**340** J
SL044 7-9	**3100** J	<20000	**2500** J	**9100** J	<20000	**2500** J
SL044 7-9DL	**41000** R	<41000	**41000** R	**10000**	**41000** R	**41000** R
SL047 3-5	**620** J	<800	**460** J	**6400**	<800	**480** J
SL048 1-2	**97** J	<820	<820	<820	<820	**96** J
SL050 2-4	<430	<430	<430	<430	<430	<430
SL052 1-2	<800	<800	<800	<800	<800	<800
SL053 4-6	<370	<370	<370	<370	<370	<370
SL056 0-3" (d)	<360	<360	<360	<360	<360	<360
SL057 0-3" (d)	**200** J	<400	**100** J	<400	**67** J	**220** J
SL058 0-3" (d)	<360	<360	<360	<360	<360	<360
SL059 0-3" (d)	<370	<370	<370	<370	<370	<370
SL060 0-3" (d)	<350	<350	<350	<350	<350	<350
SL061 0-3" (d)	**98** J	<380	<380	<380	<380	**79** J

Notes:
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2-Dichloro-benzene	1,4-Dichloro-benzene	2,4-Dimethyl-phenol	2-Chloro-phenol	2-Nitrophenol	Benzoic acid	Hexachloro-ethane	Isophorone	N-Nitroso-di-N-propylamine	Nitrobenzene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*24.3 x 10E6 ug/kg*	*26.7 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	*1.35 x 10E6 ug/kg*	---	*1.08 x 10E9 ug/kg*	*45.7 x 10E3 ug/kg*	*156.1 x 10E3 ug/kg*	*0.1 x 10E3 ug/kg*	*135.0 x 10E3 ug/kg*
SL062 0-3" (d)	<350	<350	<350	<350	<350	<1700	<350	<350	<350	<350
SL063 0-3"	<720	<720	<720	<720	<720	<3500	<720	<720	<720	<720
SL064 0-3"	<740	<740	<740	<740	<740	<3600	<740	<740	<740	<740
SL065 0-3"	<750	<750	<750	<750	<750	<3600	<750	<750	<750	<750
SL066 0-3"	<740	<740	<740	<740	<740	<3600	<740	<740	<740	<740
SL066 2-4	<360	<360	<360	<360	<360	<1700	<360	<360	<360	<360
SL067 0-3"	<820	<820	<820	<820	<820	<14000	<820	<820	<820	<820
SL068 0-3" (c)	<340	<340	<340	<340	<340	<1700	<340	<340	<340	<340
SL068 0-3"	<720	<720	<720	<720	<720	<3500	<720	<720	<720	<720
SL069 0-3"	<820	<820	<820	<820	<820	<4000	<820	<820	<820	<820
SL069 1-2	<840	<840	<840	<840	<840	<4100	<840	<840	<840	<840
SL070 0-3" (c)	<340	<340	<340	<340	<340	<1600	<340	<340	<340	<340
SL070 0-3"	<720	<720	<720	<720	<720	<3500	<720	<720	<720	<720
SL071 0-3"	<880	<880	<880	<880	<880	<4200	<880	<880	<880	<880
SL072 0-3"	<780	<780	<780	<780	<780	<3800	<780	<780	<780	<780
SL072 5-7	<780	<780	<780	<780	<780	<3800	<780	<780	<780	<780
SL073 0-3" (c)	<350	<350	<350	<350	<350	<1700	<350	<350	<350	<350
SL073 0-3"	<730	<730	<730	<730	<730	<3500	<730	<730	<730	<730
SL073 4-6	<390	<390	<390	<390	<390	<1900	<390	<390	<390	<390
SL074 0-3" (c)	<350	<350	<350	<350	<350	<1700	<350	<350	<350	<350
SL074 0-3"	<740	<740	<740	<740	<740	<3600	<740	<740	<740	<740
SL074 5-6	<750	<750	<750	<750	<750	<3600	<750	<750	<750	<750
SL075 0-3"	<740	<740	<740	<740	<740	<3600	<740	<740	<740	<740
SL076 0-3"	<870	<870	<870	<870	<870	<4200	<870	<870	<870	<870
SL077 0-3"	<750	<750	<750	<750	<750	<3600	<750	<750	<750	<750
SL077 4-5	<400	<400	<400	<400	<400	<2000	<400	<400	<400	<400

Notes:
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SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Phenol	bis (2-Chloroethyl) ether	bis(2-Chloro- isopropyl) ether	4-Nitrophenol	Dibenzofuran	Dimethyl- phthalate	Hexachloro- cyclopenta- diene	N-Nitroso- diphenylamine (1)	bis(2-Chloro- ethoxy) methane	1,3-Dichloro- benzene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re- mediation Goal(b)	*162.0 x 10E6 ug/kg*	*0.6 x 10E3 ug/kg*	*9.1 x 10E3 ug/kg*	---	---	*270.0 x 10E6 ug/kg*	*1.89 x 10E6 ug/kg*	---	---	---
SL062 0-3" (d)	<350	<350	<350	<1700	<350	<350	<350	<350	<350	<350
SL063 0-3"	<720	<720	<720	<3500	<720	<720	<720	<720	<720	<720
SL064 0-3"	<740	<740	<740	<3600	<740	<740	<740	<740	<740	<740
SL065 0-3"	<750	<750	<750	<3600	<750	<750	<750	<750	<750	<750
SL066 0-3"	<740	<740	<740	<3600	<740	<740	<740	<740	<740	<740
SL066 2-4	<360	<360	<360	<1700	<360	<360	<360	<360	<360	<360
SL067 0-3"	<820	<820	<820	<4000	<820	<820	<820	<820	<820	<820
SL068 0-3" (c)	<340	<340	<340	<1700 UJ	<340	<340	<340	<340	<340	<340
SL068 0-3"	<720	<720	<720	<3500	<720	<720	<720	<720	<720	<720
SL069 0-3"	<820	<820	<820	<4000	<820	<820	<820	<820	<820	<820
SL069 1-2	<840	<840	<840	<4100	<840	<840	<840	<840	<840	<840
SL070 0-3" (c)	<340	<340	<340	<1600 UJ	<340	<340	<340	<340	<340	<340
SL070 0-3"	<720	<720	<720	<3500	<720	<720	<720	<720	<720	<720
SL071 0-3"	<880	<880	<880	<4200	<880	<880	<880	<880	<880	<880
SL072 0-3"	<780	<780	<780	<3800	<780	<780	<780	<780	<780	<780
SL072 5-7	<780	<780	<780	<3800	<780	<780	<780	<780	<780	<780
SL073 0-3" (c)	<350	<350	<350	<1700 UJ	<350	<350	<350	<350	<350	<350
SL073 0-3"	<730	<730	<730	<3500	<730	<730	<730	<730	<730	<730
SL073 4-6	<390	<390	<390	<1900	<390	<390	<390	<390	<390	<390
SL074 0-3" (c)	<350	<350	<350	<1700 UJ	<350	<350	<350	<350	<350	<350
SL074 0-3"	<740	<740	<740	<3600	<740	<740	<740	<740	<740	<740
SL074 5-6	<750	<750	<750	<3600	<750	<750	<750	<750	<750	<750
SL075 0-3"	<740	<740	<740	<3600	<740	<740	<740	<740	<740	<740
SL076 0-3"	<870	<870	<870	<4200	<870	<870	<870	<870	<870	<870
SL077 0-3"	<750	<750	<750	<3600	<750	<750	<750	<750	<750	<750
SL077 4-5	<400	<400	<400	<2000	<400	<400	<400	<400	<400	<400

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SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2,4-Trichloro-benzene	2,4,5-Trichloro-phenol	2,4,6-Trichloro-phenol	2,4-Dichloro-phenol	2,4-Dinitro-phenol	2,4-Dinitro-toluene	2-Chloronaph-thalene	2-Nitroaniline	4,6-Dinitro-2-Methylphenol	4-Chloro-aniline
FDER Soil Action Level(a)	---	---	---	---	---	---	*6000 ug/kg Total PAH*	---	---	---
EPA Prelim. Re-mediation Goal(b)	*2.7 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*	*810.0 x 10E3 ug/kg*	*540.0 x 10E3 ug/kg*	*0.9 x 10E3 ug/kg*	*21 6 x 10E6 ug/kg*	---	---	*1.08 x 10E6 ug/kg*
SL062 0-3" (d)	<350	<1700	<350	<350	<1700	<350	<350	<1700	<1700	<350
SL063 0-3"	<720	<3500	<720	<720	<3500	<720	<720	<3500	<3500	<720
SL064 0-3"	<740	<3600	<740	<740	<3600	<740	<740	<3600	<3600	<740
SL065 0-3"	<750	<3600	<750	<750	<3600	<750	<750	<3600	<3600	<750
SL066 0-3"	<740	<3600	<740	<740	<3600	<740	<740	<3600	<3600	<740
SL066 2-4	<360	<1700	<360	<360	<1700	<360	<360	<1700	<1700	<360
SL067 0-3"	<820	<4000	<820	<820	<4000	<820	<820	<4000	<4000	<820
SL068 0-3" (c)	<340	<1700	<340	<340	<1700	<340	<340	<1700	<1700	<340
SL068 0-3"	<720	<3500	<720	<720	<3500	<720	<720	<3500	<3500	<720
SL069 0-3"	<820	<4000	<820	<820	<4000	<820	<820	<4000	<4000	<820
SL069 1-2	<840	<4100	<840	<840	<4100	<840	<840	<4100	<4100	<840
SL070 0-3" (c)	<340	<1600	<340	<340	<1600	<340	<340	<1600	<1600	<340
SL070 0-3"	<720	<3500	<720	<720	<3500	<720	<720	<3500	<3500	<720
SL071 0-3"	<880	<4200	<880	<880	<4200	<880	<880	<4200	<4200	<880
SL072 0-3"	<780	<3800	<780	<780	<3800	<780	<780	<3800	<3800	<780
SL072 5-7	<780	<3800	<780	<780	<3800	<780	<780	<3800	<3800	<780
SL073 0-3" (c)	<350	<1700	<350	<350	<1700	<350	<350	<1700	<1700	<350
SL073 0-3"	<730	<3500	<730	<730	<3500	<730	<730	<3500	<3500	<730
SL073 4-6	<390	<1900	<390	<390	<1900	<390	<390	<1900	<1900	<390
SL074 0-3" (c)	<350	<1700	<350	<350	<1700	<350	<350	<1700	<1700	<350
SL074 0-3"	<740	<3600	<740	<740	<3600	<740	<740	<3600	<3600	<740
SL074 5-6	<750	<3600	<750	<750	<3600	<750	<750	<3600	<3600	<750
SL075 0-3"	<740	<3600	<740	<740	<3600	<740	<740	<3600	<3600	<740
SL076 0-3"	<870	<4200	<870	<870	<4200	<870	<870	<4200	<4200	<870
SL077 0-3"	<750	<3600	<750	<750	<3600	<750	<750	<3600	<3600	<750
SL077 4-5	<400	<2000	<400	<400	<2000	<400	<400	<2000	<2000	<400

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SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	2,6-Dinitro-toluene	2-Methylnaph-thalene	2-Methyl-phenol	3,3'-Dichloro-benzidine	4-Bromo-phenyl phenylether	4-Chloro-3-Methyl-phenol	4-Chloro-phenyl-phenylether	4-Methyl-phenol	3-Nitroaniline	4-Nitroaniline
FDER Soil Action Level(a)	---	*6000 ug/kg Total PAH*	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*0.94 x 10E3 ug/kg*	---	*13.5 x 10E6 ug/kg*	*1.4 x 10E3 ug/kg*	---	---	---	*13.5 x 10E6 ug/kg*	---	---
SL062 0-3" (d)	<350	<350	<350	<700	<350	<350	<350	<350	<1700	<1700
SL063 0-3"	<720	<720	<720	<1400	<720	<720	<720	<720	<3500	<3500
SL064 0-3"	<740	<740	<740	<1500	<740	<740	<740	<740	<3600	<3600
SL065 0-3"	<750	<750	<750	<1500	<750	<750	<750	<750	<3600	<3600
SL066 0-3"	<740	<740	<740	<1500	<740	<740	<740	<740	<3600	<3600
SL066 2-4	<360	<360	<360	<720	<360	<360	<360	<360	<1700	<1700
SL067 0-3"	<820	<820	<820	<1600	<820	<820	<820	<820	<4000	<4000
SL068 0-3" (c)	<340	<340	<340	<690	<340	<340	<340	<340	<1700	<1700
SL068 0-3"	<720	<720	<720	<1400	<720	<720	<720	<720	<3500	<3500
SL069 0-3"	<820	<820	<820	<1600	<820	<820	<820	<820	<4000	<4000
SL069 1-2	<840	<840	<840	<1700	<840	<840	<840	<840	<4100	<4100
SL070 0-3" (c)	<340	<340	<340	<670	<340	<340	<340	<340	<1600	<1600
SL070 0-3"	<720	<720	<720	<1400	<720	<720	<720	<720	<3500	<3500
SL071 0-3"	<880	<880	<880	<1800	<880	<880	<880	<880	<4200	<4200
SL072 0-3"	<780	<780	<780	<1600	<780	<780	<780	<780	<3800	<3800
SL072 5-7	<780	<780	<780	<1600	<780	<780	<780	<780	<3800	<3800
SL073 0-3" (c)	<350	<350	<350	<690	<350	<350	<350	<350	<1700	<1700
SL073 0-3"	<730	<730	<730	<1500	<730	<730	<730	<730	<3500	<3500
SL073 4-6	<390	<390	<390	<790	<390	<390	<390	<390	<1900	<1900
SL074 0-3" (c)	<350	<350	<350	<700	<350	<350	<350	<350	<1700	<1700
SL074 0-3"	<740	<740	<740	<1500	<740	<740	<740	<740	<3600	<3600
SL074 5-6	<750	<750	<750	<1500	<750	<750	<750	<750	<3600	<3600
SL075 0-3"	<740	<740	<740	<1500	<740	<740	<740	<740	<3600	<3600
SL076 0-3"	<870	<870	<870	<1700	<870	<870	<870	<870	<4200	<4200
SL077 0-3"	<750	<750	<750	<1500	<750	<750	<750	<750	<3600	<3600
SL077 4-5	<400	<400	<400	<800	<400	<400	<400	<400	<2000	<2000

Notes:
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Benzyl Alcohol	Butylbenzyl-phthalate	Di-n-butyl-phthalate	Di-n-octyl-phthalate	Diethylph-thalate	Dimethyl-phthalate	Hexachloro-benzene	Hexachloro-butadiene	Pentachloro-phenol	bis(2-Ethyl-hexyl) phthalate
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*81 0 x 10E6 ug/kg*	*54 0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*5.4 x 10E6 ug/kg*	*216.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*0.4 x 10E3 ug/kg*	*8.2 x 10E3 ug/kg*	*5.3 x 10E3 ug/kg*	*45.7 x 10E3 ug/kg*
SL062 0-3" (d)	<350	<350	<350	<350	<350	<350	<350	<350	<1700	**42** J
SL063 0-3"	<720	<720	<720	<720	<720	<720	<720	<720	<3500	<720
SL064 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<3600	**84** J
SL065 0-3"	<750	<750	<750	<750	<750	<750	<750	<750	<3600	**210** J
SL066 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<3600	**97** J
SL066 2-4	<360	<360	<360	<360	<360	<360	<360	<360	<1700	<360
SL067 0-3"	<820	<820	<820	<820	<820	<820	<820	<820	<4000	**2100**
SL068 0-3" (c)	<340	<340	<340	<340	<340	<340	<340	<340	<1700	**68** J
SL068 0-3"	<720	<720	<720	<720	<720	<720	<720	<720	<3500	<720
SL069 0-3"	<820	<820	<820	<820	<820	<820	<820	<820	<4000	**1200**
SL069 1-2	<840	<840	<840	<840	<840	<840	<840	<840	<4100	**200** J
SL070 0-3" (c)	<340	<340	**44** J	<340	<340	<340	<340	<340	<1600	<340
SL070 0-3"	<720	<720	<720	<720	<720	<720	<720	<720	<3500	<720
SL071 0-3"	<880	<880	<880	<880	<880	<880	<880	<880	<4200	<880
SL072 0-3"	<780	<780	<780	<780	<780	<780	<780	<780	<3800	**130** J
SL072 5-7	<780	<780	<780	<780	<780	<780	<780	<780	<3800	**900**
SL073 0-3" (c)	<350	<350	<350	<350	<350	<350	<350	<350	<1700	<350
SL073 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<3500	**80** J
SL073 4-6	<390	<390	<390	<390	<390	<390	<390	<390	<1900	**120** J
SL074 0-3" (c)	<350	<350	**50** J	<350	<350	<350	<350	<350	<1700	**85** J
SL074 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<3600	<740
SL074 5-6	<750	<750	<750	<750	<750	<750	<750	<750	<3600	<750
SL075 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<3600	<740
SL076 0-3"	<870	<870	<870	<870	<870	<870	<870	<870	<4200	<870
SL077 0-3"	<750	<750	<750	<750	<750	<750	<750	<750	<3600	<750
SL077 4-5	<400	<400	<400	<400	<400	<400	<400	<400	<2000	**42** J

Notes:
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenz (a,h) anthracene
FDER Soil Action Level(a)	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*
EPA Prelim. Remediation Goal(b)	*16.2 x 10E6 ug/kg*	---	*81.0 x 10E6 ug/kg*	---	*ug/kg*	---	---	---	---	---
SL062 0-3" (d)	<350	<350	<350	<350	<350	<350	<350	<350	<350	<350
SL063 0-3"	<720	<720	<720	**220** J	<720	<720	**170** J	<720	**270** J	<720
SL064 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<740	<740
SL065 0-3"	<750	<750	<750	<750	<750	<750	<750	<750	<750	<750
SL066 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<740	<740
SL066 2-4	<360	<360	<360	<360	<360	<360	<360	<360	<360	<360
SL067 0-3"	<820	<820	<820	<820	<820	<820	<820	<820	<820	<820
SL068 0-3" (c)	<340	<340	<340	<340	<340	<340	<340	<340	<340	<340
SL068 0-3"	<720	<720	<720	<720	<720	<720	<720	<720	<720	<720
SL069 0-3"	<820	<820	<820	<820	<820	**85** J	<820	<820	<820	<820
SL069 1-2	<840	<840	<840	<840	<840	<840	<840	<840	<840	<840
SL070 0-3" (c)	<340	<340	<340	<340	<340	<340	<340	<340	<340	<340
SL070 0-3"	<720	<720	<720	<720	<720	<720	<720	<720	<720	<720
SL071 0-3"	<880	<880	<880	**180** J	<880	<880	<880	<880	<880	<880
SL072 0-3"	<780	<780	**210** J	**820**	**760** J	**930**	**670** J	**760** J	**980**	**310** J
SL072 5-7	<780	<780	<780	**190** J	**160** J	**190** J	**140** J	**180** J	**180** J	<780
SL073 0-3" (c)	<350	<350	<350	<350	<350	<350	<350	<350	<350	<350
SL073 0-3"	<730	<730	<730	<730	<730	**120** J	<730	<730	<730	<730
SL073 4-6	<390	<390	<390	<390	<390	<390	<390	<390	<390	<390
SL074 0-3" (c)	<350	<350	<350	**200** J	**150** J	**160** J	<350	**160** J	**190** J	<350
SL074 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<740	<740
SL074 5-6	<750	<750	<750	<750	<750	<750	<750	<750	<750	<750
SL075 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<740	<740
SL076 0-3"	<870	<870	<870	**130** J	<870	<870	<870	<870	**140** J	<870
SL077 0-3"	<750	<750	**78** J	<750	<750	<750	**250** J	<750	<750	**130** J
SL077 4-5	<400	<400	<400	<400	<400	<400	<400	<400	<400	<400

Notes:
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SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
FDER Soil Action Level(a)	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*
EPA Prelim. Remediation Goal(b)	*10.8 x 10E3 ug/kg*	*10.8 x 10E3 ug/kg*	*1.1 x 10E3 ug/kg*	*1.08 x 10E6 ug/kg*	---	*8.1 x 10E6 ug/kg*
SL062 0-3" (d)	<350	<350	<350	<350	<350	<350
SL063 0-3"	**420** J	<720	**170** J	<720	**210** J	**370** J
SL064 0-3"	<740	<740	<740	<740	<740	<740
SL065 0-3"	<750	<750	<750	<750	<750	<750
SL066 0-3"	<740	<740	<740	<740	<740	<740
SL066 2-4	<360	<360	<360	<360	<360	<360
SL067 0-3"	<820	<820	<820	<820	<820	<820
SL068 0-3" (c)	**40** J	<340	<340	<340	<340	<340
SL068 0-3"	<720	<720	<720	<720	<720	<720
SL069 0-3"	**120** J	<820	<820	<820	<820	**110** J
SL069 1-2	<840	<840	<840	<840	<840	<840
SL070 0-3" (c)	**52** J	<340	<340	<340	<340	**46** J
SL070 0-3"	<720	<720	<720	<720	<720	<720
SL071 0-3"	**420** J	<880	**110** J	<880	<880	**260** J
SL072 0-3"	**1400**	<780	**570** J	<780	**790**	**1200**
SL072 5-7	**210** J	<780	**120** J	<780	<780	**190** J
SL073 0-3" (c)	<350	<350	<350	<350	<350	<350
SL073 0-3"	<730	<730	<730	<730	<730	<730
SL073 4-6	<390	<390	<390	<390	<390	<390
SL074 0-3" (c)	**280** J	<350	<350	<350	**55** J	**260** J
SL074 0-3"	<740	<740	<740	<740	<740	<740
SL074 5-6	<750	<750	<750	<750	<750	<750
SL075 0-3"	<740	<740	<740	<740	<740	<740
SL076 0-3"	**200** J	<870	**120** J	<870	<870	**150** J
SL077 0-3"	**1200**	<750	**230** J	<750	**370** J	**960**
SL077 4-5	<400	<400	<400	<400	<400	<400

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SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2-Dichloro-benzene	1,4-Dichloro-benzene	2,4-Dimethyl-phenol	2-Chloro-phenol	2-Nitrophenol	Benzoic acid	Hexachloro-ethane	Isophorone	N-Nitroso-di-N-propylamine	Nitrobenzene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Remediation Goal(b)	*24.3 x 10E6 ug/kg*	*26.7 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	*1.35 x 10E6 ug/kg*	---	*1.08 x 10E9 ug/kg*	*45.7 x 10E3 ug/kg*	*156.1 x 10E3 ug/kg*	*0.1 x 10E3 ug/kg*	*135.0 x 10E3 ug/kg*
SL079 0-3"	<750	<750	<750	<750	<750	<3600	<750	<750	<750	<750
SL079 4-6	<350	<350	<350	<350	<350	<1700	<350	<350	<350	<350
SL080 0-3"	<730	<730	<730	<730	<730	<3600	<730	<730	<730	<730
SL081 0-3"	<760	<760	<760	<760	<760	<3700	<760	<760	<760	<760
SL081 3-5	<790	<790	<790	<790	<790	<3800	<790	<790	<790	<790
SL082 0-3"	<750	<750	<750	<750	<750	<3600	<750	<750	<750	<750
SL082 3-5	<770	<770	<770	<770	<770	<3700	<770	<770	<770	<770
SL082 3-5RE	**770** R	**770** R	**770** R	**770** R	**770** R	**3700** R	**770** R	**770** R	**770** R	**770** R
SL083 0-3"	<690	<690	<690	<690	<690	<3400	<690	<690	<690	<690
SL083 5-7	<790	<790	<790	<790	<790	<3800	<790	<790	<790	<790
SL084 0-3"	<890	<890	<890	<890	<890	<4300	<890	<890	<890	<890
SL085 0-3"	<840	<840	<840	<840	<840	<4100	<840	<840	<840	<840
SL086 0-3"	<760	<760	<760	<760	<760	<3700	<760	<760	<760	<760
SL087 0-3"	<1200	<1200	<1200	<1200	<1200	<5900	<1200	<1200	<1200	<1200
SL088 0-3"	<1100	<1100	<1100	<1100	<1100	<5500	<1100	<1100	<1100	<1100
SL089 0-3"	<840	<840	<840	<840	<840	<4100	<840	<840	<840	<840
SL090 0-3"	<930	<930	<930	<930	<930	<4500	<930	<930	<930	<930
SL091 0-3"	<810	<810	<810	<810	<810	<4000	<810	<810	<810	<810
SL092 0-3"	<920	<920	<920	<920	<920	<4400	<920	<920	<920	<920
SL093 0-3"	<870	<870	<870	<870	<870	<4200	<870	<870	<870	<870
SL094 0-3"	<740	<740	<740	<740	<740	<3600	<740	<740	<740	<740
SL095 0-3"	<740	<740	<740	<740	<740	<3600	<740	<740	<740	<740
SL096 0-3"	<790	<790	<790	<790	<790	<3800	<790	<790	<790	<790
SL096 2-4	<800	<800	<800	<800	<800	<3900	<800	<800	<800	<800
SL097 1-3A	**3900** J	**2400** J	<3900	<3900	<3900	<190000	<3900	<3900	<3900	<3900
SL097 7-9	**190** J	<790	<790	<790	<790	<3800	<790	<790	<790	<790

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SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Phenol	bis (2-Chloroethyl) ether	bis(2-Chloro- isopropyl) ether	4-Nitrophenol	Dibenzofuran	Dimethyl- phthalate	Hexachloro- cyclopenta- diene	N-Nitroso- diphenylamine (1)	bis(2-Chloro- ethoxy) methane	1,3-Dichloro- benzene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re- mediation Goal(b)	*162.0 x 10E6 ug/kg*	*0.6 x 10E3 ug/kg*	*9.1 x 10E3 ug/kg*	---	---	*270 0 x 10E6 ug/kg*	*1 89 x 10E6 ug/kg*	---	---	---
SL079 0-3"	<750	<750	<750	<3600	<750	<750	<750	<750	<750	<750
SL079 4-6	<350	<350	<350	<1700	<350	<350	<350	<350	<350	<350
SL080 0-3"	<730	<730	<730	<3600	<730	<730	<730	<730	<730	<730
SL081 0-3"	<760	<760	<760	<3700	<760	<760	<760	<760	<760	<760
SL081 3-5	<790	<790	<790	<3800	<790	<790	<790	<790	<790	<790
SL082 0-3"	<750	<750	<750	<3600	<750	<750	<750	<750	<750	<750
SL082 3-5	<770	<770	<770	<3700	<770	<770	<770	<770	<770	<770
SL082 3-5RE	**770** R	**770** R	**770** R	**3700** R	**770** R	**770** R	**770** R	**250** R	**770** R	**770** R
SL083 0-3"	<690	<690	<690	<3400 UJ	<690	<690	<690	<690	<690	<690
SL083 5-7	<790	<790	<790	<3800 UJ	<790	<790	<790	<790	<790	<790
SL084 0-3"	<890	<890	<890	<4300	<890	<890	<890	<890	<890	<890
SL085 0-3"	<840	<840	<840	<4100	<840	<840	<840	<840	<840	<840
SL086 0-3"	<760	<760	<760	<3700	<760	<760	<760	<760	<760	<760
SL087 0-3"	<1200	<1200	<1200 UJ	<5900	<1200	<1200	<1200	<1200	<1200	<1200
SL088 0-3"	<1100	<1100	<1100	<5500	<1100	<1100	<1100	<1100	<1100	<1100
SL089 0-3"	<840	<840	<840	<4100	<840	<840	<840	<840	<840	<840
SL090 0-3"	<930	<930	<930	<4500	<930	<930	<930	<930	<930	<930
SL091 0-3"	<810	<810	<810	<4000	<810	<810	<810	<810	<810	<810
SL092 0-3"	<920	<920	<920	<4400	<920	<920	<920	<920	<920	<920
SL093 0-3"	<870	<870	<870	<4200	<870	<870	<870	<870	<870	<870
SL094 0-3"	<740	<740	<740	<3600	<740	<740	<740	<740	<740	<740
SL095 0-3"	<740	<740	<740	<3600	<740	<740	<740	<740	<740	<740
SL096 0-3"	<790	<790	<790 UJ	<3800	<790	<790	<790	<790	<790	<790
SL096 2-4	<800	<800	<800 UJ	<3900	<800	<800	<800	<800	<800	<800
SL097 1-3A	<3900	<3900	<3900	<19000	<3900	<3900	<3900	**2200** J	<3900	**1000** J
SL097 7-9	<790	<790	<790	<3800	<790	<790	<790	**220** J	<790	<790

Notes:
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2,4-Trichloro-benzene	2,4,5-Trichloro-phenol	2,4,6-Trichloro-phenol	2,4-Dichloro-phenol	2,4-Dinitro-phenol	2,4-Dinitro-toluene	2-Chloronaph-thalene	2-Nitroaniline	4,6-Dinitro-2-Methylphenol	4-Chloro-aniline
FDER Soil Action Level(a)	---	---	---	---	---	---	*6000 ug/kg Total PAH*	---	---	---
EPA Prelim. Re-mediation Goal(b)	*2.7 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*	*810.0 x 10E3 ug/kg*	*540.0 x 10E3 ug/kg*	*0.9 x 10E3 ug/kg*	*21.6 x 10E6 ug/kg*	---	---	*1.08 x 10E6 ug/kg*
SL079 0-3"	<750	<3600	<750	<750	<3600UJ	<750	<750	<3600	<3600UJ	<750
SL079 4-6	<350	<1700	<350	<350	<1700	<350	<350	<1700	<1700	<350
SL080 0-3"	<730	<3600	<730	<730	<3600	<730	<730	<3600	<3600	<730
SL081 0-3"	<760	<3700	<760	<760	<3700	<760	<760	<3700	<3700	<760
SL081 3-5	<790	<3800	<790	<790	<3800	<790	<790	<3800	<3800	<790
SL082 0-3"	**800**	<3600	<750	<750	<3600UJ	<750	<750	<3600	<3600UJ	<750
SL082 3-5	<770	<3700	<770	<770	<3700UJ	<770	<770	<3700	<3700UJ	<770
SL082 3-5RE	**770** R	**3700** R	**770** R	**770** R	**3700** R	**770** R	**770** R	**3700** R	**3700** R	**770** R
SL083 0-3"	**170** J	<3400	<690	<690	<3400	<690	<690	<3400	<3400UJ	<690
SL083 5-7	<790	<3800	<790	<790	<3800	<790	<790	<3800	<3800UJ	<790
SL084 0-3"	<890	<4300	<890	<890	<4300	<890	<890	<4300	<4300	<890
SL085 0-3"	<840	<4100	<840	<840	<4100	<840	<840	<4100	<4100	<840
SL086 0-3"	<760	<3700	<760	<760	<3700	<760	<760	<3700	<3700	<760
SL087 0-3"	<1200	<5900	<1200	<1200	<5900	<1200	<1200	<5900	<5900	<1200
SL088 0-3"	<1100	<5500	<1100	<1100	<5500	<1100	<1100	<5500	<5500	<1100
SL089 0-3"	<840	<4100	<840	<840	<4100	<840	<840	<4100	<4100	<840
SL090 0-3"	<930	<4500	<930	<930	<4500	<930	<930	<4500	<4500	<930
SL091 0-3"	<810	<4000	<810	<810	<4000	<810	<810	<4000	<4000	<810
SL092 0-3"	<920	<4400	<920	<920	<4400	<920	<920	<4400	<4400	<920
SL093 0-3"	<870	<4200	<870	<870	<4200	<870	<870	<4200	<4200	<870
SL094 0-3"	<740	<3600	<740	<740	<3600	<740	<740	<3600	<3600	<740
SL095 0-3"	<740	<3600	<740	<740	<3600	<740	<740	<3600	<3600	<740
SL096 0-3"	<790	<3800	<790	<790	<3800	<790	<790	<3800	<3800	<790
SL096 2-4	<800	<3900	<800	<800	<3900	<800	<800	<3900	<3900	<800
SL097 1-3A	<3900	<19000	<3900	<3900	<19000	<3900	<3900	<19000	<19000	<3900
SL097 7-9	<790	<3800	<790	<790	<3800	<790	<790	<3800	<3800	<790

Notes:
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	2,6-Dinitro-toluene	2-Methylnaph-thalene	2-Methyl-phenol	3,3'-Dichloro-benzidine	4-Bromo-phenyl phenylether	4-Chloro-3-Methyl-phenol	4-Chloro-phenyl-phenylether	4-Methyl-phenol	3-Nitroaniline	4-Nitroaniline
FDER Soil Action Level(a)	---	*6000 ug/kg Total PAH*	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*0.94 x 10E3 ug/kg*	---	*13.5 x 10E6 ug/kg*	*1.4 x 10E3 ug/kg*	---	---	---	*13.5 x 10E6 ug/kg*	---	---
SL079 0-3"	<750	<750	<750	<1500	<750	<750	<750	<750	<3600	<3600
SL079 4-6	<350	<350	<350	<700	<350	<350	<350	<350	<1700	<1700
SL080 0-3"	<730	<730	<730	<1500	<730	<730	<730	<730	<3600	<3600
SL081 0-3"	<760	<760	<760	<1500	<760	<760	<760	<760	<3700	<3700
SL081 3-5	<790	<790	<790	<1600	<790	<790	<790	<790	<3800	<3800
SL082 0-3"	<750	**670** J	<750	<1500	<750	<750	<750	**150** J	<3600	<3600
SL082 3-5	<770	<770	<770	<1500	<770	<770	<770	<770	<3700	<3700
SL082 3-5RE	**770** R	**770** R	**770** R	**1500** R	**770** R	**770** R	**770** R	**770** R	**3700** R	**3700** R
SL083 0-3"	<690	**130** J	<690	<1400	<690	<690	<690	<690	<3400	<3400
SL083 5-7	<790	**1100**	<790	<1600	<790	<790	<790	<790	<3800	<3800
SL084 0-3"	<890	<890	<890	<1800	<890	<890	<890	<890	<4300	<4300
SL085 0-3"	<840	<840	<840	<1700	<840	<840	<840	<840	<4100	<4100
SL086 0-3"	<760	<760	<760	<1500	<760	<760	<760	<760	<3700	<3700
SL087 0-3"	<1200	<1200	<1200	<2400	<1200	<1200	<1200	<1200	<5900	<5900
SL088 0-3"	<1100	<1100	<1100	<2300	<1100	<1100	<1100	<1100	<5500	<5500
SL089 0-3"	<840	<840	<840	<1700	<840	<840	<840	<840	<4100	<4100
SL090 0-3"	<930	<930	<930	<1900	<930	<930	<930	<930	<4500	<4500
SL091 0-3"	<810	<810	<810	<1600	<810	<810	<810	<810	<4000	<4000
SL092 0-3"	<920	<920	<920	<1800	<920	<920	<920	<920	<4400	<4400
SL093 0-3"	<870	<870	<870	<1700	<870	<870	<870	<870	<4200	<4200
SL094 0-3"	<740	<740	<740	<1500	<740	<740	<740	<740	<3600	<3600
SL095 0-3"	<740	<740	<740	<1500	<740	<740	<740	<740	<3600	<3600
SL096 0-3"	<790	<790	<790	<1600	<790	<790	<790	<790	<3800	<3800
SL096 2-4	<800	<800	<800	<1600	<800	<800	<800	<800	<3900	<3900
SL097 1-3A	<3900	**1800** J	<3900	<7900	<3900	<3900	<3900	<3900	<19000	<19000
SL097 7-9	<790	<790	<790	<1600	<790	<790	<790	<790	<3800	<3800

Notes:
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Benzyl Alcohol	Butylbenzyl-phthalate	Di-n-butyl-phthalate	Di-n-octyl-phthalate	Diethylph-thalate	Dimethyl-phthalate	Hexachloro-benzene	Hexachloro-butadiene	Pentachloro-phenol	bis(2-Ethyl-hexyl) phthalate
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*81.0 x 10E6 ug/kg*	*54.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*5.4 x 10E6 ug/kg*	*216.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*0.4 x 10E3 ug/kg*	*8.2 x 10E3 ug/kg*	*5.3 x 10E3 ug/kg*	*45.7 x 10E3 ug/kg*
SL079 0-3"	<750	<750	<750	<750	<750	<750	<750	<750	<3600	**240** J
SL079 4-6	<350	<350	<350	<350	<350	<350	<350	<350	<1700	**61** J
SL080 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<3600	<730
SL081 0-3"	<760	<760	<760	<760	<760	<760	<760	<760	<3700	<760
SL081 3-5	<790	<790	<790	<790	<790	<790	<790	<790	<3800	<790
SL082 0-3"	<750	<750	**230** J	<750	<750	<750	<750	<750	<3600	<750
SL082 3-5	<770	<770	<770	<770	<770	<770	<770	<770	<3700	<770
SL082 3-5RE	**770** R	**770** R	**770** R	**770** R	**770** R	**770** R	**770** R	**770** R	**3700** R	**770** R
SL083 0-3"	<690	<690	**84** J	<690	<690	<690	<690	<690	<3400	<690
SL083 5-7	<790	<790	<790	<790	<790	<790	<790	<790	<3800	<790
SL084 0-3"	<890	<890	<890	<890	<890	<890	<890	<890	<4300	**95** J
SL085 0-3"	<840	<840	<840	<840	<840	<840	<840	<840	<4100	<840
SL086 0-3"	<760	<760	**100** J	<760	<760	<760	<760	<760	<3700	**1500**
SL087 0-3"	<1200	<1200	<1200	<1200	<1200	<1200	<1200	<1200	<5900	<1200
SL088 0-3"	<1100	<1100	<1100	<1100	<1100	<1100	<1100	<1100	<5500	**3400**
SL089 0-3"	<840	<840	<840	<840	<840	<840	<840	<840	<4100	**310** J
SL090 0-3"	<930	<930	<930	<930	<930	<930	<930	<930	<4500	<930
SL091 0-3"	<810	<810	<810	<810	<810	<810	<810	<810	<4000	**170** J
SL092 0-3"	<920	<920	<920	<920	<920	<920	<920	<920	<4400	**280** J
SL093 0-3"	<870	<870	<870	<870	<870	<870	<870	<870	<4200	**380** J
SL094 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<3600	<740
SL095 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<3600	<740
SL096 0-3"	<790	<790	<790	<790	<790	<790	<790	<790	<3800	**310** J
SL096 2-4	<800	<800	<800	<800	<800	<800	<800	<800	<3900	**400** J
SL097 1-3A	<3900	<3900	<3900	<3900	<3900	<3900	<3900	<3900	<19000	**4300**
SL097 7-9	<790	<790	<790	<790	<790	<790	<790	<790	<3800	**2400**

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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenz (a,h) anthracene
FDER Soil Action Level(a)	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*
EPA Prelim. Remediation Goal(b)	*16.2 x 10E6 ug/kg*	---	*81.0 x 10E6 ug/kg*	---	*ug/kg*	---	---	---	---	---
SL079 0-3"	<750	<750	<750	<750	<750	**180** J	<750	<750	<750	<750
SL079 4-6	<350	<350	<350	<350	<350	<350	<350	<350	<350	<350
SL080 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<730	<730
SL081 0-3"	<760	<760	<760	<760	<760	<760	<760	<760	<760	<760
SL081 3-5	<790	<790	**81** J	<790	<790	<790	**200** J	<790	<790	<790
SL082 0-3"	<750	<750	<750	<750	<750	**76** J	**290** J	<750	<750	<750
SL082 3-5	<770	<770	<770	<770	<770	<770	<770	<770	**92** J	<770
SL082 3-5RE	**770** R	**770** R	**770** R	**770** R	**770** R	**770** R	**770** R	**770** R	**81** R	**770** R
SL083 0-3"	<690	<690	<690	<690	**81** J	<690	**160** J	<690	<690	<690
SL083 5-7	<790	<790	<790	<790	<790	<790	<790	<790	<790	<790
SL084 0-3"	<890	<890	<890	**430** J	<890	<890	<890	<890	**460** J	<890
SL085 0-3"	<840	<840	<840	<840	<840	**89** J	<840	<840	<840	<840
SL086 0-3"	<760	<760	<760	**150** J	<760	**330** J	**190** J	**170** J	**190** J	<760
SL087 0-3"	<1200	<1200	<1200	<1200	<1200	<1200	<1200	<1200	<1200	<1200
SL088 0-3"	<1100	<1100	<1100	<1100	<1100	<1100	<1100	<1100	<1100	<1100
SL089 0-3"	<840	<840	<840	<840	<840	<840	<840	<840	<840	<840
SL090 0-3"	<930	<930	<930	<930	<930	<930	<930	<930	<930	<930
SL091 0-3"	<810	<810	<810	<810	<810	<810	<810	<810	<810	<810
SL092 0-3"	<920	<920	<920	<920	<920	<920	<920	<920	<920	<920
SL093 0-3"	<870	<870	<870	<870	<870	<870	<870	<870	<870	<870
SL094 0-3"	<740	<740	<740	<740	<740	<740	<740	<740	<740	<740
SL095 0-3"	<740	**160** J	<740	**290** J	**260** J	**740** J	**710** J	**470** J	**390** J	**160** J
SL096 0-3"	<790	<790	<790	<790	<790	<790	<790	<790	<790	<790
SL096 2-4	<800	<800	<800	<800	<800	<800	<800	<800	<800	<800
SL097 1-3A	<3900	<3900	<3900	<3900	<3900	<3900	<3900	<3900	<3900	<3900
SL097 7-9	<790	<790	<790	<790	<790	<790	<790	<790	<790	<790

Notes:
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SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
FDER Soil Action Level(a)	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*
EPA Prelim. Remediation Goal(b)	*10.8 x 10E3 ug/kg*	*10.8 x 10E3 ug/kg*	*1.1 x 10E3 ug/kg*	*1 08 x 10E6 ug/kg*	---	*8.1 x 10E6 ug/kg*
SL079 0-3"	**160** J	<750	<750	<750	<750	**190** J
SL079 4-6	<350	<350	<350	<350	<350	<350
SL080 0-3"	<730	<730	<730	<730	<730	<730
SL081 0-3"	<760	<760	<760	<760	<760	<760
SL081 3-5	**440** J	<790	**170** J	<790	**240** J	**330** J
SL082 0-3"	**84** J	<750	<750	<750	<750	**140** J
SL082 3-5	**140** J	<770	<770	<770	<770	**160** J
SL082 3-5RE	**98** R	**770** R	**770** R	**770** R	**770** R	**120** R
SL083 0-3"	**99** J	<690	**98** J	<690	<690	**120** J
SL083 5-7	<790	<790	<790	**410** J	<790	**84** J
SL084 0-3"	**650** J	<890	**360** J	<890	<890	**470** J
SL085 0-3"	**94** J	<840	<840	<840	<840	**100** J
SL086 0-3"	**190** J	<760	**180** J	<760	**77** J	**200** J
SL087 0-3"	<1200	<1200	<1200	<1200	<1200	<1200
SL088 0-3"	<1100	<1100	<1100	<1100	<1100	<1100
SL089 0-3"	<840	<840	<840	<840	<840	<840
SL090 0-3"	<930	<930	<930	<930	<930	<930
SL091 0-3"	<810	<810	<810	<810	<810	<810
SL092 0-3"	<920	<920	<920	<920	<920	<920
SL093 0-3"	<870	<870	<870	<870	<870	<870
SL094 0-3"	<740	<740	<740	<740	<740	<740
SL095 0-3"	**310** J	<740	**630** J	<740	<740	**360** J
SL096 0-3"	<790	<790	<790	<790	<790	<790
SL096 2-4	<800	<800	<800	<800	<800	<800
SL097 1-3A	**730** J	<3900	<3900	**1200** J	<3900	<3900
SL097 7-9	<790	<790	<790	<790	<790	<790

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2-Dichloro-benzene	1,4-Dichloro-benzene	2,4-Dimethyl-phenol	2-Chloro-phenol	2-Nitrophenol	Benzoic acid	Hexachloro-ethane	Isophorone	N-Nitroso-di-N-propylamine	Nitrobenzene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*24.3 x 10E6 ug/kg*	*26.7 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	*1.35 x 10E6 ug/kg*	---	*1.08 x 10E9 ug/kg*	*45.7 x 10E3 ug/kg*	*156.1 x 10E3 ug/kg*	*0.1 x 10E3 ug/kg*	*135.0 x 10E3 ug/kg*
SL098 7-9	**280** J	<770	<770	<770	<770	<3700	<770	<770	<770	<770
SL099 5-7	<800	<800	<800	<800	<800	<3900	<800	<800	<800	<800
SL099 5-7DL	**2000** R	**2000** R	**2000** R	**2000** R	**2000** R	**9800** R	**2000** R	**2000** R	**2000** R	**2000** R
SL100 4-6	<760	<760	<760	<760	<760	<3700	<760	<760	<760	<760
SL27001 0-3"	<720	<720	<720	<720	<720	<3500	<720	<720	<720	<720
SL27001 2-4	<720	<720	<720	<720	<720	<3500	<720	<720	<720	<720
SL27002 0-3"	<730	<730	<730	<730	<730	<3600	<730	<730	<730	<730
SL27002 2-4	<710	<710	<710	<710	<710	<3400	<710	<710	<710	<710
SL27003 0-3"	<750	<750	<750	<750	<750	<3600	<750	<750	<750	<750
SL27003 2-4	<360	<360	<360	<360	<360	<1700	<360	<360	<360	<360
SL27004 0-3"	<720	<720	<720	<720	<720	<3500	<720	<720	<720	<720
SL27004 2-4	<380	<380	<380	<380	<380	<1900	<380	<380	<380	<380
SL27005 0-3"	<750	<750	<750	<750	<750	<3600	<750	<750	<750	<750
SL27005 2-4	<380	<380	<380	<380	<380	<1900	<380	<380	<380	<380
SL27006 0-3"	<730	<730	<730	<730	<730	<3500	<730	<730	<730	<730
SL27006 2-4	<740	<740	<740	<740	<740	<3600	<740	<740	<740	<740
SL27007 0-3"	<730	<730	<730	<730	<730	<3500	<730	<730	<730	<730
SL27007 2-4	<760	<760	<760	<760	<760	<3700	<760	<760	<760	<760
SL27008 0-3"	<710	<710	<710	<710	<710	<3400	<710	<710	<710	<710
SL27008 2-4	<370	<370	<370	<370	<370	<1800	<370	<370	<370	<370
SL27009 0-3"	<730	<730	<730	<730	<730	<3500	<730	<730	<730	<730
SL27009 2-4	<720	<720	<720	<720	<720	<3500	<720	<720	<720	<720
SL27010 0-3"	<720	<720	<720	<720	<720	<3500	<720	<720	<720	<720
SL27010 2-4	<370	<370	<370	<370	<370	<1800	<370	<370	<370	<370
SL27011 0-3"	<730	<730	<730	<730	<730	<3500	<730	<730	<730	<730
SL27011 2-4	<370	<370	<370	<370	<370	<1800	<370	<370	<370	<370

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Phenol	bis (2-Chloroethyl) ether	bis(2-Chloro- isopropyl) ether	4-Nitrophenol	Dibenzofuran	Dimethyl- phthalate	Hexachloro- cyclopenta- diene	N-Nitroso- diphenylamine (1)	bis(2-Chloro- ethoxy) methane	1,3-Dichloro- benzene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re- mediation Goal(b)	*162.0 x 10E6 ug/kg*	*0 6 x 10E3 ug/kg*	*9.1 x 10E3 ug/kg*	---	---	*270.0 x 10E6 ug/kg*	*1.89 x 10E6 ug/kg*	---	---	---
SL098 7-9	<770	<770	<770	<3700	<770	<770	<770	**190** J	<770	<770
SL099 5-7	<800	<800	<800	<3900	<800	<800	<800	**420** J	<800	<800
SL099 5-7DL	**2000** R	**2000** R	**2000** R	**9800** R	**2000** R	**2000** R	**2000** R	**2000** R	**2000** R	**2000** R
SL100 4-6	<760	<760	<760	<3700	<760	<760	<760	<760	<760	<760
SL27001 0-3"	<720	<720	<720 UJ	<3500	<720	<720	<720	<720	<720	<720
SL27001 2-4	<720	<720	<720 UJ	<3500	<720	<720	<720	<720	<720	<720
SL27002 0-3"	<730	<730	<730	<3600	<730	<730	<730	<730	<730	<730
SL27002 2-4	<710	<710	<710	<3400	<710	<710	<710	<710	<710	<710
SL27003 0-3"	<750	<750	<750	<3600	<750	<750	<750	<750	<750	<750
SL27003 2-4	<360	<360	<360	<1700	<360	<360	<360	<360	<360	<360
SL27004 0-3"	<720	<720	<720	<3500	<720	<720	<720	<720	<720	<720
SL27004 2-4	<380	<380	<380	<1900	<380	<380	<380	<380	<380	<380
SL27005 0-3"	<750	<750	<750	<3600	<750	<750	<750	<750	<750	<750
SL27005 2-4	<380	<380	<380	<1900	<380	<380	<380	<380	<380	<380
SL27006 0-3"	<730	<730	<730	<3500	<730	<730	<730	<730	<730	<730
SL27006 2-4	<740	<740	<740	<3600	<740	<740	<740	<740	<740	<740
SL27007 0-3"	<730	<730	<730	<3500	<730	<730	<730	<730	<730	<730
SL27007 2-4	<760	<760	<760	<3700	<760	<760	<760	<760	<760	<760
SL27008 0-3"	<710	<710	<710	<3400	<710	<710	<710	<710	<710	<710
SL27008 2-4	<370	<370	<370	<1800	<370	<370	<370	<370	<370	<370
SL27009 0-3"	<730	<730	<730	<3500	<730	<730	<730	<730	<730	<730
SL27009 2-4	<720	<720	<720	<3500	<720	<720	<720	<720	<720	<720
SL27010 0-3"	<720	<720	<720	<3500	<720	<720	<720	<720	<720	<720
SL27010 2-4	<370	<370	<370	<1800	<370	<370	<370	<370	<370	<370
SL27011 0-3"	<730	<730	<730	<3500	<730	<730	<730	<730	<730	<730
SL27011 2-4	<370	<370	<370	<1800	<370	<370	<370	<370	<370	<370

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2,4-Trichloro-benzene	2,4,5-Trichloro-phenol	2,4,6-Trichloro-phenol	2,4-Dichloro-phenol	2,4-Dinitro-phenol	2,4-Dinitro-toluene	2-Chloronaph-thalene	2-Nitroaniline	4,6-Dinitro-2-Methylphenol	4-Chloro-aniline
FDER Soil Action Level(a)	---	---	---	---	---	---	*6000 ug/kg Total PAH*	---	---	---
EPA Prelim. Re-mediation Goal(b)	*2 7 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*	*810.0 x 10E3 ug/kg*	*540.0 x 10E3 ug/kg*	*0.9 x 10E3 ug/kg*	*21 6 x 10E6 ug/kg*	---	---	*1 08 x 10E6 ug/kg*
SL098 7-9	<770	<3700	<770	<770	<3700	<770	<770	<3700	<3700	<770
SL099 5-7	<800	<3900	<800	<800	<3900	<800	<800	<3900	<3900	<800
SL099 5-7DL	**2000** R	**9800** R	**2000** R	**2000** R	**9800** R	**2000** R	**2000** R	**9800** R	**9800** R	**2000** R
SL100 4-6	<760	<3700	<760	<760	<3700	<760	<760	<3700	<3700	<760
SL27001 0-3"	<720	<3500	<720	<720	<3500	<720	<720	<3500	<3500	<720
SL27001 2-4	<720	<3500	<720	<720	<3500	<720	<720	<3500	<3500	<720
SL27002 0-3"	<730	<3600	<730	<730	<3600	<730	<730	<3600	<3600	<730
SL27002 2-4	<710	<3400	<710	<710	<3400	<710	<710	<3400	<3400	<710
SL27003 0-3"	<750	<3600	<750	<750	<3600	<750	<750	<3600	<3600	<750
SL27003 2-4	<360	<1700	<360	<360	<1700	<360	<360	<1700	<1700	<360
SL27004 0-3"	<720	<3500	<720	<720	<3500	<720	<720	<3500	<3500	<720
SL27004 2-4	<380	<1900	<380	<380	<1900	<380	<380	<1900	<1900	<380
SL27005 0-3"	<750	<3600	<750	<750	<3600	<750	<750	<3600	<3600	<750
SL27005 2-4	<380	<1900	<380	<380	<1900	<380	<380	<1900	<1900	<380
SL27006 0-3"	<730	<3500	<730	<730	<3500	<730	<730	<3500	<3500	<730
SL27006 2-4	<740	<3600	<740	<740	<3600	<740	<740	<3600	<3600	<740
SL27007 0-3"	<730	<3500	<730	<730	<3500	<730	<730	<3500	<3500	<730
SL27007 2-4	<760	<3700	<760	<760	<3700	<760	<760	<3700	<3700	<760
SL27008 0-3"	<710	<3400	<710	<710	<3400	<710	<710	<3400	<3400	<710
SL27008 2-4	<370	<1800	<370	<370	<1800	<370	<370	<1800	<1800	<370
SL27009 0-3"	<730	<3500	<730	<730	<3500	<730	<730	<3500	<3500	<730
SL27009 2-4	<720	<3500	<720	<720	<3500	<720	<720	<3500	<3500	<720
SL27010 0-3"	<720	<3500	<720	<720	<3500	<720	<720	<3500	<3500	<720
SL27010 2-4	<370	<1800	<370	<370	<1800	<370	<370	<1800	<1800	<370
SL27011 0-3"	<730	<3500	<730	<730	<3500	<730	<730	<3500	<3500	<730
SL27011 2-4	<370	<1800	<370	<370	<1800	<370	<370	<1800	<1800	<370

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SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	2,6-Dinitro-toluene	2-Methylnaph-thalene	2-Methyl-phenol	3,3'-Dichloro-benzidine	4-Bromo-phenyl phenylether	4-Chloro-3-Methyl-phenol	4-Chloro-phenyl-phenylether	4-Methyl-phenol	3-Nitroaniline	4-Nitroaniline
FDER Soil Action Level(a)	---	*6000 ug/kg Total PAH*	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*0.94 x 10E3 ug/kg*	---	*13.5 x 10E6 ug/kg*	*1.4 x 10E3 ug/kg*	---	---	---	*13.5 x 10E6 ug/kg*	---	---
SL098 7-9	<770	<770	<770	<1500	<770	<770	<770	<770	<3700	<3700
SL099 5-7	<800	**17000** R	<800	<1600	<800	<800	<800	<800	<3900	<3900
SL099 5-7DL	**2000** R	**15000**	**2000** R	**4000** R	**2000** R	**2000** R	**2000** R	**2000** R	**9800** R	**9800** R
SL100 4-6	<760	<760	<760	<1500	<760	<760	<760	<760	<3700	<3700
SL27001 0-3"	<720	<720	<720	<1400	<720	<720	<720	<720	<3500	<3500
SL27001 2-4	<720	<720	<720	<1400	<720	<720	<720	<720	<3500	<3500
SL27002 0-3"	<730	<730	<730	<1500	<730	<730	<730	<730	<3600	<3600
SL27002 2-4	<710	<710	<710	<1400	<710	<710	<710	<710	<3400	<3400
SL27003 0-3"	<750	<750	<750	<1500	<750	<750	<750	<750	<3600	<3600
SL27003 2-4	<360	<360	<360	<720	<360	<360	<360	<360	<1700	<1700
SL27004 0-3"	<720	<720	<720	<1400	<720	<720	<720	<720	<3500	<3500
SL27004 2-4	<380	<380	<380	<770	<380	<380	<380	<380	<1900	<1900
SL27005 0-3"	<750	<750	<750	<1500	<750	<750	<750	<750	<3600	<3600
SL27005 2-4	<380	<380	<380	<770	<380	<380	<380	<380	<1900	<1900
SL27006 0-3"	<730	<730	<730	<1500	<730	<730	<730	<730	<3500	<3500
SL27006 2-4	<740	<740	<740	<1500	<740	<740	<740	<740	<3600	<3600
SL27007 0-3"	<730	<730	<730	<1500	<730	<730	<730	<730	<3500	<3500
SL27007 2-4	<760	<760	<760	<1500	<760	<760	<760	<760	<3700	<3700
SL27008 0-3"	<710	<710	<710	<1400	<710	<710	<710	<710	<3400	<3400
SL27008 2-4	<370	<370	<370	<730	<370	<370	<370	<370	<1800	<1800
SL27009 0-3"	<730	<730	<730	<1500	<730	<730	<730	<730	<3500	<3500
SL27009 2-4	<720	<720	<720	<1400	<720	<720	<720	<720	<3500	<3500
SL27010 0-3"	<720	<720	<720	<1400	<720	<720	<720	<720	<3500	<3500
SL27010 2-4	<370	<370	<370	<730	<370	<370	<370	<370	<1800	<1800
SL27011 0-3"	<730	<730	<730	<1500	<730	<730	<730	<730	<3500	<3500
SL27011 2-4	<370	<370	<370	<730	<370	<370	<370	<370	<1800	<1800

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SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Benzyl Alcohol	Butylbenzyl-phthalate	Di-n-butyl-phthalate	Di-n-octyl-phthalate	Diethylph-thalate	Dimethyl-phthalate	Hexachloro-benzene	Hexachloro-butadiene	Pentachloro-phenol	bis(2-Ethyl-hexyl) phthalate
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*81.0 x 10E6 ug/kg*	*54.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*5.4 x 10E6 ug/kg*	*216.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*0.4 x 10E3 ug/kg*	*8.2 x 10E3 ug/kg*	*5.3 x 10E3 ug/kg*	*45.7 x 10E3 ug/kg*
SL098 7-9	<770	<770	<770	<770	<770	<770	<770	<770	<3700	**620** J
SL099 5-7	<800	<800	<800	<800	<800	<800	<800	<800	<3900	**250** J
SL099 5-7DL	**2000** R	**2000** R	**2000** R	**2000** R	**2000** R	**2000** R	**2000** R	**2000** R	**9800** R	**430** R
SL100 4-6	<760	<760	**110** J	<760	<760	<760	<760	<760	<3700	<760
SL27001 0-3"	<720	**250** J	<720	<720	<720	<720	<720	<720	<3500	**150** J
SL27001 2-4	<720	<720	<720	<720	<720	<720	<720	<720	<3500	<720
SL27002 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<3600	<730
SL27002 2-4	<710	<710	<710	<710	<710	<710	<710	<710	<3400	**95** J
SL27003 0-3"	<750	<750	<750	<750	<750	<750	<750	<750	<3600	**86** J
SL27003 2-4	<360	<360	<360	<360	<360	<360	<360	<360	<1700	<360
SL27004 0-3"	<720	**470** J	<720	<720	<720	<720	<720	<720	<3500	**200** J
SL27004 2-4	<380	<380	<380	<380	<380	<380	<380	<380	<1900	**190** J
SL27005 0-3"	<750	<750	**190** J	<750	<750	<750	<750	<750	<3600	**150** J
SL27005 2-4	<380	<380	<380	<380	<380	<380	<380	<380	<1900	**82** J
SL27006 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<3500	<730
SL27006 2-4	<740	<740	<740	<740	<740	<740	<740	<740	<3600	<740
SL27007 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<3500	<730
SL27007 2-4	<760	<760	<760	<760	<760	<760	<760	<760	<3700	<760
SL27008 0-3"	<710	<710	<710	<710	<710	<710	<710	<710	<3400	**90** J
SL27008 2-4	<370	<370	<370	<370	<370	<370	<370	<370	<1800	**39** J
SL27009 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<3500	<730
SL27009 2-4	<720	<720	<720	<720	<720	<720	<720	<720	<3500	<720
SL27010 0-3"	<720	<720	<720	<720	<720	<720	<720	<720	<3500	<720
SL27010 2-4	<370	<370	<370	<370	<370	<370	<370	<370	<1800	<370
SL27011 0-3"	<730	<730	**78** J	<730	<730	<730	<730	<730	<3500	**150** J
SL27011 2-4	<370	<370	<370	<370	<370	<370	<370	<370	<1800	**47** J

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenz (a,h) anthracene
FDER Soil Action Level(a)	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*
EPA Prelim. Remediation Goal(b)	*16.2 x 10E6 ug/kg*	---	*81.0 x 10E6 ug/kg*	---	*ug/kg*	---	---	---	---	---
SL098 7-9	<770	<770	<770	<770	<770	<770	<770	<770	<770	<770
SL099 5-7	**540** J	<800	<800	**320** J	**250** J	**320** J	**280** J	**240** J	**340** J	**160** J
SL099 5-7DL	**1000** R	**2000** R	**210** R	**320** R	**280** R	**360** R	**320** R	**330** R	**390** R	**2000** R
SL100 4-6	<760	<760	<760	**150** J	**150** J	**190** J	**140** J	**150** J	**170** J	<760
SL27001 0-3"	<720	<720	<720	<720	**240** J	**230** J	**270** J	**190** J	<720	<720
SL27001 2-4	<720	<720	<720	<720	<720	<720	<720	<720	<720	<720
SL27002 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<730	<730
SL27002 2-4	<710	<710	<710	<710	<710	<710	<710	<710	<710	<710
SL27003 0-3"	<750	<750	<750	<750	**86** J	**83** J	<750	<750	<750	<750
SL27003 2-4	<360	<360	<360	<360	<360	<360	<360	<360	<360	<360
SL27004 0-3"	<720	<720	<720	<720	<720	<720	<720	<720	<720	<720
SL27004 2-4	<380	<380	<380	<380	<380	<380	<380	<380	<380	<380
SL27005 0-3"	<750	<750	<750	<750	**78** J	<750	<750	<750	<750	<750
SL27005 2-4	<380	<380	<380	<380	<380	<380	<380	<380	<380	<380
SL27006 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<730	<730
SL27006 2-4	<740	<740	<740	<740	<740	<740	<740	<740	<740	<740
SL27007 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	<730	<730
SL27007 2-4	<760	<760	<760	<760	<760	<760	<760	<760	<760	<760
SL27008 0-3"	<710	<710	<710	<710	<710	<710	<710	<710	<710	<710
SL27008 2-4	<370	<370	<370	<370	<370	<370	<370	<370	<370	<370
SL27009 0-3"	<730	<730	<730	<730	<730	<730	<730	<730	**76** J	<730
SL27009 2-4	<720	<720	<720	<720	<720	<720	<720	<720	<720	<720
SL27010 0-3"	<720	<720	<720	**120** J	**120** J	**130** J	**110** J	**110** J	**160** J	<720
SL27010 2-4	<370	<370	<370	<370	<370	<370	<370	<370	<370	<370
SL27011 0-3"	<730	<730	<730	**170** J	**170** J	**220** J	**150** J	**190** J	**250** J	<730
SL27011 2-4	<370	<370	<370	<370	<370	<370	<370	<370	<370	<370

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
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APPENDIX C-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS EPA METHOD 8270 M TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
FDER Soil Action Level(a)	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*	*6000 ug/kg*
EPA Prelim. Remediation Goal(b)	*10.8 x 10E3 ug/kg*	*10.8 x 10E3 ug/kg*	*1 1 x 10E3 ug/kg*	*1.08 x 10E6 ug/kg*	---	*8 1 x 10E6 ug/kg*
SL098 7-9	<770	<770	<770	<770	<770	**130** J
SL099 5-7	**710** J	**1100**	**240** J	**1800**	**770** J	**650** J
SL099 5-7DL	**610** R	**1400** R	**260** R	**1900** R	**2500** R	**620** R
SL100 4-6	**200** J	<760	**140** J	<760	<760	**180** J
SL27001 0-3"	<720	<720	**220** J	<720	<720	**100** J
SL27001 2-4	<720	<720	<720	<720	<720	<720
SL27002 0-3"	<730	<730	<730	<730	<730	<730
SL27002 2-4	<710	<710	<710	<710	<710	<710
SL27003 0-3"	**80** J	<750	<750	<750	<750	**85** J
SL27003 2-4	<360	<360	<360	<360	<360	<360
SL27004 0-3"	<720	<720	<720	<720	<720	<720
SL27004 2-4	<380	<380	<380	<380	<380	<380
SL27005 0-3"	<750	<750	<750	<750	<750	<750
SL27005 2-4	<380	<380	<380	<380	<380	<380
SL27006 0-3"	<730	<730	<730	<730	<730	<730
SL27006 2-4	<740	<740	<740	<740	<740	<740
SL27007 0-3"	<730	<730	<730	<730	<730	<730
SL27007 2-4	<760	<760	<760	<760	<760	<760
SL27008 0-3"	<710	<710	<710	<710	<710	<710
SL27008 2-4	<370	<370	<370	<370	<370	<370
SL27009 0-3"	<730	<730	<730	<730	<730	<730
SL27009 2-4	<720	<720	<720	<720	<720	<720
SL27010 0-3"	**200** J	<720	**90** J	<720	<720	**190** J
SL27010 2-4	<370	<370	<370	<370	<370	<370
SL27011 0-3"	**250** J	<730	**130** J	<730	<730	**250** J
SL27011 2-4	<370	<370	<370	<370	<370	<370

Notes:
1 All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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Appendix C-3
Pesticides/PCB Analytical Summary

APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254
EPA Prelim. Remediation Goal(a)	*2700 ug/kg*	*1900 ug/kg*	*1900 ug/kg*	*38 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*
EPA August 1990, PCBs(b)	---	---	---	---	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*
SL011 0-3"	<35	<13	<38	<13	<150	<380	<380	<150	<150	<76
SL011 2-4	<34	<13	<37	<13	<150	<370	<370	<150	<150	<74
SL012 0-3"	<35	**6.7** J	**24** J	<13	<150	<380	<380	<150	<150	**340**
SL013 0-3"	<85	<31	<92	<31	<370	<920	<920	<370	<370	<180
SL013 2-4	<850	<310	<920	<310	<3700	<9200	<9200	<3700	**3700**	<1800
SL014 0-3"	<1600	<600	<1800	<600	<7100	<18000	<18000	<7100	<7100	<3600
SL015 0-3" DL (c)	<390	<140	<430	<140	<1700 UJ	<4300 UJ	<4300 UJ	<1700 UJ	<850 UJ	<850 UJ
SL015 0-3"	<17	<6 1	<18	<6.1	<72	<180	<180	<72	<72	<36
SL016 0-3"	<20	<7 2	<21	<7 2	<85	<210	<210	<85	<85	<43
SL017 0-3"	<90	<33	<98	<33	<390	<980	<980	<390	<390	<200
SL018 0-3"	<37	<14	<41	<14	<160	<410	<410	<160	<160	<81
SL019 0-3"	**99** J	**71**	**76** J	<61	<730	<1800	<1800	<730	<730	<360
SL020 0-3"	<340	<130	<370	<130	<1500	<3700	<3700	<1500	<1500	**3600**
SL021 0-3" DL (c)	<770	<280	<830	<280	<3300 UJ	<8300 UJ	<8300 UJ	<3300 UJ	<1700 UJ	<1700 UJ
SL021 0-3"	<84	<31	<91	<31	<360	<910	<910	<360	<360	<180
SL022 0-3"	<360	**110** J	<390	<130	<1600	<3900	<3900	<1600	<1600	<780
SL022 2-4	<91	**95**	<99	<33	<400	<990	<990	<400	<400	**1900**
SL023 0-3"	<38	<14	<41	<14	<160	<410	<410	<160	<160	<82
SL024 0-3"	<1800	<640	<1900	<640	<7600	<19000	<19000	<7600	<7600	<3800
SL024 2-4	**300** J	<160	<470	<160	<1900	<4700	<4700	<1900	<1900	<930
SL025 0-3"	**1100**	**110** J	**1100**	<130	<1600	<3900	<3900	<1600	<1600	<780
SL026 0-3"	<88	<32	<95	<32	<380	<950	<950	<380	<380	<190
SL026 2-4	**33** J	**45**	**10** J	<12	<140	<360	<360	<140	<140	<72
SL028 0-3"	**20** J	**40**	**30** J	<14	<170	<420	<420	<170	<170	<84
SL029 0-3"	**45** J	**31** J	<110	<36	<430	<1100	<1100	<430	<430	<220
SL032 0-3"	<860	<310	<930	<310	<3700	<9300	<9300	<3700	<3700	**3700**

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APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aroclor-1260	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
EPA Prelim. Remediation Goal(a)	*83 ug/kg*	*40 ug/kg*	---	*13500 ug/kg*	---	*81000 ug/kg*	---	---	---	---
EPA August 1990, PCBs(b)	*10000 ug/kg*	---	---	---	---	---	---	---	---	---
SL011 0-3"	<76	**39**	<19	<13	<38	<19	<38	<9 5	<19	<76
SL011 2-4	<74	**19**	<19	<13	<37	<19	<37	<9 3	<19	<74
SL012 0-3"	**830**	<6 1	<19	<13	<38	<19	<38	<9 4	<19	<75
SL013 0-3"	**1100**	<15	<46	<31	<92	<46	<92	<23	<46	<180
SL013 2-4	**9300**	<150	<460	<310	<920	<460	<920	<230	<460	<1800
SL014 0-3"	**44000**	<290	<890	<600	<1800	<890	<1800	<440	<890	<3600
SL015 0-3" DL (c)	**2700** J	<69	<210	<140	<430	<210	<430	<110	<210	<850
SL015 0-3"	**200**	<2 9	<9	<6 1	<18	<9	<18	<4 5	<9	<36
SL016 0-3"	**230**	<3 5	<11	<7 2	<21	<11	<21	<5 3	<11	<43
SL017 0-3"	**3100**	<16	<49	<33	<98	<49	<98	<24	<49	<200
SL018 0-3"	**770**	<6 6	<20	<14	<41	<20	<41	<10	<20	<81
SL019 0-3"	**1600**	<30	<91	<61	<180	<91	<180	<45	<91	<360
SL020 0-3"	**5400**	<60	<190	<130	<370	<190	<370	<93	<190	<740
SL021 0-3" DL (c)	**3700** J	<140	<420	<280	<830	<420	<830	<210	<420	<1700
SL021 0-3"	**2300**	<15	<45	<31	<91	<45	<91	<23	<45	<180
SL022 0-3"	**3300**	<63	<200	<130	<390	<200	<390	<98	<200	<780
SL022 2-4	**1900**	<16	<49	<33	<99	<49	<99	<25	<49	<200
SL023 0-3"	**1300**	<6 7	<21	<14	<41	<21	<41	<10	<21	<82
SL024 0-3"	**47000**	<310	<950	<640	<1900	<950	<1900	<480	<950	<3800
SL024 2-4	**10000**	<76	<230	<160	<470	<230	<470	<120	<230	<930
SL025 0-3"	**2800**	<63	<200	<130	<390	<200	<390	<98	<200	<780
SL026 0-3"	**560**	<15	<48	<32	<95	<48	<95	<24	<48	<190
SL026 2-4	<72	<5 8	<18	<12	<36	<18	<36	<9	<18	<72
SL028 0-3"	**950**	<6 8	<21	<14	<42	<21	<42	<11	<21	<84
SL029 0-3"	**830**	<18	<54	<36	<110	<54	<110	<27	<54	<220
SL032 0-3"	**1400** J	<150	<470	<310	<930	<470	<930	<230	<470	<1900

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
EPA Prelim. Remediation Goal(a)	---	---	---	---	---	---	---
EPA August 1990, PCBs(b)	---	---	---	---	---	---	---
SL011 0-3"	<310	<9 5	16	<19	<19	<13	<16
SL011 2-4	<310	<9 3	<15	<19	<19	<13	<15
SL012 0-3"	<310	<9 4	<16	<19	<19	<13	<16
SL013 0-3"	<760	<23	<38	<46	<46	<31	<38
SL013 2-4	<7600	<230	<380	<460	<460	<310	<380
SL014 0-3"	<15000	<440	<730	<890	<890	<600	<730
SL015 0-3" DL (c)	<3600	<110	<180	<210	<210	<140	<180
SL015 0-3"	<150	<4 5	<7 4	<9	<9	<6 1	<7 4
SL016 0-3"	<180	<5 3	<8 8	<11	<11	<7 2	<8 8
SL017 0-3"	<800	<24	<40	<49	<49	<33	<40
SL018 0-3"	<330	<10	<17	<20	<20	<14	<17
SL019 0-3"	<1500	<45	<75	<91	<91	<61	<75
SL020 0-3"	<3100	<93	<150	<190	<190	<130	<150
SL021 0-3" DL (c)	<7000	<210	<340	<420	<420	<280	<340
SL021 0-3"	<750	<23	<38	<45	<45	<31	<38
SL022 0-3"	<3200	<98	<160	<200	<200	<130	<160
SL022 2-4	<810	<25	<41	<49	<49	<33	<41
SL023 0-3"	<340	<10	<17	<21	<21	<14	<17
SL024 0-3"	<16000	<480	<790	<950	<950	<640	<790
SL024 2-4	<3800	<120	<190	<230	<230	<160	<190
SL025 0-3"	<3200	<98	<160	<200	<200	<130	<160
SL026 0-3"	<790	<24	<39	<48	<48	<32	<39
SL026 2-4	<300	<9	<15	<18	<18	<12	<15
SL028 0-3"	<350	<11	<17	<21	<21	<14	<17
SL029 0-3"	<890	<27	<45	<54	<54	<36	<45
SL032 0-3"	<7700	<230	<380	<470	<470	<310	<380

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254
EPA Prelim. Remediation Goal(a)	*2700 ug/kg*	*1900 ug/kg*	*1900 ug/kg*	*38 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*
EPA August 1990, PCBs(b)	---	---	---	---	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*
SL032 2-4	<850	<310	<920	<310	<3700	<9200	<9200	<3700	<3700	**2800**
SL033 0-3"	<170	<64	<190	<64	<750	<1900	<1900	<750	<750	<380
SL034 9-11	<370	<140	<400	<140	<1600	<4000	<4000	<1600	**13000**	<800
SL035 9-11	**18** J	**57**	**45**	<13	<150	<390	<390	<150	**700**	<77
SL039 10-12	<1800	<670	**1500** J	**1100**	<7900	<20000	<20000	<7900	**28000**	**25000**
SL040 7.5-8.5 DL (c)	<250	<90	<270	<90	<1100 UJ	<2700 UJ	<2700 UJ	**3700** J	<540 UJ	<540 UJ
SL040 9-11	<990	<360	**980** J	**670**	<4300	<11000	<11000	<4300	**4200** J	<2100
SL041 0-3"	<180	**130**	<200	<67	<790	<2000	<2000	<790	<790	<400
SL041 3-4	<370	**110** J	<400	<130	<1600	<4000	<4000	<1600	<1600	**1800**
SL042 0-3"	<33	**21**	**17** J	<12	<140	<360	<360	<140	<140	**590**
SL043 5-7	<840	<310	**670** J	**600**	<3600	<9100	<9100	<3600	**5200**	<1800
SL044 7-9	<9100	<3300	<9900	<3300	<40000	<99000	<99000	<40000	**270000**	**78000**
SL045 0-3"	<35	**23**	<38	<13	<150	<380	<380	<150	<150	**200**
SL047 3-5	<900	<330	**790** J	**630**	<3900	<9800	<9800	<3900	**8800**	<2000
SL048 0-3"	<3900	<1400	<4300	<1400	<17000	<43000	<43000	<17000	<17000	<8500
SL048 1-2	<1800	<680	<2000	<680	<8000	<20000	<20000	<8000	<8000	<4000
SL050 0-3"	<18	**33**	<19	<6 5	<77	<190	<190	<77	<77	<39
SL050 2-4	<9 6	<3 5	**11**	<3 5	<42	<100	<100	<42	<42	<21
SL051 0-3"	<20	<7 2	<21	<7 2	<85	<210	<210	<85	<85	<43
SL052 0-3"	<37	<14	<40	<14	<160	<400	<400	<160	<160	<80
SL052 1-2	<360	<130	<390	<130	<1500	<3900	<3900	<1500	<1500	**4200**
SL053 0-3"	<18	**16**	**130**	<6.5	<77	<190	<190	<77	<77	<39
SL053 0-3" DL	<36	**13** J	**110**	<13	<150	<390	<390	<150	<150	<77
SL053 4-6	<8 3	<3	<9	<3	<36	<90	<90	<36	<36	<18
SL056 0-3" (d)	<8 0	<2 9	<8 7	<2 9	<35	<87	<87	<35	<17	<17
SL057 0-3" (d)	**14**	**19**	**14**	<3 3	<39	<96	<96	<39	<19	<19

Notes:
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APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aroclor-1260	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
EPA Prelim. Remediation Goal(a)	*83 ug/kg*	*40 ug/kg*	---	*13500 ug/kg*	---	*81000 ug/kg*	---	---	---	---
EPA August 1990, PCBs(b)	*10000 ug/kg*	---	---	---	---	---	---	---	---	---
SL032 2-4	<1800	<150	<460	<310	<920	<460	<920	<230	<460	<1800
SL033 0-3"	**2900**	<31	<94	<64	<190	<94	<190	<47	<94	<380
SL034 9-11	<800	<65	<200	<140	<400	<200	<400	<100	<200	<800
SL035 9-11	<77	**33**	<19	<13	<39	**14** J	<39	<9 6	<19	<77
SL039 10-12	<4000	<320	<990	<670	<2000	**1200**	<2000	<490	<990	<4000
SL040 7 5-8.5 DL (c)	**2600** J	<45	<140	<90	<270	<140	<270	<68	<140	<540
SL040 9-11	<2100	<170	<530	<360	<1100	**810**	<1100	<270	<530	<2100
SL041 0-3"	**960**	<32	<99	<67	<200	<99	<200	<49	<99	<400
SL041 3-4	<790	<64	<200	<130	<400	<200	<400	<99	<200	<790
SL042 0-3"	**730**	<5 8	<18	<12	<36	<18	<36	<9	<18	<72
SL043 5-7	<1800	<150	<450	<310	<910	**650**	<910	<230	<450	<1800
SL044 7-9	<20000	<1600	<4900	<3300	<9900	<4900	<9900	<2500	<4900	<20000
SL045 0-3"	**380**	<6 2	<19	<13	<38	<19	<38	<9 5	<19	<76
SL047 3-5	**4000**	<160	<490	<330	<980	**760**	<980	<240	<490	<2000
SL048 0-3"	**6200** J	<690	<2100	<1400	<4300	<2100	<4300	<1100	<2100	<8500
SL048 1-2	**2400** J	<320	<1000	<680	<2000	<1000	<2000	<500	<1000	<4000
SL050 0-3"	<39	<3 1	<9.6	<6 5	<19	<9 6	<19	<4 8	<9 6	<39
SL050 2-4	<21	<1 7	<5 2	<3 5	<10	<5 2	<10	<2 6	<5 2	<21
SL051 0-3"	**320**	<3 5	<11	<7 2	<21	<11	<21	<5 3	<11	<43
SL052 0-3"	<80	**9**	<20	<14	<40	<20	<40	<10	<20	<80
SL052 1-2	<770	<63	<190	<130	<390	<190	<390	<96	<190	<770
SL053 0-3"	<39	<3 1	<9 6	<6 5	<19	<9 6	<19	<4 8	<9 6	<39
SL053 0-3" DL	<77	<6 3	<19	<13	<39	<19	<39	<9 6	<19	<77
SL053 4-6	<18	<1 5	<4 5	<3	<9	<4 5	<9	<2 2	<4 5	<18
SL056 0-3" (d)	<17	<1 4	<4 3	<2 9	<8 7	<4 3	<8 7	<2 2	<4 3	<17
SL057 0-3" (d)	**150**	**8.2**	<4.8	<3 3	<9 6	<4 8	<9 6	<2 4	<4 8	<19

Notes:
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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
EPA Prelim. Remediation Goal(a)	---	---	---	---	---	---	---
EPA August 1990, PCBs(b)	---	---	---	---	---	---	---
SL032 2-4	<7600	<230	<380	<460	<460	<310	<380
SL033 0-3"	<1600	<47	<78	<94	<94	<64	<78
SL034 9-11	<3300	<100	<160	<200	<200	<140	<160
SL035 9-11	<320	<9 6	<16	<19	<19	<13	<16
SL039 10-12	<16000	<490	<820	<990	<990	<670	<820
SL040 7 5-8 5 DL (c)	<2300	<68	<110	<140	<140	<90	<110
SL040 9-11	<8800	<270	<440	<530	<530	<360	<440
SL041 0-3"	<1600	<49	<82	<99	<99	<67	<82
SL041 3-4	<3300	<99	<160	<200	<200	<130	<160
SL042 0-3"	<300	<9	<15	<18	<18	<12	<15
SL043 5-7	<7500	<230	<380	<450	<450	<310	<380
SL044 7-9	<81000	<2500	<4100	<4900	<4900	<3300	<4100
SL045 0-3"	<310	<9 5	<16	<19	<19	<13	<16
SL047 3-5	<8000	<240	<400	<490	<490	<330	<400
SL048 0-3"	<35000	<1100	<1800	<2100	<2100	<1400	<1800
SL048 1-2	<16000	<500	<820	<1000	<1000	<680	<820
SL050 0-3"	<160	<4 8	<8	<9 6	<9 6	<6 5	<8
SL050 2-4	<86	<2 6	<4 3	<5 2	<5 2	<3 5	<4 3
SL051 0-3"	<180	<5 3	<8 8	<11	<11	<7 2	<8 8
SL052 0-3"	<330	<10	<16	<20	<20	<14	<16
SL052 1-2	<3200	<96	<160	<190	<190	<130	<160
SL053 0-3"	<160	<4 8	<8	<9 6	<9 6	<6 5	<8
SL053 0-3" DL	<320	<9 6	<16	<19	<19	<13	<16
SL053 4-6	<74	<2 2	<3 7	<4 5	<4 5	<3	<3 7
SL056 0-3" (d)	<73	<2 2	<3 6	<4 3	<4 3	<2 9	<3 6
SL057 0-3" (d)	<81	<2 4	**4.8**	<4 8	<4 8	<3 3	**4**

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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254
EPA Prelim. Remediation Goal(a)	*2700 ug/kg*	*1900 ug/kg*	*1900 ug/kg*	*38 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*
EPA August 1990, PCBs(b)	---	---	---	---	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*
SL058 0-3" (d)	<8 1	**2.4** J	<8 8	<3	<35	<88	<88	<35	<18	<18
SL059 0-3" (d)	<8 3	**22**	**13**	<3	<36	<90	<90	<36	<18	<18
SL060 0-3" (d)	<8	**1.6** J	<8 6	<2 9	<34	<86	<86	<34	<17	<17
SL061 0-3" (d)	<8 6	**45**	**20**	<3 1	<37	<93	<93	<37	<19	<19
SL061DL	<43	**31**	<47	<16	<190	<470	<470	<190	<93	<93
SL062 0-3" (d)	<7.9	**15**	**5.7** J	<2 9	<34	<85	<85	<34	<17	<17
SL063 0-3"	<16	**7**	<17	<5 9	<70	<170	<170	<70	<70	<35
SL064 0-3"	<170	<61	<180	<61	<720	<1800	<1800	<720	<720	<360
SL065 0-3"	<17	<6 1	**29**	<6 1	<73	<180	<180	<73	<73	<36
SL066 0-3"	<830	<300	<900	<300	<3600	<9000	<9000	<3600	<3600	<1800
SL066 2-4	<80	<29	<87	<29	<350	<870	<870	<350	<350	<170
SL067 0-3"	<9200	<3400	**20000**	<3400	<40000	<100000	<100000	<40000	<40000	<20000
SL068 0-3" DL (c)	<770	<280	<830	<280	<3300 UJ	<8300 UJ	<8300 UJ	<3300 UJ	<1700 UJ	<1700 UJ
SL068 0-3"	<80	<29	<87	<29	<350	<870	<870	<350	<350	<170
SL069 0-3"	<1800	<680	**4800**	<680	<8000	<20000	<20000	<8000	<8000	<4000
SL069 1-2	<19	<6 8	<20	<6 8	<81	<200	<200	<81	<81	<41
SL070 0-3" DL (c)	<75	<28	<82	<28	<330 UJ	<820 UJ	<820 UJ	<330 UJ	<160 UJ	<160 UJ
SL070 0-3"	<16	<5 9	<17	<5 9	<70	<170	<170	<70	<70	<35
SL071 0-3"	<20	**10**	**13** J	<7 2	<85	<210	<210	<85	<85	**51**
SL072 0-3"	<35	<13	<38	<13	<150	<380	<380	<150	<150	<75
SL072 5-7	<17	**7.9**	<19	**2.3** J	<75	<190	<190	<75	<75	<38
SL073 0-3" DL	<78	<28	<84	<28	<340 UJ	<840 UJ	<840 UJ	<340 UJ	<170 UJ	<170 UJ
SL073 0-3"	<33	<12	<35	<12	<140	<350	<350	<140	<140	<70
SL073 4-6	<8 8	<3 2	<9 5	<3 2	<38	<95	<95	<38	<38	<19
SL074 0-3" DL	<39	<14	<43	<14	<170 UJ	<430 UJ	<430 UJ	<170 UJ	<85 UJ	<85 UJ
SL074 0-3"	<17	<6 1	<18	<6 1	<72	<180	<180	<72	<72	<36

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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aroclor-1260	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
EPA Prelim. Remediation Goal(a)	*83 ug/kg*	*40 ug/kg*	---	*13500 ug/kg*	---	*81000 ug/kg*	---	---	---	---
EPA August 1990, PCBs(b)	*10000 ug/kg*	---	---	---	---	---	---	---	---	---
SL058 0-3" (d)	<18	<1 4	<4 4	<3	<8 8	<4 4	<8 8	<2 2	<4 4	<18
SL059 0-3" (d)	**58**	**1.4** J	<4 5	<3	<9	<4 5	<9	<2 2	<4 5	<18
SL060 0-3" (d)	<17	<1 4	<4 3	<2 9	<8 6	<4 3	<8 6	<2 2	<4 3	<17
SL061 0-3" (d)	**60**	**2.7**	<4 7	<3 1	<9 3	<4 7	<9 3	<2 3	<4 7	<19
SL061DL	<93	<7 6	<23	<16	<47	<23	<47	<12	<23	<93
SL062 0-3" (d)	**190**	<1 4	<4 3	<2 9	<8 5	<4 3	<8 5	<2 1	<4 3	<17
SL063 0-3"	**320**	<2 8	<8 7	<5 9	<17	<8 7	<17	<4 3	<8 7	<35
SL064 0-3"	**2900**	<29	<90	<61	<180	<90	<180	<45	<90	<360
SL065 0-3"	**360**	<3	<9 1	<6 1	<18	<9 1	<18	<4 5	<9.1	<36
SL066 0-3"	**7100**	<150	<450	<300	<900	<450	<900	<220	<450	<1800
SL066 2-4	**600**	<14	<43	<29	<87	<43	<87	<22	<43	<170
SL067 0-3"	<20000	<1600	<5000	<3400	<10000	<5000	<10000	<2500	<5000	<20000
SL068 0-3" DL (c)	**4500** J	<140	<420	<280	<830	<420	<830	<210	<420	<1700
SL068 0-3"	**2000**	<14	<43	<29	<87	<43	<87	<22	<43	<170
SL069 0-3"	<4000	<320	<1000	<680	<2000	<1000	<2000	<500	<1000	<4000
SL069 1-2	<41	<3 3	<10	<6 8	<20	<10	<20	<5 1	<10	<41
SL070 0-3" DL (c)	**510** J	<13	<41	<28	<82	<41	<82	<20	<41	<160
SL070 0-3"	<35	<2 8	<8 7	<5 9	<17	<8 7	<17	<4 3	<8 7	<35
SL071 0-3"	<43	<3 5	<11	<7 2	<21	<11	<21	<5 3	<11	<43
SL072 0-3"	<75	<6 1	<19	<13	<38	<19	<38	<9 4	<19	<75
SL072 5-7	<38	<3 1	<9 4	<6 4	<19	<9 4	<19	<3 9	<9 4	<38
SL073 0-3" DL	**710** J	<14	<42	<28	<84	<42	<84	<21	<42	<170
SL073 0-3"	**310**	<5 7	<18	<12	<35	<18	<35	<8 8	<18	<70
SL073 4-6	<19	<1 5	<4 8	<3 2	<9 5	<4 8	<9 5	<2 4	<4 8	<19
SL074 0-3" DL	**330** J	<6 9	<21	<14	<43	<21	<43	<11	<21	<85
SL074 0-3"	**130**	<2 9	<9	<6 1	<18	<9	<18	<4 5	<9	<36

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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
EPA Prelim. Remediation Goal(a)	---	---	---	---	---	---	---
EPA August 1990, PCBs(b)	---	---	---	---	---	---	---
SL058 0-3" (d)	<74	<2 2	<3 6	<4 4	<4 4	<3	<3 6
SL059 0-3" (d)	<75	<2 2	**9.6**	<4 5	<4 5	<3	**7.8**
SL060 0-3" (d)	<72	<2 2	<3 5	<4 3	<4 3	<2 9	<3 5
SL061 0-3" (d)	<78	<2 3	**13**	<4 7	<4 7	<3 1	**4.2**
SL061DL	<390	<12	<19	<23	<23	<16	<19
SL062 0-3" (d)	<71	<2 1	<3 5	<4 3	<4 3	<2 9	<3 5
SL063 0-3"	<140	<4 3	<7 2	<8 7	<8 7	<5 9	<7 2
SL064 0-3"	<1500	<45	<74	<90	<90	<61	<74
SL065 0-3"	<150	<4 5	<7 5	<9 1	<9 1	<6 1	<7.5
SL066 0-3"	<7400	<220	<370	<450	<450	<300	<370
SL066 2-4	<720	<22	<36	<43	<43	<29	<36
SL067 0-3"	<82000	<2500	<4100	<5000	<5000	<3400	<4100
SL068 0-3" DL (c)	<7000	<210	<340	<420	<420	<280	<340
SL068 0-3"	<720	<22	<36	<43	<43	<29	<36
SL069 0-3"	<16000	<500	<820	<1000	<1000	<680	<820
SL069 1-2	<170	<5 1	<8 4	<10	<10	<6 8	<8 4
SL070 0-3" DL (c)	<680	<20	<34	<41	<41	<28	<34
SL070 0-3"	<140	<4 3	<7 2	<8 7	<8 7	<5 9	<7 2
SL071 0-3"	<180	<5 3	<8 8	<11	<11	<7 2	<8 8
SL072 0-3"	<310	<9 4	**6.7** J	<19	<19	<13	<16
SL072 5-7	<160	<4 7	<7 8	<9 4	<9 4	<6 4	<7 8
SL073 0-3" DL	<710	<21	<35	<42	<42	<28	<35
SL073 0-3"	<290	<8 8	<15	<18	<18	<12	<15
SL073 4-6	<79	<2 4	<3 9	<4 8	<4 8	<3 2	<3 9
SL074 0-3" DL	<360	<11	<18	<21	<21	<14	<18
SL074 0-3"	<150	<4 5	<7 4	<9	<9	<6 1	<7 4

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound
(a) U.S Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident
(b) Environmental Protection Agency (EPA), "Guidance on Remedial Actions for Superfund Sites with PCB Contamination," August 1990.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected The estimated limit follows the '<' sign.
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APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254
EPA Prelim. Remediation Goal(a)	*2700 ug/kg*	*1900 ug/kg*	*1900 ug/kg*	*38 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*
EPA August 1990, PCBs(b)	---	---	---	---	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*
SL074 5-6	<17	<6 1	<18	<6 1	<73	<180	<180	<73	<73	<36
SL075 0-3"	**180**	**5.9** J	<36	<12	<140	<360	<360	<140	<140	<72
SL076 0-3"	<19	**8.1**	**54**	<7 1	<84	<210	<210	<84	<84	**130**
SL077 0-3"	<17	<6 1	<18	<6 1	<73	<180	<180	<73	<73	<36
SL077 4-5	<9	<3 3	<9 8	<3 3	<39	<98	<98	<39	<39	<20
SL078 0-3"	**35**	**9.4** J	**33** J	<12	<140	<360	<360	<140	<140	<72
SL079 0-3"	<17	<6 1	<18	<6 1	<73	<180	<180	<73	<73	<36
SL079 4-6	<8	<2 9	<8 6	<2 9	<34	<86	<86	<34	<34	<17
SL080 0-3"	<16	<6	<18	<6	<71	<180	<180	<71	<71	<36
SL081 0-3"	<17	<6 2	<18	<6 2	<74	<180	<180	<74	<74	<37
SL081 3-5	<18	<6 4	<19	<6 4	<76	<190	<190	<76	<76	<38
SL082 0-3"	<840	<310	<910	<310	<3600	<9100	<9100	<3600	<3600	<1800
SL082 3-5	<86	<31	<93	<31	<370	<930	<930	<370	<370	<190
SL083 0-3"	<310	<110	<340	<110	<1300	<3400	<3400	<1300	<1300	<670
SL083 5-7	<180	<64	<190	<64	<760	<1900	<1900	<760	<760	<380
SL084 0-3"	**8** J	**35**	**25**	<7 3	<86	<220	<220	<86	<86	**48**
SL085 0-3"	<19	**7.1**	<20	<6 8	<81	<200	<200	<81	<81	<41
SL086 0-3"	**91** J	<62	<180	<62	<740	<1800	<1800	<740	<740	<370
SL087 0-3"	<27	**10** J	<30	<10	<120	<300	<300	<120	<120	<59
SL088 0-3"	<26	<9 3	<28	<9 3	<110	<280	<280	<110	<110	<55
SL089 0-3"	<19	<6 8	<20	<6 8	<81	<200	<200	<81	<81	**70**
SL090 0-3"	**7.6** J	**14**	**9.7** J	<7 6	<90	<230	<230	<90	<90	**66**
SL091 0-3"	<18	<6 7	<20	<6 7	<79	<200	<200	<79	<79	**130**
SL092 0-3"	<100	<37	**210**	<37	<440	<1100	<1100	<440	<440	<220
SL093 0-3"	<19	<7 1	<21	<7 1	<84	<210	<210	<84	<84	<42
SL094 0-3"	<17	<6 1	<18	<6 1	<72	<180	<180	<72	<72	<36

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL
2 The shaded values represent positive detections of the particular compound
(a) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991 Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident
(b) Environmental Protection Agency (EPA), "Guidance on Remedial Actions for Superfund Sites with PCB Contamination," August 1990.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992
"UJ" Signifies the quantitation limit was estimated and the compound was not detected The estimated limit follows the '<' sign.
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APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aroclor-1260	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
EPA Prelim. Remediation Goal(a)	*83 ug/kg*	*40 ug/kg*	---	*13500 ug/kg*	---	*81000 ug/kg*	---	---	---	---
EPA August 1990, PCBs(b)	*10000 ug/kg*	---	---	---	---	---	---	---	---	---
SL074 5-6	<36	<3	<9 1	<6 1	<18	<9 1	<18	<4 5	<9 1	<36
SL075 0-3"	**170**	<5 8	<18	<12	<36	<18	<36	<9	<18	<72
SL076 0-3"	<42	<3 4	<11	<7 1	<21	<11	<21	<5 3	<11	<42
SL077 0-3"	<36	<3	<9 1	<6 1	<18	<9 1	<18	<4 5	<9 1	<36
SL077 4-5	<20	<1 6	<4 9	<3 3	<9 8	<4 9	<9 8	<2 4	<4 9	<20
SL078 0-3"	<72	<5 8	<18	<12	<36	<18	<36	<9	<18	<72
SL079 0-3"	**130**	<3	<9 1	<6 1	<18	<9 1	<18	<4 5	<9 1	<36
SL079 4-6	<17	<1 4	<4 3	<2 9	<8 6	<4 3	<8 6	<2 2	<4 3	<17
SL080 0-3"	<36	**2.2 J**	<8 9	<6	<18	<8 9	<18	<4 4	<8 9	<36
SL081 0-3"	<37	<3	<9 2	<6 2	<18	<9 2	<18	<4 6	<9 2	<37
SL081 3-5	<38	<3 1	<9 5	<6 4	<19	<9 5	<19	<4 8	<9 5	<38
SL082 0-3"	**50000**	<150	<450	<310	<910	<450	<910	<230	<450	<1800
SL082 3-5	**2100**	<15	<47	<31	<93	<47	<93	<23	<47	<190
SL083 0-3"	**12000**	<55	<170	<110	<340	<170	<340	<84	<170	<670
SL083 5-7	**3700**	<31	<95	<64	<190	<95	<190	<48	<95	<380
SL084 0-3"	<43	<3 5	<11	<7 3	<22	<11	<22	<5 4	<11	<43
SL085 0-3"	<41	<3 3	<10	<6 8	<20	<10	<20	<5 1	<10	<41
SL086 0-3"	<370	<30	<92	<62	<180	<92	<180	**55**	**180**	<370
SL087 0-3"	<59	<4 8	<15	<10	<30	<15	<30	<7 4	<15	<59
SL088 0-3"	**510**	<4 5	<14	<9 3	<28	<14	<28	<6 9	<14	<55
SL089 0-3"	**170**	<3 3	<10	<6 8	<20	<10	<20	<5 1	<10	<41
SL090 0-3"	<45	<3 7	<11	<7 6	<23	<11	<23	<5 6	<11	<45
SL091 0-3"	<40	<3 2	<9 9	<6 7	<20	<9 9	<20	<4 9	<9 9	<40
SL092 0-3"	**770**	<18	<56	<37	<110	<56	<110	<28	<56	<220
SL093 0-3"	**130**	<3 4	<11	<7.1	<21	<11	<21	<5 3	<11	<42
SL094 0-3"	<36	<2 9	<9	<6 1	<18	<9	<18	<4 5	<9	<36

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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(a) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991 Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
EPA Prelim. Remediation Goal(a)	---	---	---	---	---	---	---
EPA August 1990, PCBs(b)	---	---	---	---	---	---	---
SL074 5-6	<150	<45	<75	<91	<91	<61	<75
SL075 0-3"	<300	<9	<15	<18	<18	<12	<15
SL076 0-3"	<170	<53	<87	<11	<11	<71	<87
SL077 0-3"	<150	<45	<75	<91	<91	<61	<75
SL077 4-5	<80	<24	<4	<49	<49	<33	<4
SL078 0-3"	<300	<9	<15	<18	<18	<12	<15
SL079 0-3"	<150	<45	<75	<91	<91	<61	<75
SL079 4-6	<71	<22	<35	<43	<43	<29	<35
SL080 0-3"	<150	<44	<73	<89	<89	<6	<73
SL081 0-3"	<150	<46	<76	<92	<92	<62	<76
SL081 3-5	<160	<48	<79	<95	<95	<64	<79
SL082 0-3"	<7500	<230	<380	<450	<450	<310	<380
SL082 3-5	<770	<23	<38	<47	<47	<31	<38
SL083 0-3"	<2800	<84	<140	<170	<170	<110	<140
SL083 5-7	<1600	<48	<79	<95	<95	<64	<79
SL084 0-3"	<180	**2.9** J	<89	<11	<11	<73	<89
SL085 0-3"	<170	<51	<84	<10	<10	<68	<84
SL086 0-3"	<1500	<46	**310**	<92	<92	<62	**310**
SL087 0-3"	<240	<74	<12	<15	<15	<10	<12
SL088 0-3"	<230	<69	<11	<14	<14	<93	<11
SL089 0-3"	<170	<51	<84	<10	<10	<68	<84
SL090 0-3"	<190	<56	<93	<11	<11	<76	<93
SL091 0-3"	<160	<49	<82	<99	<99	<67	<82
SL092 0-3"	<920	<28	<46	<56	<56	<37	<46
SL093 0-3"	<170	<53	<87	<11	<11	<71	<87
SL094 0-3"	<150	<45	<74	<9	<9	<61	<74

Notes.
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APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aroclor-1260	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
EPA Prelim. Remediation Goal(a)	*83 ug/kg*	*40 ug/kg*	---	*13500 ug/kg*	---	*81000 ug/kg*	---	---	---	---
EPA August 1990, PCBs(b)	*10000 ug/kg*	---	---	---	---	---	---	---	---	---
SL095 0-3"	**480**	<15	<45	<30	<90	<45	<90	<22	<45	<180
SL096 0-3"	<39	<31	<96	<65	<19	<9.6	<19	<48	<96	<39
SL096 2-4	<39	<31	<96	<65	<19	<96	<19	<48	<96	<39
SL097 1-3A	**1000**	<31	<95	<64	<190	<95	<190	<48	<95	<380
SL097 7-9	<190	<15	<48	<32	<95	<48	<95	<24	<48	<190
SL098 7-9	<740	<60	<190	<130	<370	<190	<370	<93	<190	<740
SL099 5-7	**390** J	<32	<98	<66	<200	<98	<200	<49	<98	<390
SL100 4-6	**850**	<30	<92	<62	<180	<92	<180	<46	<92	<370
SL101 0-3" DL (c)	**24000** J	<680	<2100	<1400	<4200	<2100	<4200	<1000	<2100	<8300
SL101 0-3"	**27000**	<150	<450	<300	<900	<450	<900	<220	<450	<1800
SL102 0-3" DL (c)	**260000** J	<7000	<22000	<15000	<43000	<22000	<43000	<11000	<22000	<86000
SL102 0-3"	**5400**	<57	<170	<120	<350	<170	<350	<87	<170	<700
SL103 0-3" DL (c)	**3300** J	<68	<210	<140	<420	<210	<420	<110	<210	<840
SL103 0-3"	**2800**	<28	<87	<59	<170	<87	<170	<43	<87	<350
SL104 0-3" DL (c)	**2500** J	<27	<84	<57	<170	<84	<340	<42	<84	<340
SL104 0-3"	**620**	<57	<18	<12	<35	<18	<70	<88	<18	<70
SL105 0-3" DL (c)	**1700** J	<27	<83	<56	<170	<83	<330	<42	<83	<330
SL105 0-3"	**860**	<63	<20	<13	<39	<20	<78	<98	<20	<78
SL106 0-3" DL (c)	**800** J	<13	<41	<28	<82	<41	<82	<21	<41	<160
SL106 0-3"	**150**	<29	<89	<6	<18	<89	<18	<44	<89	<36
SL107 0-3" DL (c)	**53** J	<13	<41	<28	<82	<41	<82	<21	<41	<16
SL107 0-3"	**72**	<3	<93	<63	<19	<93	<19	<47	<93	<37
SL108 0-3"	<40	<32	<99	<67	<20	<99	<20	<49	<99	<40
SL109 0-3"	<41	<33	<10	<68	<20	<10	<20	<51	<10	<41
SL110 0-3"	<39	<32	<98	<66	<20	<98	<20	<49	<98	<39
SL111 0-3"	**340**	<31	<95	<64	<19	<95	<19	<48	<95	<38

Notes.
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APPENDIX C-3
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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254
EPA Prelim. Remediation Goal(a)	*2700 ug/kg*	*1900 ug/kg*	*1900 ug/kg*	*38 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*
EPA August 1990, PCBs(b)	---	---	---	---	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*
SL095 0-3"	<83	<30	<90	<30	<360	<900	<900	<360	<360	**450**
SL096 0-3"	<18	**5.4** J	<19	<6.5	<77	<190	<190	<77	<77	<39
SL096 2-4	<18	<6.5	<19	<6.5	<77	<190	<190	<77	<77	<39
SL097 1-3A	<180	<64	<190	<64	<760	<1900	<1900	<760	**4100**	<380
SL097 7-9	<88	<32	<95	<32	<380	<950	<950	<380	<380	**820**
SL098 7-9	**350**	<130	<370	<130	<1500	<3700	<3700	<1500	**4900**	<740
SL099 5-7	<180	<66	<200	<66	<780	<2000	<2000	<780	<780	**2200**
SL100 4-6	<170	<62	<180	<62	<740	<1800	<1800	<740	**5700**	<370
SL101 0-3" DL (c)	<3900	<1400	<4200	<1400	<17000 UJ	<42000 UJ	<42000 UJ	<17000 UJ	<8300 UJ	<8300 UJ
SL101 0-3"	<830	<300	<900	<300	<3600	<9000	<9000	<3600	<3600	<1800
SL102 0-3" DL (c)	<40000	<15000	<43000	<15000	<170000 UJ	<430000 UJ	<430000 UJ	<170000 UJ	<86000 UJ	<86000 UJ
SL102 0-3"	<320	<120	<350	<120	<1400	<3500	<3500	<1400	<1400	<700
SL103 0-3" DL (c)	<390	<140	<420	<140	<1700 UJ	<4200 UJ	<4200 UJ	<1700 UJ	<840 UJ	<840 UJ
SL103 0-3"	<160	<59	<170	<59	<700	<1700	<1700	<700	<700	<350
SL104 0-3" DL (c)	<160	<57	<170	<57	<670 UJ	<1700 UJ	<1700 UJ	<670 UJ	<340 UJ	<340 UJ
SL104 0-3"	<33	<12	<35	<12	<140	<350	<350	<140	<140	<70
SL105 0-3" DL (c)	<150	<56	<170	<56	<670 UJ	<1700 UJ	<1700 UJ	<670 UJ	<330 UJ	<330 UJ
SL105 0-3"	<36	**7.5** J	<39	<13	<160	<390	<390	<160	<160	<78
SL106 0-3" DL (c)	<76	<28	<82	<28	<330 UJ	<820 UJ	<820 UJ	<330 UJ	<160 UJ	<160 UJ
SL106 0-3"	<16	<6	<18	<6	<71	<180	<180	<71	<71	<36
SL107 0-3" DL (c)	<7.6	<2.8	<8.2	<2.8	<33 UJ	<82 UJ	<82 UJ	<33 UJ	<16 UJ	<16 UJ
SL107 0-3"	<17	<6.3	<19	<6.3	<74	<190	<190	<74	<74	<37
SL108 0-3"	<18	**8.2**	<20	<6.7	<79	<200	<200	<79	<79	<40
SL109 0-3"	<19	<6.8	<20	<6.8	<81	<200	<200	<81	<81	<41
SL110 0-3"	<18	**3.3** J	<20	<6.6	<78	<200	<200	<78	<78	<39
SL111 0-3"	<18	**11**	<19	<6.4	<76	<190	<190	<76	<76	<38

Notes:
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(b) Environmental Protection Agency (EPA), "Guidance on Remedial Actions for Superfund Sites with PCB Contamination," August 1990
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APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
EPA Prelim. Remediation Goal(a)	---	---	---	---	---	---	---
EPA August 1990, PCBs(b)	---	---	---	---	---	---	---
SL095 0-3"	<37	<22	<37	<45	<45	<30	<37
SL096 0-3"	<8	<48	<8	<96	<96	<65	<8
SL096 2-4	<160	<48	<8	<96	<96	<65	<8
SL097 1-3A	<1600	<48	<79	<95	<95	<64	<79
SL097 7-9	<790	<24	<39	<48	<48	<32	<39
SL098 7-9	<3100	<93	<150	<190	<190	<130	<150
SL099 5-7	<1600	<49	<81	<98	<98	<66	<81
SL100 4-6	<1500	<46	<76	<92	<92	<62	<76
SL101 0-3" DL (c)	<35000	<1000	<1700	<2100	<2100	<1400	<1700
SL101 0-3"	<7400	<220	<370	<450	<450	<300	<370
SL102 0-3" DL (c)	<360000	<11000	<18000	<22000	<22000	<15000	<18000
SL102 0-3"	<2900	<87	<140	<170	<170	<120	<140
SL103 0-3" DL (c)	<3500	<110	<170	<210	<210	<140	<170
SL103 0-3"	<1400	<43	<72	<87	<87	<59	<72
SL104 0-3" DL (c)	<1400	<42	<69	<84	<84	<57	<69
SL104 0-3"	<290	<88	<15	<18	<18	<12	<15
SL105 0-3" DL (c)	<1400	<42	<69	<83	<83	<56	<69
SL105 0-3"	<320	<98	<16	<20	<20	<13	<16
SL106 0-3" DL (c)	<690	<21	<34	<41	<41	<28	<34
SL106 0-3"	<150	<44	<73	<89	<89	<6	<73
SL107 0-3" DL (c)	<69	<21	<34	<41	<41	<28	<34
SL107 0-3"	<150	<47	<77	<93	<93	<63	<77
SL108 0-3"	<160	<49	<82	<99	<99	<67	<82
SL109 0-3"	<170	<51	<84	<10	<10	<68	<84
SL110 0-3"	<160	<49	<81	<98	<98	<66	<81
SL111 0-3"	<160	<48	<79	<95	<95	<64	<79

Notes.
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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aroclor-1260	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
EPA Prelim. Remediation Goal(a)	*83 ug/kg*	*40 ug/kg*	---	*13500 ug/kg*	---	*81000 ug/kg*	---	---	---	---
EPA August 1990, PCBs(b)	*10000 ug/kg*	---	---	---	---	---	---	---	---	---
SL112 0-3"	**99**	<2.9	<9	<6.1	<18	<9	<18	<4.5	<9	<36
SL113 0-3"	**400**	<5.6	<17	<12	<34	<17	<34	<8.6	<17	<69
SL114 0-3"	**78**	<2.9	<8.9	<6	<18	<8.9	<18	<4.4	<8.9	<36
SL115 0-3"	**230**	<2.8	<8.7	<5.9	<17	<8.7	<17	<4.3	<8.7	<35
SL116 0-3"	**180**	<6	<19	<13	<37	<19	<37	<9.3	<19	<74
SL117 0-3"	**190**	<2.8	<8.7	<5.9	<17	<8.7	<17	<4.3	<8.7	<35
SL118 0-3"	<86	<7	<22	<15	<43	<22	<43	<11	<22	<86
SL119 0-3"	**180**	<2.9	<9	<6.1	<18	<9	<18	<4.5	<9	<36
SL120 0-3"	<3600	<290	<900	<610	<1800	<900	<1800	<450	<900	<3600
SL121 0-3"	<40	<3.2	<9.9	<6.7	<20	<9.9	<20	<4.9	<9.9	<40
SL122 0-3"	**220**	<3.4	<11	<7.1	<21	<11	<21	<5.3	<11	<42
SL123 0-3"	**150**	<3.2	<9.8	<6.6	<20	<9.8	<20	<4.9	<9.8	<39
SL124 0-3"	**86**	<2.9	<8.8	<5.9	<18	<8.8	<18	<4.4	<8.8	<35
SL125 0-3"	**180**	<3.1	<9.4	<6.4	<19	<9.4	<19	<4.7	<9.4	<38
SL126 0-3"	**53**	<2.9	<8.8	<5.9	<18	<8.8	<18	<4.4	<8.8	<35
SL127 0-3"	**170**	<3	<9.1	<6.1	<18	<9.1	<18	<4.5	<9.1	<36
SL27001 0-3"	**800**	<57	<170	<120	<350	<170	<350	<87	<170	<700
SL27001 2-4	**170**	<7.1	<22	<15	<43	<22	<43	<11	<22	<87
SL27002 0-3"	<36	<2.9	<8.9	<6	<18	<8.9	<18	<4.4	<8.9	<36
SL27002 2-4	**110**	<7	<22	<15	<43	<22	<43	<11	<22	<86
SL27003 0-3"	**5900** J	<590	<1800	<1200	<3600	<1800	<3600	<910	<1800	<7300
SL27003 2-4	<17	<1.4	<4.3	<2.9	<8.7	<4.3	<8.7	<2.2	<4.3	<17
SL27004 0-3"	**2000**	<140	<430	<290	<870	<430	<870	<220	<430	<1700
SL27004 2-4	<19	<1.5	<4.7	<3.1	<9.3	<4.7	<9.3	<2.3	<4.7	<19
SL27005 0-3"	**3300** J	<300	<910	<610	<1800	<910	<1800	<450	<910	<3600
SL27005 2-4	**360**	<15	<47	<31	<93	<47	<93	<23	<47	<190

Notes:
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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254
EPA Prelim. Remediation Goal(a)	*2700 ug/kg*	*1900 ug/kg*	*1900 ug/kg*	*38 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*
EPA August 1990, PCBs(b)	---	---	---	---	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*
SL112 0-3"	<17	<6 1	<18	<6 1	<72	<180	<180	<72	<72	**36**
SL113 0-3"	<32	**34**	**52**	<12	<140	<340	<340	<140	<140	<69
SL114 0-3"	<16	<6	<18	<6	<71	<180	<180	<71	<71	<36
SL115 0-3"	<16	**4.5** J	<17	<5 9	<70	<170	<170	<70	<70	<35
SL116 0-3"	**20** J	**15**	**17** J	**3.5** J	<150	<370	<370	<150	<150	<74
SL117 0-3"	<16	<5 9	<17	<5 9	<70	<170	<170	<70	<70	<35
SL118 0-3"	<40	<15	<43	<15	<170	<430	<430	<170	<170	<86
SL119 0-3"	<17	**11**	<18	<6 1	<72	<180	<180	<72	<72	<36
SL120 0-3"	<1700	<610	**8200**	<610	<7200	<18000	<18000	<7200	<7200	<3600
SL121 0-3"	<18	<6 7	<20	<6 7	<79	<200	<200	<79	<79	<40
SL122 0-3"	<19	<7 1	<21	<7 1	<84	<210	<210	<84	<84	<42
SL123 0-3"	<18	<6 6	<20	<6 6	<78	<200	<200	<78	<78	<39
SL124 0-3"	<16	<5 9	<18	<5 9	<70	<180	<180	<70	<70	<35
SL125 0-3"	<17	<6 4	<19	<6 4	<75	<190	<190	<75	<75	<38
SL126 0-3"	<16	<5 9	<18	<5 9	<70	<180	<180	<70	<70	<35
SL127 0-3"	<17	**7.1**	<18	<6 1	<73	<180	<180	<73	<73	<36
SL27001 0-3"	<320	<120	<350	<120	<1400	<3500	<3500	<1400	<1400	<700
SL27001 2-4	<40	<15	<43	<15	<170	<430	<430	<170	<170	<87
SL27002 0-3"	<16	<6	<18	<6	<71	<180	<180	<71	<71	<36
SL27002 2-4	<40	<15	<43	<15	<170	<430	<430	<170	<170	<86
SL27003 0-3"	<3400	<1200	<3600	<1200	<15000	<36000	<36000	<15000	<15000	<7300
SL27003 2-4	<8	<2 9	<8 7	<2 9	<35	<87	<87	<35	<35	<17
SL27004 0-3"	<800	<290	<870	<290	<3500	<8700	<8700	<3500	<3500	<1700
SL27004 2-4	<8 6	<3 1	<9 3	<3 1	<37	<93	<93	<37	<37	<19
SL27005 0-3"	<1700	<610	<1800	<610	<7300	<18000	<18000	<7300	<7300	<3600
SL27005 2-4	<86	<31	<93	<31	<370	<930	<930	<370	<370	<190

Notes:
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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
EPA Prelim. Remediation Goal(a)	---	---	---	---	---	---	---
EPA August 1990, PCBs(b)	---	---	---	---	---	---	---
SL112 0-3"	<150	<45	<74	<9	<9	<61	<7.4
SL113 0-3"	<280	<86	<14	<17	<17	<12	<14
SL114 0-3"	<150	<44	<73	<89	<89	<6	<73
SL115 0-3"	<140	<43	<72	<87	<87	<59	<72
SL116 0-3"	<310	<93	**15 J**	<19	<19	<13	**15 J**
SL117 0-3"	<140	<43	<72	<87	<87	<59	<72
SL118 0-3"	<360	<11	<18	<22	<22	<15	<18
SL119 0-3"	<150	<45	<74	<9	<9	<61	<74
SL120 0-3"	<15000	<450	<740	<900	<900	<610	<740
SL121 0-3"	<160	<49	<82	<99	<99	<67	<82
SL122 0-3"	<170	<53	<87	<11	<11	<71	<87
SL123 0-3"	<160	<49	<81	<98	<98	<66	<81
SL124 0-3"	<150	<44	<73	<88	<88	<59	<73
SL125 0-3"	<160	<47	<78	<94	<94	<64	<7.8
SL126 0-3"	<150	<44	<73	<88	<88	<59	<73
SL127 0-3"	<150	<45	<75	<91	<91	<61	<75
SL27001 0-3"	<2900	<87	<140	<170	<170	<120	<140
SL27001 2-4	<360	<11	<18	<22	<22	<15	<18
SL27002 0-3"	<150	<44	<73	<89	<8.9	<6	<73
SL27002 2-4	<350	<11	<18	<22	<22	<15	<18
SL27003 0-3"	<30000	<910	<1500	<1800	<1800	<1200	<1500
SL27003 2-4	<72	<22	<36	<43	<43	<29	<36
SL27004 0-3"	<7200	<220	<360	<430	<430	<290	<360
SL27004 2-4	<77	<2.3	<38	<47	<47	<31	<38
SL27005 0-3"	<15000	<450	<750	<910	<910	<610	<750
SL27005 2-4	<770	<23	<38	<47	<47	<31	<38

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PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aroclor-1260	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
EPA Prelim. Remediation Goal(a)	*83 ug/kg*	*40 ug/kg*	---	*13500 ug/kg*	---	*81000 ug/kg*	---	---	---	---
EPA August 1990, PCBs(b)	*10000 ug/kg*	---	---	---	---	---	---	---	---	---
SL27006 0-3"	**140**	<2 9	<8 8	<5 9	<18	<8 8	<18	<4 4	<8 8	<35
SL27006 2-4	<36	<2 9	<9	<6 1	<18	<9	<18	<4 5	<9	<36
SL27007 0-3"	**1200**	<57	<180	<120	<350	<180	<350	<88	<180	<700
SL27007 2-4	**110**	<3	<9 2	<6 2	<18	<9 2	<18	<4 6	<9 2	<37
SL27008 0-3"	**760**	<56	<170	<120	<340	<170	<340	<86	<170	<690
SL27008 2-4	**240**	<14	<44	<30	<89	<44	<89	<22	<44	<180
SL27009 0-3"	**1500** J	<140	<440	<300	<880	<440	<880	<220	<440	<1800
SL27009 2-4	**1500** J	<140	<430	<290	<870	<430	<870	<220	<430	<1700
SL27010 0-3"	**4700**	<280	<870	<590	<1700	<870	<1700	<430	<870	<3500
SL27010 2-4	**75**	<1 4	<4 4	<3	<8 9	<4 4	<8 9	<2 2	<4 4	<18
SL27011 0-3"	**1100**	<14	<44	<30	<88	<44	<88	<22	<44	<180
SL27011 2-4	<18	<1 4	<4 4	<3	<8 9	<4 4	<8 9	<2 2	<4 4	<18

Notes:
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NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254
EPA Prelim. Remediation Goal(a)	*2700 ug/kg*	*1900 ug/kg*	*1900 ug/kg*	*38 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*
EPA August 1990, PCBs(b)	---	---	---	---	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*
SL27006 0-3"	<16	<5 9	<18	<5 9	<70	<180	<180	<70	<70	<35
SL27006 2-4	<17	<6 1	<18	<6 1	<72	<180	<180	<72	**140**	<36
SL27007 0-3"	<330	**39** J	<350	<120	<1400	<3500	<3500	<1400	<1400	<700
SL27007 2-4	<17	<6 2	**9.4** J	<6 2	<74	<180	<180	<74	<74	<37
SL27008 0-3"	<320	<120	<340	<120	<1400	<3400	<3400	<1400	<1400	<690
SL27008 2-4	<82	<30	<89	<30	<360	<890	<890	<360	<360	<180
SL27009 0-3"	<810	<300	<880	<300	<3500	<8800	<8800	<3500	<3500	<1800
SL27009 2-4	<800	<290	<870	<290	<3500	<8700	<8700	<3500	<3500	<1700
SL27010 0-3"	<1600	<590	<1700	<590	<7000	<17000	<17000	<7000	<7000	<3500
SL27010 2-4	<8 2	<3	<8 9	<3	<36	<89	<89	<36	<36	<18
SL27011 0-3"	<81	**130**	**130**	<30	<350	<880	<880	<350	<350	**1000**
SL27011 2-4	<8 2	<3	<8 9	<3	<36	<89	<89	<36	<36	<18

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
2 The shaded values represent positive detections of the particular compound.
(a) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(b) Environmental Protection Agency (EPA), "Guidance on Remedial Actions for Superfund Sites with PCB Contamination," August 1990.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
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APPENDIX C-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS EPA METHOD 8080 TARGET COMPOUND LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
EPA Prelim. Remediation Goal(a)	---	---	---	---	---	---	---
EPA August 1990, PCBs(b)	---	---	---	---	---	---	---
SL27006 0-3"	<150	<4 4	<7 3	<8 8	<8 8	<5 9	<7 3
SL27006 2-4	<150	<4 5	<7 4	<9	<9	<6 1	<7 4
SL27007 0-3"	<2900	<88	<150	<180	<180	<120	<150
SL27007 2-4	<150	<4 6	<7.6	<9 2	<9 2	<6 2	<7 6
SL27008 0-3"	<2800	<86	<140	<170	<170	<120	<140
SL27008 2-4	<730	<22	<37	<44	<44	<30	<37
SL27009 0-3"	<7300	<220	<360	<440	<440	<300	<360
SL27009 2-4	<7200	<220	<360	<430	<430	<290	<360
SL27010 0-3"	<14000	<430	<720	<870	<870	<590	<720
SL27010 2-4	<73	<2 2	<3 7	<4 4	<4 4	<3	<3 7
SL27011 0-3"	<730	<22	<36	<44	<44	<30	<36
SL27011 2-4	<73	<2 2	<3 7	<4 4	<4 4	<3	<3 7

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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Appendix C-4
Inorganic Compounds Analytical Summary

APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper
FDER Soil Action Level(a)	---	---	*55 mg/kg*	*2750 mg/kg*	---	*55 mg/kg*	---	*275 mg/kg*	---	---
EPA Prelim. Remediation Goal(b)	---	*108 mg/kg*	*81 mg/kg*	*13500 mg/kg*	*0.15 mg/kg*	*135 mg/kg*	---	*1350 mg/kg*	---	*9990 mg/kg*
SL011 2-4	1900	<3 5	3.1	13.5 J	<0 15	4.2	1530 J	19	<1 2	113
SL013 2-4	2160	4.3 J	1 J	25.5 J	<0 14	7.5	2160 J	18.2	1.4 J	34.6
SL022 2-4	3550	3.8 J	6.4	45.2 J	<0 1	6.3	6650 J	76.6	<1 3	28.7
SL024 2-4	2000	<3 5	0.79 J	13.3 J	<0 15	0.72 J	1130 J	10.4	<1 2	9.2
SL026 2-4	3700	<3 4	<0 25	19 J	<0 13	0.57 J	922 J	8.8	<1 1	4.9 J
SL032 2-4	2860	11.4 J	7.6	289 J	<10 UJ	3.6	7760	32.9	2.7 J	97.8 J
SL034 9-11	7310	7.9 J	4.3 J	319 J	<0 1	44.7 J	7810	62.9 J	5.1 J	533 J
SL035 9-11	4300	4.5 J	9 J	514 J	<0 09	17.7 J	19100	52.5 J	3.6 J	160 J
SL039 10-12	3140	14.9	3.1 J	240 J	0.15 J	13.3 J	17000	144 J	3 J	147 J
SL040 7 5-8.5 (c)	7230	<11 UJ	10.3 J	3860 J	<0.026	38.2 J	12400	76.7 J	3.5 J	785 J
SL040 7.5-8 5	5890	<9 7 UJ	10.2 J	691 J	<0 029	44.7 J	15300	128 J	3.2 J	710 J
SL040 9-11	7320	6.4 J	7.5 J	234 J	0.11 J	56.3 J	1330 17600	238 J	9.2 J	J
SL041 3-4	18800	108	10.7	466 J	<5 UJ	74.6	16200	170	8.9 J	1390 J
SL043 5-7	1400	<3 4	1.6 J	53.3 J	<0 09	18.5 J	11100	95.6 J	1.2 J	41.9 J
SL044 7-9	4470	15	4.4 J	236 J	<0.1	53.7 J	11000	473 J	3.6 J	347 J
SL047 3-5	2400	<3 7	6.9 J	96.1 J	0.16 J	17.8 J	13600	69.8 J	2.4 J	84.8 J
SL048 1-2	3460	11.8 J	3	58.2 J	<5 UJ	12.2	2660	27.4	1.8 J	109 J
SL050 2-4	2530	<4	<0 44	7.5 J	<0.17	<0.42	1520 J	4.3	<1 3	2.1 J
SL052 1-2	2780	8 J	0.8 J	71.9 J	<0.14	31.1	1450 J	90.1	6 J	170
SL053 4-6	618	<3 4	0.54 J	74.2	<0 09 UJ	<0 36	2170	2.8 J	<1 1	17.3 J
SL056 0-3" (d)	105	<8 7	0.27 J	4.9 J	<0.11 UJ	<0 35	272 J	0.47 J	<1 1	1.9 J
SL057 0-3" (d)	3660	<9 7	19.6	70.4	<0 22	2.5	3470	14.6	2.4 J	12.9
SL058 0-3" (d)	133	<8 8	0.34 J	8.6 J	<0 12	0.65 J	1760	2.5	<1 1	1.6 J
SL059 0-3" (d)	371	<8 9	<0 15	14.4 J	<0.023	<0 36	2590	3.9	<1 1	11.2
SL060 0-3" (d)	662	<8 6	<0 15	3.6 J	<0 023	0.74 J	1730	1.2 J	2.1 J	1.8 J

Notes:
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(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992.
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver
FDER Soil Action Level(a)	---	---	*77 mg/kg*	---	---	*17 mg/kg*	---	---	*165 mg/kg*	*165 mg/kg*
EPA Prelim. Remediation Goal(b)	*5400 mg/kg*	---	---	---	*27000 mg/kg*	*81 mg/kg*	*5400 mg/kg*	---	*1350 mg/kg*	*1350 mg/kg*
SL011 2-4	<0 17	1330 J	59.9	76.4 J	14.4	0.2	4.6 J	<57 8	<0 12	0.54 J
SL013 2-4	<0 17	11700 J	119	127 J	55.5	0.3	7.3 J	89.6 J	<0 11	1.6 J
SL022 2-4	<0 19	4770 J	166	272 J	33	0.17	5.3 J	131 J	0.16 J	1.3 J
SL024 2-4	<0 17	1350 J	15.7	101 J	9.6	0.11	2.5 J	78.5 J	<0 12	0.29 J
SL026 2-4	<0 17	2130 J	167	201 J	4.5	0.09	<2 1	205 J	<0 11	<0 25 UJ
SL032 2-4	<0 17	10700 J	762 J	1440	106 J	0.28	15.2	214 J	0.13 J	0.46 J
SL034 9-11	0.29 J	18300 J	1030	852 J	160 J	1.5	38.3 J	125 J	0.17 J	7.5
SL035 9-11	0.69	15900 J	354	1880	185 J	2.4	25.7 J	366 J	0.33 J	21.5
SL039 10-12	0.5 J	12700 J	376	653 J	171 J	0.86	10.3 J	255 J	0.13 J	3
SL040 7.5-8.5 (c)	10	32200 J	2200 J	1940	365 J	0.5	36.5 J	787 J	0.54 J	18.6 J
SL040 7 5-8 5	10	36700 J	804 J	1190 J	470 J	0.34	38.4 J	682 J	0.74 J	48.8 J
SL040 9-11	0.34 J	47100 J	622	798 J	614 J	0.59	185 J	233 J	0.31 J	4.4
SL041 3-4	0.91	59000 J	1240 J	1200 J	789 J	1.9	96.7	337 J	0.23 J	42.2 J
SL043 5-7	<0 17	7930 J	147	229 J	74.9 J	0.11	5.9 J	<56 6	0.18 J	2.1 J
SL044 7-9	0.41 J	26500 J	836	550 J	221 J	1.2	25.4 J	228 J	0.52 J	4
SL047 3-5	<0 18	10500 J	272	481 J	93 J	0.15	6.7 J	176 J	0.25 J	1.2 J
SL048 1-2	<0 19	6950 J	141 J	339 J	55.2 J	0.48	13.7	159 J	0.17 J	8.9 J
SL050 2-4	<0 2	16400 J	5	170 J	10.9	<0 04	<2 4	<65 2	<0 13	<10 UJ
SL052 1-2	<0 18	20000 J	548	289 J	117	1	56.1	119 J	<0 12 UJ	4.6 J
SL053 4-6	<0 17	2690	39.2	79.2 J	65.1	<0 03	<2 1	<107	<0 11	<0 25
SL056 0-3" (d)	<0 39	69.2	21.7	24.5 J	3.4	<0 084	<1 5	<38 5	<0 28 UJ	<0 5
SL057 0-3" (d)	<0 44	42900	368	293 J	150	<0 094	6.6 J	67.4 J	<0 6 UJ	<0 56
SL058 0-3" (d)	<0 4	109	4.5	45.8 J	11.1	<0 076	<1 5	<38 9	<0 33 UJ	0.55 J
SL059 0-3" (d)	<0 41	297	15.6	95.6 J	14.4	<0 072	2.2 J	<39 4	<0 29 UJ	<0 52
SL060 0-3" (d)	<0 38	274	14.1	60.4 J	6.3	<0 071	<1 5	<37 9	<0 28 UJ	<0 5

Notes·

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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Sodium	Thallium	Vanadium	Zinc
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	*19 mg/kg*	*1890 mg/kg*	*54000 mg/kg*
SL011 2-4	70.7 J	<0 21	3.8 J	383
SL013 2-4	106 J	<0 21	7.4 J	140
SL022 2-4	161 J	<0 22	9.1 J	154
SL024 2-4	85 J	<0 21 UJ	4 J	24.1
SL026 2-4	83.4 J	<0 2	11.9	20.4
SL032 2-4	109 J	<0 21	8.7 J	1710 J
SL034 9-11	148 J	<0 22	9.2 J	1210
SL035 9-11	237 J	<0 22	16.1	666
SL039 10-12	201 J	<0 22	7.9 J	748
SL040 7 5-8 5 (c)	<735 UJ	<0 39	9.4 J	4380
SL040 7 5-8 5	<783 UJ	<0 34	9.6 J	2680
SL040 9-11	303 J	<0 24	32.3	1100
SL041 3-4	176 J	<0 22	24.9	2650 J
SL043 5-7	109 J	<0 2	5.6 J	159
SL044 7-9	189 J	<0 22	10.2 J	1030
SL047 3-5	153 J	0.27 J	5.4 J	408
SL048 1-2	101 J	<0 22	13.7	270 J
SL050 2-4	106 J	<0 23	4 J	14.4
SL052 1-2	116 J	<0 22	12.1 J	537
SL053 4-6	82.4 J	<0 2	1.2 J	51.1 J
SL056 0-3" (d)	184 J	<0 31	1 J	5
SL057 0-3" (d)	<191	<0 34 UJ	31.1	212
SL058 0-3" (d)	<190	<0 31 UJ	0.77 J	5.5
SL059 0-3" (d)	<183	<0.31 UJ	2.8 J	16.8
SL060 0-3" (d)	<179	<0.3	1.2 J	4.2 J

Notes.
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2. The shaded values represent positive detections of the particular compound
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper
FDER Soil Action Level(a)	---	---	*55 mg/kg*	*2750 mg/kg*	---	*55 mg/kg*	---	*275 mg/kg*	---	---
EPA Prelim. Remediation Goal(b)	---	*108 mg/kg*	*81 mg/kg*	*13500 mg/kg*	*0 15 mg/kg*	*135 mg/kg*	---	*1350 mg/kg*	---	*9990 mg/kg*
SL061 0-3" (d)	929	<9 2	0.36 J	15.4 J	<0 024	<0 37	3830	4.8	<1 2	7.5
SL062 0-3" (d)	655	<12 4	<0 21	9.8 J	<0 17	0.56 J	3510	2.5 J	2.2 J	2.6 J
SL063 0-3"	1110	<3 3	0.33 J	10.6 J	<0 09	1.2	640 J	6	<1 1	8.2
SL064 0-3"	3140	<3 4	0.34 J	11.1 J	<0 09	0.41 J	2140	4.4	<1 2	2.2 J
SL065 0-3"	1410	<3 5	0.34 J	33.4 J	<0 09	44.1	1400	19.4	<1 2	62.1
SL066 0-3"	1290	<3 4	0.81 J	8.1 J	<0 09	0.76 J	27700 J	4.1	<1 1	9.3
SL066 2-4	1180	<60	<0 39	2.8 J	<0 15	0.5 J	16100 J	1.1 J	<1 1	3.7 J
SL067 0-3"	1050	7 J	0.55 J	20.7 J	<0 1	164	1380	185	2.4 J	46.4
SL068 0-3" (c)	2210	<8 3 UJ	0.27 J	7.2 J	<0 022	0.33 R	678 J	5.6 J	<1 1	<2 8 UJ
SL068 0-3"	1130	<3 3	0.55 J	4.8 J	<0.09	<0 35	457 J	5.1	<1 1	2.7 J
SL069 0-3"	1880	4.3 J	0.7 J	32.5 J	<0 1	124	2020	199	1.5 J	56.3
SL069 1-2	1260	<3 9	1.2 J	18.1 J	<0.1	1.6	368 J	5.2	<1 3	13.7
SL070 0-3" (c)	1570	<8 2 UJ	0.17 J	9 J	<0 022	0.33 R	3880	5.2 J	<1	<3 3 UJ
SL070 0-3"	1800	<3 3	<0 13	1.5 J	<0 09	<0 35	322 J	<1 9	<1 1	0.78 J
SL071 0-3"	10500	<4	2.2 J	48.2 J	<0.11	13.3	1450	16.8	1.7 J	58.4
SL072 0-3"	2830	<3 6	2.5	153 J	<0 12	5.4	2970 J	27.3	1.7 J	75.7
SL072 5-7	5770	5.3 J	3.1	179 J	<0 09	27.3	4910 J	35.4	3.5 J	5840
SL073 0-3" (c)	1710	<8 4 UJ	0.32 J	8.6 J	<0 022	0.34 R	20800	4.9 J	<1.1	<3 UJ
SL073 0-3"	1740	<3 3	0.66 J	8.5 J	<0.14	0.56 J	7000 J	5.3	<1 1	4 J
SL073 4-6	6100	<3 6	0.95 J	13.2 J	<0 17	<0 38	683 J	11.5	<1 2	2.4 J
SL074 0-3" (c)	2130	<8 4 UJ	0.46 J	8.8 J	<0.022	0.34 R	21400	8.2 J	<1 1	<5 4 UJ
SL074 0-3"	1460	<3 4	0.34 J	9.1 J	<0.09 UJ	<0 36	7280	1.8 J	<1 1	<2 7
SL074 5-6	1550	<3 5	0.36 J	8 J	<0 09 UJ	<0 36	4310	3.4 J	1.2 J	<2 1
SL075 0-3"	1120	<3 4	0.22 J	6.9 J	<0 09	<0 36	2540	4	<1 1	4.1 J
SL076 0-3"	4380	<4	12.6	66.3	<0.11	13.8	1350	19.5	2.6 J	107
SL077 0-3"	2150	<3 4	0.59 J	16.4 J	<0 09 UJ	3.1	3150	5.8 J	<1 2	17.1 J

Notes
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver
FDER Soil Action Level(a)	---	---	*77 mg/kg*	---	---	*17 mg/kg*	---	---	*165 mg/kg*	*165 mg/kg*
EPA Prelim. Remediation Goal(b)	*5400 mg/kg*	---	---	---	*27000 mg/kg*	*81 mg/kg*	*5400 mg/kg*	---	*1350 mg/kg*	*1350 mg/kg*
SL061 0-3" (d)	<0 42	1050	74.1	296 J	143	<0 08	<1 6	66 J	<0 3 UJ	<0 53
SL062 0-3" (d)	<0 57	325	15.1	159 J	18.7	<0 1	<2 2	<54 8	<0 4 UJ	<0 72
SL063 0-3"	<0 16	1350	44.6	66.9 J	16.7	0.09	2.6 J	<125	<0 11	0.51 J
SL064 0-3"	<0 17	1760	5.3	185 J	7.7	0.05 J	<2 1	<192	0.16 J	<0 25 UJ
SL065 0-3"	<0 17	2280	121	103 J	101	0.23	6.7 J	<99.5	<0 11	4.9
SL066 0-3"	<0 17	2110 J	160	233 J	32.3	0.09	2.8 J	96.6 J	<0 11	<40 UJ
SL066 2-4	<0 16	459 J	12.5	122 J	8.3	<0 03	<2	<54 1	<0 11	0.38 J
SL067 0-3"	0.37 J	8590	601	78.4 J	81.9	0.11	64.4	<104	<0 13	2.2 J
SL068 0-3" (c)	10	1000 J	34.6 J	137 J	12.1 J	<0 072	<1 4 UJ	<131 UJ	<0 24 UJ	0.48 R
SL068 0-3"	<0.16	665	349	93.7 J	6.6	<0 03	<2	<87.5	<0 11	<0 24 UJ
SL069 0-3"	<0 19	4040	484	219 J	48.3	0.15	36.1	<155	0.13 J	1.9 J
SL069 1-2	<0 19	4930	49.6	135 J	5.3	<0 04	<2 4	<110	0.16 J	0,58 J
SL070 0-3" (c)	10	1010 J	25.7 J	143 J	15.5 J	<0 071	2.3 J	<135 UJ	<0 23 UJ	0.47 R
SL070 0-3"	<0 16	317	1.3	43 J	6.4	<0 03	<2	<70 9	0.11 J	<0 24 UJ
SL071 0-3"	<0 2	6740	125	162 J	60.9	0.25	11.4	<220	<0 13	9.8
SL072 0-3"	<0 18	8650 J	241	298 J	72.9	0.85	11.3	166 J	<0 12	6 J
SL072 5-7	<0 18	31100 J	293	895 J	189	0.24	27.8	190 J	0.16 J	7.8 J
SL073 0-3" (c)	10	883 J	47.7 J	213 J	17.1 J	<0 08	1.5 J	<74 4 UJ	<0 24 UJ	0.48 R
SL073 0-3"	<0.16	2040 J	56.7	192 J	14	0.06	<2	73.7 J	<0 11	<0 24 UJ
SL073 4-6	<0 18	12900 J	4.2	128 J	2.5 J	0.07	<2 2	140 J	<0 12	<0 26 UJ
SL074 0-3" (c)	10	1460 J	41.3 J	405 J	24.9 J	<0.08	4.3 J	<152 UJ	<0 24 UJ	0.48 R
SL074 0-3"	<0 17	1040	17.8	174 J	12.6	0.03 J	<2 1	<84	<0.11	<0 25
SL074 5-6	<0.17	1020	10	207 J	15.9	<0 03	<2 1	<126	<0 11	<0 25
SL075 0-3"	<0 17	774	48.1	111 J	19	0.05 J	<2 1	<141	<0 11	<0 25 UJ
SL076 0-3"	<0 2	11400	196	200 J	103	0.57	9.8 J	<211	<0 13	4.9
SL077 0-3"	0.98	2680	77	961 J	25.7	0.07	<2 1	<136	0.14 J	<0 25

Notes:
1. All results are reported in milligrams per kilogram (mg/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992
"UJ" Signifies the quantitation limit was estimated and the compound was not detected The estimated limit follows the '<' sign
"J" Signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).

APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Sodium	Thallium	Vanadium	Zinc
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	*19 mg/kg*	*1890 mg/kg*	*54000 mg/kg*
SL061 0-3" (d)	<197	<0 32	3.1 J	46.6
SL062 0-3" (d)	<236	<0 44	2.7 J	10.4
SL063 0-3"	86.3 J	<0 2	5.2 J	35.5
SL064 0-3"	92.2 J	<0 2	5 J	8.3
SL065 0-3"	95.9 J	<0 21	3.8 J	205
SL066 0-3"	237 J	<0 2	4.5 J	66.1
SL066 2-4	209 J	<0 19	1.7 J	14.9
SL067 0-3"	122 J	<0 23	6.3 J	217
SL068 0-3" (c)	<211 UJ	<0 29	3.2 J	21.6
SL068 0-3"	104 J	<0 2	2.6 J	23.4
SL069 0-3"	106 J	<0 22	6.3 J	242
SL069 1-2	146 J	<0 23	4 J	12.5
SL070 0-3" (c)	<224 UJ	<0 29	1.8 J	19.6
SL070 0-3"	107 J	<0 2	2 J	0.86 J
SL071 0-3"	116 J	<0 24	9.4 J	205
SL072 0-3"	113 J	<0 21	17.3	295
SL072 5-7	138 J	<0 21	13.7	1690
SL073 0-3" (c)	<228 UJ	<0 29	2.4 J	20
SL073 0-3"	101 J	<0 2	5.8 J	27.2
SL073 4-6	99.2 J	<0 21	22	3.7 J
SL074 0-3" (c)	<243 UJ	<0 29	4.4 J	55.4
SL074 0-3"	88.3 J	<0 2	5.7 J	9 J
SL074 5-6	103 J	<0 2	5.2 J	5.6 J
SL075 0-3"	109 J	<0 2	3.2 J	24.3
SL076 0-3"	132 J	<0.24	7 J	357
SL077 0-3"	74.7 J	<0 2	4 J	150 J

Notes.
1. All results are reported in milligrams per kilogram (mg/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2 The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Adminstrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991
(d) Sample was collected for determination of fence boundary in February 1992.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected The estimated limit follows the '<' sign.
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper
FDER Soil Action Level(a)	---	---	*55 mg/kg*	*2750 mg/kg*	---	*55 mg/kg*	---	*275 mg/kg*	---	---
EPA Prelim. Remediation Goal(b)	---	*108 mg/kg*	*81 mg/kg*	*13500 mg/kg*	*0 15 mg/kg*	*135 mg/kg*	---	*1350 mg/kg*	---	*9990 mg/kg*
SL077 4-5	1180	<3 7	<0 15	2.3 J	<0 1 UJ	<0 39	362 J	1.8 J	<1 2	<2 3
SL079 0-3"	1370	<3 5	0.43 J	20.8 J	<0 09 UJ	0.65 J	2810	8.9 J	<1 2	7.2 J
SL079 4-6	655	<3 3	<0 13	2.1 J	<0 09 UJ	<0 34	118 J	1.6 J	<1 1	<1 1
SL080 0-3"	839	<3 4	0.18 J	1.9 J	<0 09	<0 35	104 J	<2 3	<1 1	0.98 J
SL081 0-3"	2470	<3 5	0.34 J	16 J	<0 09 UJ	0.46 J	12600	4.3 J	1.4 J	7.9 J
SL081 3-5	1290	<3 6	3.8	221	<0 1 UJ	3.8	9830	15.5 J	7.9 J	45 J
SL082 0-3"	1480	4.8 J	0.25 J	53.7	<0 09 UJ	7.7	537 J	472 J	1.9 J	22 J
SL082 3-5	2400	<3 5	<0 14	4.9 J	<0 09 UJ	1.3	219 J	6.9 J	<1 2	5.1 J
SL083 0-3"	805	<3 2	<0 13	22.7 J	<0 08 UJ	4.2	338 J	213 J	1.1 J	10.7 J
SL083 5-7	3550	<3 6	0.29 J	8.2 J	<0 1 UJ	0.64 J	146 J	23.8 J	<1 2	<2 5
SL084 0-3"	2110	5.6 J	1.3 J	62	<0 11	8.7	2380	25.3	1.6 J	167
SL085 0-3"	1070	<3 8	1.6 J	54.7	<0 1	2.5	5180	9.8	<1 3	29.9
SL086 0-3"	2060	<3 5	1.1 J	36 J	<0 09	7.3	8410	14.5	1.4 J	67
SL087 0-3"	1120	<5 6	0.22 J	11.6 J	<0 15	<0 59	924 J	8.4	<1 9	4 J
SL088 0-3"	2190	<5 2	0.62 J	74.8	<0 14	13.2	2130	74	2.7 J	73.3
SL089 0-3"	2680	4.8 J	0.56 J	31.1 J	<0 1	13.6	825 J	22	2.1 J	147
SL090 0-3"	2170	<4 3	2.9	39.4 J	<0 11	4.1	1060 J	12.6	<1 4	59.3
SL091 0-3"	1410	<3 7	0.2 J	8.9 J	<0 1	1.4	199 J	10.9	<1 3	10.9
SL092 0-3"	622	<4 2	0.72 J	11.5 J	<0 11	1.3 J	656 J	7.9	<1 4	8.1
SL093 0-3"	4660	5.3 J	1.2 J	70.8	<0 11	19.3	4980	32.4	3.3 J	153
SL094 0-3"	1610	<3 4	<0.13	5 J	<0 09	<0 36	149 J	<2 2	<1 1	1.3 J
SL095 0-3"	1670	<3 4	0.45 J	24.5 J	<0 09	0.48 J	75000	4.3	<1 1	5.6 J
SL096 0-3"	2270	<3 6	0.55 J	12.8 J	0.16 J	3.6	454 J	30.6	<1 2	26
SL096 2-4	3860	5.1 J	2 J	55.3	<0 1	21.9	1480	74.9	3.2 J	132
SL097 1-3	4560	6.8 J	2.8 J	338 J	<0 09	13.2 J	3390	70.2 J	3.8 J	105 J

Notes
1 All results are reported in milligrams per kilogram (mg/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver
FDER Soil Action Level(a)	---	---	*77 mg/kg*	---	---	*17 mg/kg*	---	---	*165 mg/kg*	*165 mg/kg*
EPA Prelim. Remediation Goal(b)	*5400 mg/kg*	---	---	---	*27000 mg/kg*	*81 mg/kg*	*5400 mg/kg*	---	*1350 mg/kg*	*1350 mg/kg*
SL077 4-5	<0 18	265	1.9	38.3 J	4.6	<0 03	<2 3	<99 1	<0 12	<0 27
SL079 0-3"	<0 17	1100	70.6	185 J	29.5	0.06	<2 1	<85 4	0.11 J	<0 25
SL079 4-6	<0 16	206	2.8	22.5 J	3.4	<0 03	<2	<97 8	<0 11	<0 24
SL080 0-3"	<0 17	497	8.9	25.6 J	2.1 J	0.05 J	<2 1	<78 2	<0 11	<0 24 UJ
SL081 0-3"	<0 17	2650	38.7	505 J	21.1	0.07	<2 1	<143	<0 11	<0 25
SL081 3-5	0.47 J	79800	403	448 J	361	1.3	13.2	<174	<0 12	0.95 J
SL082 0-3"	9.1	1150	1490	85.2 J	7.5	0.11	2.3 J	<197	<0 11	1.2 J
SL082 3-5	<0 17	585	21.8	32.7 J	3.5	<0 03	<2 2	<69 2	0.23 J	<0 26
SL083 0-3"	1.4	782	589	43.8 J	8.7	0.08	<2	<87 8	<0 11	0.38 J
SL083 5-7	0.74	5220	70	87.4 J	3.2 J	0.05 J	<2 2	<134	0.16 J	<0 26
SL084 0-3"	<0 2	8100	241	412 J	69.8	0.22	12.8	484 J	0.14 J	2 J
SL085 0-3"	<0 19	6810	123	199 J	44.4	<0.04	4 J	<161	0.14 J	0.58 J
SL086 0-3"	<0 17	5220	258	261 J	50.1	0.41	7.7 J	<146	<0 11	0.59 J
SL087 0-3"	<0 28	702	39.6	168 J	4.1 J	0.17	<3 4	129 J	<0 18	<0 41 UJ
SL088 0-3"	<0 26	4640	222	338 J	64.8	0.34	15.5	238 J	0.19 J	4.4 J
SL089 0-3"	<0 19	10300	522	202 J	75.4	0.11	43.9	<102	0.15 J	2 J
SL090 0-3"	<0 21	3690	116	280 J	45.8	0.23	17.3	<256	0.21 J	1.6 J
SL091 0-3"	<0 18	982	40.2	51.3 J	5.5	0.11	3.3 J	<148	0.15 J	0.5 J
SL092 0-3"	<0 21	1480	29.4	78.9 J	9.4	0.06 J	<2 6	<136	<0 14	0.78 J
SL093 0-3"	<0 2	17900	143	632 J	151	0.31	104	224 J	0.2 J	5.6 J
SL094 0-3"	<0 17	238	3.3	32.8 J	3.3 J	0.05 J	<2 1	<94 7	0.15 J	<0 25 UJ
SL095 0-3"	0.2 J	1220	180	870 J	55.4	<0 03	<2 1	<157	0.12 J	<0 25 UJ
SL096 0-3"	<0.18	4000	45.3	146 J	19.7	0.11	7.4 J	81.8 J	<0.12	1.7 J
SL096 2-4	<0 18	22100	242	236 J	136	0.55	37.1	<60.2	0.15 J	5.8 J
SL097 1-3	0.37 J	7410 J	212	422 J	91.7 J	0.67	15.2 J	125 J	0.27 J	20.7

Notes:
1. All results are reported in milligrams per kilogram (mg/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Sodium	Thallium	Vanadium	Zinc
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	*19 mg/kg*	*1890 mg/kg*	*54000 mg/kg*
SL077 4-5	86.5 J	<0 22	1.3 J	4.3 J
SL079 0-3"	96.5 J	<0.21	2.9 J	121 J
SL079 4-6	74 J	<0 19	1 J	5.8 J
SL080 0-3"	90.9 J	<0 2	3.8 J	2 J
SL081 0-3"	94.2 J	<0 21	7.3 J	22.5 J
SL081 3-5	113 J	<0 21	4.1 J	1010 J
SL082 0-3"	108 J	<0 2	7.8 J	656 J
SL082 3-5	86.9 J	<0 21	2.6 J	62.1 J
SL083 0-3"	94.2 J	<0 19	3.2 J	268 J
SL083 5-7	81.1 J	<0 21	10.4 J	43 J
SL084 0-3"	155 J	<0 24	7.7 J	314
SL085 0-3"	121 J	<0 23	4.7 J	231
SL086 0-3"	123 J	<0 21	3.3 J	351
SL087 0-3"	271 J	<0 33 UJ	5.1 J	14 J
SL088 0-3"	175 J	<0 31	6.8 J	263
SL089 0-3"	112 J	<0 23	3.2 J	364
SL090 0-3"	246 J	<0 25 UJ	6 J	306
SL091 0-3"	72.1 J	<0 22	2.8 J	30.9
SL092 0-3"	104 J	<0 25	3.1 J	30.4
SL093 0-3"	232 J	<0 24	7.3 J	478
SL094 0-3"	76 J	<0.2	2 J	3.1 J
SL095 0-3"	162 J	<0 2	5.8 J	65.2
SL096 0-3"	105 J	<0 22 UJ	4.7 J	70.7 J
SL096 2-4	130 J	<0 22 UJ	17.5	418 J
SL097 1-3	204 J	0.21 J	7.4 J	390

Notes.
1. All results are reported in milligrams per kilogram (mg/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper
FDER Soil Action Level(a)	---	---	*55 mg/kg*	*2750 mg/kg*	---	*55 mg/kg*	---	*275 mg/kg*	---	---
EPA Prelim. Remediation Goal(b)	---	*108 mg/kg*	*81 mg/kg*	*13500 mg/kg*	*0 15 mg/kg*	*135 mg/kg*	---	*1350 mg/kg*	---	*9990 mg/kg*
SL097 7-9	2200	<3 6	0.5 J	32.7 J	<0 1	24.7 J	1900	40.9 J	1.8 J	22 J
SL098 7-9	4500	<3 5	1.8 J	64.6 J	<0 09	9.1 J	4610	28 J	3.4 J	97.8 J
SL099 5-7	2070	9.1 J	3.6 J	107 J	<0 1	15.2 J	9250	36 J	2.8 J	92.4 J
SL100 4-6	1550	<3 5	0.83 J	25.2 J	<0 09	3.1 J	3020	46.5 J	<1.2	19.4 J
SL27001 0-3"	659	<3 3	0.37 J	15.4 J	<0 09	0.68 J	6140	18.1	<1 1	11.6
SL27001 2-4	1260	<3 3	<0 13	3.6 J	<0.09	<0 35	524 J	2.7	<1 1	0.89 J
SL27002 0-3"	590	<3 4	0.18 J	6.2 J	<0 09	0.56 J	356000	6.4	<1 1	1.1 J
SL27002 2-4	1060	<3 3	<0 13	3.1 J	<0 09	<0 34	21400	1.5 J	<1 1	1.2 J
SL27003 0-3"	725	4.3 J	0.5 J	10.5 J	<0 09	0.73 J	188000	16.9	<1 2	5.3 J
SL27003 2-4	1420	<3 3	<0 13	2.5 J	<0 09	<0 35	608 J	2.1 J	<1 1	0.52 J
SL27004 0-3"	764	<3 3	0.87 J	13.4 J	<0 09	0.93 J	38400	40.8	<1.1	10.5
SL27004 2-4	5010	<3 5	<0.14	2.6 J	<0 09	<0.37	2000	2.7	<1.2	0.46 J
SL27005 0-3"	1110	<3 5	0.36 J	8 J	<0 09	0.83 J	4810	15	<1.2	5.1 J
SL27005 2-4	1500	<3 5	0.14 J	9.7 J	0.1 J	<0 37	2070	4.1	<1.2	1.2 J
SL27006 0-3"	838	<3 4	0.29 J	8.4 J	<0 09	0.61 J	312000	6.6	<1 1	1.4 J
SL27006 2-4	2400	<3 4	<0 13	2.5 J	<0 09	<0 36	11300	2.8	<1 1	0.44 J
SL27007 0-3"	382	<3.4	0.75 J	38.7 J	<0 09	1.4	917 J	11.9	<1 1	4.6 J
SL27007 2-4	2850	<3 5	0.16 J	8 J	<0 09	<0 37	703 J	4.8	<1.2	0.84 J
SL27008 0-3"	503	<3 3	0.24 J	8.5 J	<0 09	<0 35	1990	8	<1.1	3.6 J
SL27008 2-4	1630	<3 4	<0 13	4.7 J	<5 UJ	<0 36	1700	3.1	<1 1	1.3 J
SL27009 0-3"	2910	<3 3	0.79 J	12.6 J	<5 UJ	0.44 J	120000	5.4	<1 1	1.8 J
SL27009 2-4	1580	<3 3	<0 13	<4	<0 09 UJ	<0 35	49300	2.2	<1 1	1.3 J
SL27010 0-3"	539	5.6 J	6.4	41.8 J	<5 UJ	1.4	16300	27.6	1.2 J	76.2 J
SL27010 2-4	1480	<3 4	0.13 J	4.3 J	<5 UJ	<0 36	524 J	2.1 J	<1 1	1.9 J
SL27011 0-3"	391	4.5 J	0.9 J	52 J	<5 UJ	1.6	4240	45.7	<1 1	16.1 J
SL27011 2-4	967	<3.4	0.13 J	5 J	<5 UJ	<0 36	628 J	2.2 J	<1 1	0.68 J

Notes:
1. All results are reported in milligrams per kilogram (mg/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
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"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver
FDER Soil Action Level(a)	---	---	*77 mg/kg*	---	---	*17 mg/kg*	---	---	*165 mg/kg*	*165 mg/kg*
EPA Prelim. Remediation Goal(b)	*5400 mg/kg*	---	---	---	*27000 mg/kg*	*81 mg/kg*	*5400 mg/kg*	---	*1350 mg/kg*	*1350 mg/kg*
SL097 7-9	0.34 J	2460 J	91.5	257 J	22.1 J	0.13	34.9 J	128 J	0.15 J	4.7
SL098 7-9	0.21 J	5440 J	118	432 J	38.8 J	0.09	30.9 J	269 J	0.16 J	2.4
SL099 5-7	0.32 J	12400 J	321	650 J	81.8 J	0.36	13.5 J	481 J	0.41 J	1.4 J
SL100 4-6	0.18 J	1850 J	81.9	175 J	15.9 J	0.09	2.1 J	87.2 J	0.23 J	0.5 J
SL27001 0-3"	<0 16	2350	177	172 J	22	0.05 J	4.3 J	94.6 J	<0 11	<0.24 UJ
SL27001 2-4	<0 16	327	7.2	62 J	4.2	<0 03	<2	113 J	<0 11	<0 24 UJ
SL27002 0-3"	<0 17	354	2.6	2380	28.9	<0 03	<2 1	<55 4	<0 11 UJ	<0 24 UJ
SL27002 2-4	<0 16	215	5.2	175 J	5.8	<0 03	<2	66.4 J	<0 11	<0 24 UJ
SL27003 0-3"	<0 17	1320	121	1360	38.7	<0 03	<2 1	123 J	<0 11 UJ	<0 25 UJ
SL27003 2-4	<0 16	202	2.1	34.2 J	3.8	<0 03	<2	<54.1	<0 11	<0 24 UJ
SL27004 0-3"	0.55	1980	255	287 J	19.7	0.05 J	<2	68.8 J	<0 11 UJ	<0 24 UJ
SL27004 2-4	<0 17	156	3.4	35.7 J	1.4 J	<0 03	<2 2	<58	0.31 J	<0 26 UJ
SL27005 0-3"	<0 17	1540	113	88.5 J	12.2	0.04 J	<2 1	128 J	<0 11	0.38 J
SL27005 2-4	<0 17	238	20.7	34.1 J	4.9	0.07	<2 2	80.8 J	<0 12	<0 26 UJ
SL27006 0-3"	<0 17	632	9.8	2200	35.2	<0 03	<2 1	69.6 J	<0 11 UJ	<0 24 UJ
SL27006 2-4	<0 17	184	2.3	110 J	7.8	<0 03	<2 1	66.3 J	<0 11	<0 25 UJ
SL27007 0-3"	<0 17	803	133	41.8 J	13.9	0.11	<2 1	68.1 J	<0 11	<0 24 UJ
SL27007 2-4	<0 17	243	19.1	30.7 J	4.6	0.07	2.2 J	<57 5	0.17 J	<0 25 UJ
SL27008 0-3"	<0.16	1020	71.3	73.3 J	12.2	0.03 J	2.9 J	96.6 J	<0 11	<0 24 UJ
SL27008 2-4	<0 17	169 J	14.4	32.6 J	2.8 J	<0 2 UJ	<2 1	72.9 J	<0 11	<10 UJ
SL27009 0-3"	<0 16	2480 J	8.3	892 J	17.3 J	<0.03	<2	159 J	0.18 J	<10 UJ
SL27009 2-4	<0.16	816 J	3.1	365 J	14.3 J	<0.03	<2	89.9 J	0.16 J	<10 UJ
SL27010 0-3"	<0 16	10000 J	2990 J	167 J	61 J	0.05 J	2.4 J	<5000	<5	<10 UJ
SL27010 2-4	<0 17	267 J	38.8	33.6 J	<5.7 UJ	<0 03	<2 1	68.7 J	<0.11	<10 UJ
SL27011 0-3"	<0 16	1700 J	620 J	83.7 J	20.5 J	0.06	<2	<54 7	<0 11	<10 UJ
SL27011 2-4	<0 17	139 J	3.5	20.1 J	7.4 J	0.03 J	<2.1	74.6 J	0.12 J	<10 UJ

Notes
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(c) Sample was taken during health and safety screening in December 1991
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APPENDIX C-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS TARGET ANALYTE LIST
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Sodium	Thallium	Vanadium	Zinc
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	*19 mg/kg*	*1890 mg/kg*	*54000 mg/kg*
SL097 7-9	388 J	0.21 J	4.1 J	149
SL098 7-9	319 J	<0 21	10.5 J	202
SL099 5-7	150 J	<0 22	24.3	479
SL100 4-6	119 J	<0 21	3.5 J	64.7
SL27001 0-3"	91.9 J	<0 2 UJ	1.9 J	139 J
SL27001 2-4	107 J	<0 2	1.2 J	10.9 J
SL27002 0-3"	169 J	<0 2	8.6 J	3.8 J
SL27002 2-4	85 J	<0 19	1.6 J	3 J
SL27003 0-3"	128 J	<0 2	6.7 J	81 J
SL27003 2-4	93.3 J	<0 19	1 J	1.2 J
SL27004 0-3"	87.9 J	<0 2	3.5 J	257 J
SL27004 2-4	68.5 J	<0 21	0.87 J	1.7 J
SL27005 0-3"	78.3 J	<0 21	3.5 J	140 J
SL27005 2-4	99.4 J	<0 21	0.74 J	23.3 J
SL27006 0-3"	142 J	<0 2	9.6 J	10.8 J
SL27006 2-4	104 J	<0 2	2.2 J	1.2 J
SL27007 0-3"	101 J	<0 2	2.2 J	321 J
SL27007 2-4	90 J	<0 21	1.1 J	33.7 J
SL27008 0-3"	98 J	<0 19	1939 .6 J	85.2 J
SL27008 2-4	109 J	<0 2	0.74 J	13.3 J
SL27009 0-3"	124 J	<0 2	10.2 J	27.7 J
SL27009 2-4	96 J	<0 2	3.5 J	5.7 J
SL27010 0-3"	83.6 J	<10	2.8 J	409 J
SL27010 2-4	84 J	<0 2	0.86 J	7.7 J
SL27011 0-3"	72.1 J	<0 2	2.1 J	2600 J
SL27011 2-4	89.2 J	<0 2	0.47 J	69.7 J

Notes
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(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
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Appendix C-5
Dioxins/Furans Analytical Summary

APPENDIX C-5
SUMMARY OF SOIL ANALYTICAL RESULTS
DIOXINS AND FURANS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDF	2,3,7,8-TCDD	2,3,7,8-TCDF	OCDD	OCDF
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	---	*11 ug/kg*	*43 ug/kg*	*0.85 ug/kg*	*4 3 ug/kg*	*0.0043 ug/kg*	*0.043 ug/kg*	---	---
SL034 0-3"	**1.6**	**0.33**	<0 095	<0 047	<0 052	<0 02	<0 02	<0 052	**9.8**	**1.5**
SL034 9-11	**0.58**	<0 3	<0 18	<0 073	<0 043	<0 014	<0 014	<0 019	**3.6**	<0 49
SL039 0-3"	**1.4**	**0.25**	<0 096	<0 042	<0 024	<0 049	<0 0091	<0 024	**9.4** J	**1.1** J
SL039 10-12	**2.2**	**0.44**	<0 11	<0 29	<0 04	<0 038	<0 015	<0 045 UJ	**13** J	**1.2** J
SL040 7 5-8 5 (c)	**2.2** J	**1.7** J	<0 63 UJ	<0 47 UJ	<0 39 UJ	<0 088 UJ	<0 16 UJ	<0 17 UJ	**17** J	<2 2 UJ
SL040 0-3"	**0.32**	<0 12	<0 028	<0 047	<0 021	<0 0054	<0 0047	<0 0081	**1.6** J	<0 25 UJ
SL040 9-11	**0.84**	<0 71	<0 2	<0 19	<0.13	<0 044	<0 037	<0 054 UJ	**3.2**	<0 81
SL040A 0-2 (c)	<1 3	<0 45	<0.33	<0 2	<0 27	<0 077	<0 054	<0 066	**8**	<1 6
SL043 0-3"	**0.24**	<0 1	<0 084	<0 12	<0 038	<0 07	<0 01	<0 014	**1.2** J	<0 35 UJ
SL043 5-7	<0 22 UJ	<0 1 UJ	<0 065	<0 051	<0 047	<0 017	<0 02	<0 015	<1 UJ	<0 51 UJ
SL044 0-3"	**1.3**	<0 26	<0 077	<0 13	<0 047	<0 014	<0 023	<0 044	**9** J	<0 78 UJ
SL044 7-9	**1.7** J	<0 46 UJ	<0 49	<0 24	<0 12	<0 044	<0 023 UJ	<0 068 UJ	**12** J	<1 2 UJ
SL047 0-3"	<0 045	<0 023	<0 025	<0 011	<0 024	<0 0056	<0 0042	<0 0069	<0 28	<0 1
SL047 3-5	<0 16	<0 075	<0 065	<0 026	<0 034	<0 0099	<0 0095	<0 01	**0.96** J	<0 23 UJ
SL068 0-3" (c)	**0.31**	**0.33**	<0 028	<0 03	<0 019	<0.058	<0 0091	<0 016	**2.2**	**2.9**
SL069 0-3"	<0 24	<0 049	<0 048	<0 027	<0 029	<0 016	<0 0099	<0 029	<0 54 UJ	<0 24 UJ
SL069 1-2	<0 086 UJ	<0 05 UJ	<0 037	<0 025	<0 029	<0 011	<0 0095	<0 0083	<0 2 UJ	<0 25 UJ
SL070 0-3" (c)	<0 092	<0 044	<0 024	<0 052	<0 022	<0 0061	<0 0045	<0 0079	**0.35**	<0 12
SL073 0-3" (c)	<0 046	<0 047	<0 034	<0 11	<0 026	<0 09	<0 0094	<0 0085	<0 24	<0 21
SL074 0-3" (c)	<0 11	<0 057	<0 037	<0.079	<0 018	<0 0095	<0 0072	<0 009	**0.67**	<0 17
SL096 0-3"	<0 076	<0 018	<0 018	<0 0094	<0 018	<0 0045	<0 0045	<0 0039	**0.24**	<0 1
SL096 2-4	<0 21	<0 076	<0 048	<0 029	<0 034	<0 012	<0 011	<0 019 UJ	**0.87** J	<0 27 UJ

Notes:
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APPENDIX C-5
SUMMARY OF SOIL ANALYTICAL RESULTS
DIOXINS AND FURANS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2,3,4,7,8,9-HpCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	1,2,3,7,8,9-HxCDF	2,3,4,6,7,8-HxCDF	2,3,4,7,8-PeCDF	HpCDDs (total)	HpCDFs (total)	HxCDDs (total)
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	*11 ug/kg*	*43 ug/kg*	*11 ug/kg*	*43 ug/kg*	*43 ug/kg*	*4 3 ug/kg*	---	---	---
SL034 0-3"	<0 097	<0 095	<0.047	<0 095	<0 047	<0 047	<0 02	**3.1**	**1.2**	**0.26**
SL034 9-11	<0 3	<0 18	<0.073	<0 18	<0 073	<0 073	<0.014	**1.2**	<0 3	<0 18
SL039 0-3"	<0 046	<0 096	<0 042	<0 096	<0 042	<0 042	<0 049	**3**	**0.73**	**0.55**
SL039 10-12	<0 07	<0.11	<0 26	<0 11	<0 073	<0 073	<0 038	**6.9**	**1.2**	**0.69**
SL040 7.5-8 5 (c)	<0 55 UJ	<0 63 UJ	<0 47 UJ	<0 63 UJ	<0 47 UJ	<0 47 UJ	<0 088 UJ	**4.1** J	**3** J	<0 63 UJ
SL040 0-3"	<0 12	<0.028	<0 047	<0 028	<0 047	<0 047	<0 0054	**0.63**	<0 12	**0.097**
SL040 9-11	<0 71	<0 2	<0 19	<0 2	<0.19	<0 19	<0 044	**1.6**	<0 71	**0.52**
SL040A 0-2 (c)	<0 45	<0 33	<0 2	<0.33	<0 2	<0 2	<0 077	<1 3	<0 45	<0 33
SL043 0-3"	<0 1	<0 084	<0.12	<0.084	<0.12	<0 12	<0 07	**0.49**	<0 1	<0 084
SL043 5-7	<0 1 UJ	<0.065	<0 051	<0 065	<0 051	<0 051	<0 017	<0 22 UJ	<0 1 UJ	<0 065
SL044 0-3"	<0 26	<0 077	<0 13	<0 077	<0 13	<0 13	<0 014	**2.6**	**0.36**	**0.32**
SL044 7-9	<0 46 UJ	<0 49	<0 24	<0 49	<0 24	<0 24	<0 044	**3.6** J	**0.54** J	<0 49
SL047 0-3"	<0 023	<0.025	<0.011	<0 025	<0.011	<0 011	<0 0056	**0.08**	<0.023	<0 025
SL047 3-5	<0 075	<0 065	<0.026	<0 065	<0 026	<0 026	<0 0099	**0.15**	<0 075	<0 065
SL068 0-3" (c)	<0 076	<0 028	<0 03	<0 028	<0 03	<0 03	<0 058	**0.56**	**1.2**	<0 028
SL069 0-3"	<0 049	<0 048	<0.027	<0 048	<0 027	<0.027	<0 016	<0 24	<0 049	<0 048
SL069 1-2	<0 05 UJ	<0 037	<0 025	<0 037	<0 025	<0 025	<0 011	<0 086 UJ	<0 05 UJ	<0 037
SL070 0-3" (c)	<0 044	<0 024	<0 052	<0 024	<0 052	<0 052	<0 0061	<0 092	<0 044	<0 024
SL073 0-3" (c)	<0 047	<0 034	<0.11	<0 034	<0 11	<0 11	<0 09	<0 046	<0 047	<0 034
SL074 0-3" (c)	<0 057	<0 037	<0.079	<0 037	<0.079	<0 079	<0 0095	<0 11	<0 057	<0 037
SL096 0-3"	<0 018	<0 018	<0.0094	<0 018	<0.0094	<0 0094	<0 0045	<0 076	<0 018	<0 018
SL096 2-4	<0 076	<0 048	<0 029	<0 048	<0 029	<0.029	<0.012	**0.39**	<0 076	<0 048

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APPENDIX C-5
SUMMARY OF SOIL ANALYTICAL RESULTS
DIOXINS AND FURANS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	HxCDFs (total)	PeCDDs (total)	PeCDFs (total)	TCDDs (total)	TCDFs (total)
FDER Soil Action Level(a)	---	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	---	---	---	---
SL034 0-3"	**0.27**	<0 052	<0 02	<0 02	<0 052
SL034 9-11	<0 073	<0 043	<0 014	<0.014	<0 019
SL039 0-3"	**0.18**	<0 024	<0 049	<0 0091	**0.06**
SL039 10-12	**0.65**	<0 04	**0.12**	<0 015	**0.084** J
SL040 7 5-8.5 (c)	<0 47 UJ	<0 39 UJ	<0 088 UJ	<0 16 UJ	<0 17 UJ
SL040 0-3"	<0 047	<0.021	<0 0054	<0 0047	<0 0081
SL040 9-11	<0 19	<0 13	<0 044	<0 037	<0 054 UJ
SL040A 0-2 (c)	<0 2	<0 27	<0 077	<0 054	<0 066
SL043 0-3"	<0.12	<0 038	<0 07	<0 01	**0.13**
SL043 5-7	<0 051	<0 047	<0 017	<0 02	<0 015
SL044 0-3"	<0 13	<0 047	<0 014	<0 023	**0.079**
SL044 7-9	<0 24	<0 12	<0 044	<0 023 UJ	<0 068 UJ
SL047 0-3"	<0 011	<0 024	<0 0056	<0 0042	<0 0069
SL047 3-5	<0 026	<0 034	<0 0099	<0 0095	<0 01
SL068 0-3" (c)	**0.14**	<0 019	<0 058	<0 0091	<0 016
SL069 0-3"	<0.027	<0 029	<0 016	<0 0099	<0 029
SL069 1-2	<0 025	<0 029	<0 011	<0 0095	<0 0083
SL070 0-3" (c)	<0 052	<0 022	<0 0061	<0 0045	<0 0079
SL073 0-3" (c)	<0 11	<0.026	<0 09	<0 0094	<0 0085
SL074 0-3" (c)	<0.079	<0 018	<0 0095	<0 0072	<0 009
SL096 0-3"	<0.0094	<0 018	<0 0045	<0 0045	<0 0039
SL096 2-4	<0.029	<0 034	<0 012	<0 011	<0 019 UJ

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2 The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
"J" Signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).

Appendix C-6
Radionuclides Analytical Summary

APPENDIX C-6
SUMMARY OF SOIL ANALYTICAL RESULTS
RADIONUCLIDES
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Gross alpha	Gross beta	Radium-226	Radium-228
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	---	*2.5x 10E-5 pCi/g*	*7.7 pCi/g*
SL011 2-4	1	0.8	0.5	<0 3
SL013 2-4	2.4	1.3	0.5	<0 3
SL022 2-4	1.8	1.6	1.1	0.5
SL024 2-4	1.7	0.8	0.6	<0 3
SL026 2-4	2	3.3	1.2	<0 3
SL032 2-4	1.5	1.2	0.8	<0 3
SL034 9-11	2.6	3.9	1.1	<0 3
SL035 9-11	2.2	4	0.7	<0 3
SL039 10-12	1.8	1.1	0.5	0.4
SL040 7 5-8 5 (c)	14.6	4.6	4	0.4
SL040 9-11	1	<0 4	1.2	<0 3
SL041 3-4	2.5	3.9	1.4	<0 3
SL043 5-7	3	2.1	0.3	0.6
SL044 7-9	2	<0 4	0.5	0.4
SL047 3-5	1.6	<0 4	0.4	0.6
SL048 1-2	1.9	2.1	1.3	<0 3
SL050 2-4	2.2	2	0.8	<0 3
SL052 1-2	2.3	2.1	0.9	<0 3
SL053 4-6	0.9	0.7	0.6	<0 3
SL057 0-3" (d)	2.6	5.1	1.3	<0 3
SL058 0-3" (d)	1	0.8	<0 3	<0 3
SL059 0-3" (d)	6.3	1.3	0.4	<0 3
SL060 0-3" (d)	1.5	1	<0 3	<0 3
SL061 0-3" (d)	2.9	2.5	0.6	<0 3
SL062 0-3" (d)	0.5	0.5	0.4	<0 3
SL063 0-3"	2	1.2	0.9	<0 3

Notes.
1. All results are reported in picocuries per per gram (pCi/g) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected The estimated limit follows the '<' sign.
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APPENDIX C-6
SUMMARY OF SOIL ANALYTICAL RESULTS
RADIONUCLIDES
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Gross alpha	Gross beta	Radium-226	Radium-228
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	---	*2 5x 10E-5 pCi/g*	*7.7 pCi/g*
SL064 0-3"	1.9	2.1	1	0.5
SL065 0-3"	1.2	1.6	0.7	<0 3
SL066 0-3"	1.6	1.6	1.1	<0 3
SL066 2-4	1.7	0.8	0.5	<0 3
SL067 0-3"	1.7	2.2	1.1	<0 3
SL068 0-3" (c)	0.9	1.7	0.4	0.5
SL068 0-3"	0.8	0.8	0.5	<0 3
SL069 0-3"	2	1.2	0.4	<0 3
SL069 1-2	1.1	0.6	1.1	<0 3
SL070 0-3" (c)	1	0.7	0.4	<0 3
SL070 0-3"	0.7	0.3	0.7	<0 3
SL071 0-3"	1.3	1.7	0.9	<0 3
SL072 0-3"	2.7	1.9	1.4	<0 3
SL072 5-7	2.7	0.9	0.8	<0 3
SL073 0-3" (c)	2.3	<0 4	0.4	<0 3
SL073 0-3"	2.2	0.9	0.9	<0 3
SL073 4-6	2.8	1.9	1.5	0.5
SL074 0-3" (c)	2.6	1	0.4	<0.3
SL074 0-3"	0.7	1.2	0.8	<0 3
SL074 5-6	1.6	1.2	0.9	<0 3
SL075 0-3"	1	1.3	0.8	<0 3
SL076 0-3"	2.4	2.8	0.6	<0 3
SL077 0-3"	1.4	0.6	1	<0 3
SL077 4-5	0.7	<0 4	0.4	<0 3
SL079 0-3"	2.4	2.4	0.4	0.3
SL079 4-6	1.2	1	0.6	<0 3

Notes:
1. All results are reported in picocuries per per gram (pCi/g). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991
(d) Sample was collected for determination of fence boundary in February 1992
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign
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APPENDIX C-6
SUMMARY OF SOIL ANALYTICAL RESULTS
RADIONUCLIDES
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Gross alpha	Gross beta	Radium-226	Radium-228
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	---	*2.5x 10E-5 pCi/g*	*7 7 pCi/g*
SL080 0-3"	1.1	0.7	0.6	<0 3
SL081 0-3"	2	0.6	1.5	<0 3
SL081 3-5	2	<0 4	1.9	<0 3
SL082 0-3"	8.8	4.4	40.2	0.6
SL082 3-5	2	1.4	0.6	0.5
SL083 0-3"	3.4	1.8	2.7	<0 3
SL083 5-7	3.3	1.5	0.7	0.5
SL084 0-3"	1.7	1.7	1	<0 3
SL085 0-3"	0.6	2.9	0.6	<0 3
SL087 0-3"	2.6	3.4	1	1.2
SL088 0-3"	3.8	2	1.2	<0 3
SL089 0-3"	1.4	1.5	0.9	<0 3
SL090 0-3"	1.7	1.5	0.8	<0 3
SL091 0-3"	1.7	1.5	0.7	<0 3
SL092 0-3"	3.2	4.4	1	<0 3
SL093 0-3"	1.8	2.3	0.6	<0 3
SL094 0-3"	1.8	2	0.9	<0 3
SL095 0-3"	1.6	0.7	0.7	<0 3
SL096 0-3"	2.1	2.2	0.9	0.7
SL096 2-4	2.7	32.2	0.7	<0 3
SL097 1-3A	1.8	1.6		0.5
SL097 7-9	1.2	<0.4	<0 4	0.4
SL098 7-9	3.2	2.3	0.8	0.7
SL099 5-7	1.8	1.9	0.8	<0 3
SL100 4-6	1.9	1	0.6	0.8

Notes:
1. All results are reported in picocuries per per gram (pCi/g). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2 The shaded values represent positive detections of the particular compound
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminate Soils, May 1992.
(b) U S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992
"UJ" Signifies the quantitation limit was estimated and the compound was not detected The estimated limit follows the '<' sign
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APPENDIX C-6
SUMMARY OF SOIL ANALYTICAL RESULTS
RADIONUCLIDES
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Gross alpha	Gross beta	Radium-226	Radium-228
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	---	*2 5x 10E-5 pCi/g*	*7 7 pCi/g*
SL27001 0-3"	<0 3	1.2	0.7	1
SL27001 2-4	0.8	0.5	1.1	<0 3
SL27002 0-3"	16.7	5.2	1	<0 3
SL27002 2-4	0.6	0.5	1	<0 3
SL27003 0-3"	5.6	7.2	0.8	<0 3
SL27003 2-4	1.2	0.7	0.6	<0 3
SL27004 0-3"	3.2	4	0.6	<0 3
SL27004 2-4	1.7	1	0.6	<0 3
SL27005 0-3"	2.3	1.1	0.6	<0 3
SL27005 2-4	1.4	0.8	0.9	<0 3
SL27006 0-3"	0.8	6.5	0.7	<0 3
SL27006 2-4	2	0.9	0.4	<0 3
SL27007 0-3"	1.4	1.1	<0 3	<0 3
SL27007 2-4	1.7	0.8	0.4	<0 3
SL27008 0-3"	0.9	<0 4	0.6	<0 3
SL27008 2-4	1.8	1.3	0.4	<0 3
SL27009 0-3"	<0 3	1.5	0.7	0.5
SL27009 2-4	1.1	0.5	0.4	<0 3
SL27010 0-3"	2.4	1.5	<0 3	<0 3
SL27010 2-4	1.2	<0 4	0.4	<0 3
SL27011 0-3"	0.5	1.5	<0 3	<0.3
SL27011 2-4	1.5	0.9	0.5	<0 3

Notes.
1. All results are reported in picocuries per per gram (pCi/g). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
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Appendix C-7
Tentatively Identified Compounds Analytical Summary

APPENDIX C-7
SUMMARY OF SOIL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED COMPOUNDS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL040 0-3"	18-DEC-91	1-Pentanol, 3,3,4-Trimethyl-	3500	J	65502-58-1	Substituted phenol
		Cyclohexane, 1,2-Diethyl-1-M	23000	J	61141-79-5	Petroleum contaminant
		Cyclohexane, undecyl-	50000	J	54105-66-7	Petroleum contaminant
		Cyclohexane, (4-methylpentyl	34000	J	61442-20-9	Petroleum contaminant
		Cyclopentane, 1-Methyl-3-(2-	27000	J	29053-04-1	Petroleum contaminant
		Cyclopentane, 1,2-Dimethyl-3	24000	J	489-20-3	Petroleum contaminant
		Decane, 2-Cyclohexyl-, 2-Cycl	41000	J	13151-71-0	Petroleum contaminant
		Decane, 2,3,7-trimethyl-	49000	J	62238-13-5	Petroleum contaminant
		Dodecane, 2,6,10-trimethyl-	68000	J	3891-98-3	Petroleum contaminant
		Naphthalene, decahydro-	32000	J	91-17-8	Petroleum contaminant
		Naphthalene, Decahydro-1,6-D	24000	J	1750-51-2	Petroleum contaminant
		Naphthalene, decahydro-2-met	25000	J	2958-76-1	Solvent for oils, fats, resins
		Tridecane, 7-methyl-	97000	J	26730-14-3	Petroleum contaminant
SL056 0-3"	05-FEB-92	Hexanedioic acid, dioc	**8200**	R	123-79-5	Organic acid
		3-Heptanone, 2,4-dimeth	270	J	18641-71-9	Substituted ketone
SL057 0-3"	05-FEB-92	1-Phenanthrenecarboxylic aci	2300	J	740-19-8	Organic acid
		Hexadecanoic Acid	940	J	57-10-3	Naturally occurring fatty acid
		Hexanedioic acid, dioctyl es	**15000**	R	123-79-5	Organic acid
SL058 0-3"	05-FEB-92	2-Hexanone, 6-(acetyloxy)-	310	J	4305-26-4	Substituted ketone
		3-Heptanone, 2,4-dimethyl-	500	J	18641-71-9	Substituted ketone
		Hexanedioic acid, dioctyl es	**13000**	R	123-79-5	Organic acid
SL059 0-3"	05-FEB-92	3-Heptanone, 2,4-dimethyl-	590	J	18641-71-9	Substituted ketone
		Hexanedioic acid, dioctyl es	**11000**	R	123-79-5	Organic acid
SL060 0-3"	05-FEB-92	3-Heptanone, 2,4-dimethyl-	380	J	18641-71-9	Substituted ketone
		5-Hexen-2-One, 5-Methyl-	420	J	3240-09-3	
		Acetic acid, 1-methylethyl e	**770**	R	108-21-4	Isopropyl acetate (solvent)
		Hexanedioic acid, dioctyl es	**13000**	R	123-79-5	Organic acid

Notes:
CAS = Chemical Abstracts Service. CAS numbers not available for all listed compounds.
"J" signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).
All rejected concentrations are shaded.

APPENDIX C-7
SUMMARY OF SOIL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED COMPOUNDS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL061 0-3'	05-FEB-92	5-Hexen-2-One, 5-Methyl-	760	J	3240-09-3	
		Hexadecanoic Acid	350	J	57-10-3	Naturally occuring fatty acid
		Hexanedioic acid, dioctyl es	**15000**	R	123-79-5	Organic acid
SL062 0-3'	05-FEB-92	3-Heptanone, 2,4-dimethyl-	320	J	18641-71-9	Substituted ketone
		Hexanedioic acid, dioctyl es	**14000**	R	123-79-5	Organic acid
		Hexane, 2-bromo-	440	J	3377-86-4	Petroleum contaminant
SL063 0-3'	10-MAR-92	Hexadecanoic Acid	870	J	57-10-3	Naturally occuring fatty acid
		Decanedioic acid, dide	780	J	2432-89-5	Organic acid
		Undecane, 3,8-dimethyl	360	J	17301-30-3	Component of jet fuel
		Decane, 2,3,5-Trimethy	550	J	62238-11-3	Petroleum contaminant
		Acetic acid, 1-methylet	**1800**	R	108-21-4	Isopropyl acetate (solvent)
		1,2-Ethanediol, monoace	330	J	542-59-6	Column degradation product
SL064 0-3'	10-MAR-92	Hexadecanoic Acid	1000	J	57-10-3	Naturally occuring fatty acid
		Silane, trichloroeicos	790	J	18733-57-8	Petroleum contaminant
		10-Undecen-1-ol	850	J	112-43-6	Petroleum contaminant
		Acetic acid, 1-methylet	**2000**	R	108-21-4	Isopropyl acetate (solvent)
SL065 0-3'	11-MAR-92	1,2-Ethanediol, monoac	2900	J	542-59-6	Column degradation product
		Hexadecanoic Acid	790	J	57-10-3	Naturally occuring fatty acid
		Cyclodecane, Methyl-	480	J	13151-43-4	Petroleum contaminant
		Acetic acid, 1-methylet	**1900**	R	108-21-4	Isopropyl acetate (solvent)
		Hexane, 2-bromo-	480	J	3377-86-4	Petroleum contaminant
SL067 0-3'	11-MAR-92	1,2,3,4-Tetrachloronap	2200	J	20020-02-4	
		Hexadecanoic Acid	**1400**	R	57-10-3	Naturally occuring fatty acid
		1,2,3,4-Tetrachloronap	3600	J	20020-02-4	
		Acetic acid, 1-methylet	**1800**	R	108-21-4	Isopropyl acetate (solvent)

Notes.
CAS = Chemical Abstracts Service. CAS numbers not available for all listed compounds.
"J" signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP)
All rejected concentrations are shaded.

APPENDIX C-7
SUMMARY OF SOIL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED COMPOUNDS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL068 0-3"	17-DEC-92	1-Octene	13	J	111-66-0	Use in plasticizers, surfactants
		1,1'-Biphenyl, 2,2',3,3',6,6	220	J	38411-22-2	
		1,1'-Biphenyl, 2,2',3,4',5',	230	J	38380-04-0	
		2(5H)-Furanone, 5,5-dimethyl	**1500**	R	20019-64-1	Substituted ketone
		3-Heptanone, 2,4-dimethyl-	930	J	18641-71-9	Substituted ketone
		Cyclohexene	710	J	110-83-8	Petroleum contaminant
		Decane, 6-Ethyl-2-Methyl-	270	J	62108-21-8	Petroleum contaminant
		Glycine, N-methyl-N-(1-oxodi	290	J	97-78-9	
		Heptane, 2,3-dimethyl-	**310**	R	3074-71-8	Petroleum contaminant
		Hexadecane	420	J	544-76-3	Petroleum contaminant
		Hexane, 2,2,3,3-tetramethyl-	**190**	R	13475-81-5	Petroleum contaminant
		Octane, 2-Methyl-	**220**	R	3221-61-2	Petroleum contaminant
		Silane, Trimethyl-2-Propenyl	21	J	812-15-7	Petroleum contaminant
		Silanol, Trimethyl-	**14**	R	1066-40-6	Substituted phenol
SL068 0-3"	11-MAR-92	1,2-Ethanediol, monoac	2400	J	542-59-6	
		Hexadecanoic Acid	590	J	57-10-3	Naturally occuring fatty acid
		Acetic acid, 1-methylet	**1600**	R	108-21-4	Isopropyl acetate (solvent)
		2-Hexanone, 6-(acetylox	**360**	R	4305-26-4	Substituted ketone
SL068_R 0-3"	17-DEC-91	Silanol, Trimethyl-	**11**	R	1066-40-6	Substituted phenol
SL069 0-3"	11-MAR-92	Hexadecanoic Acid	970	J	57-10-3	Naturally occuring fatty acid
		Acetic acid, 1-methylet	**1800**	R	108-21-4	Isopropyl acetate (solvent)
SL069 1-2'	11-MAR-92	Hexadecanoic Acid	750	J	57-10-3	Isopropyl acetate (solvent)
		1-Decanol, 2-ethyl-	390	J	21078-65-9	Substituted phenol
		Acetic acid, 1-methylet	**1800**	R	108-21-4	Isopropyl acetate (solvent)
		3-Heptanone, 2,4-dimeth	**2300**	R	18641-71-9	Substituted ketone
SL070 0-3"	17-DEC-91	1,2-Benzenedicarboxylic acid	**190**	R	17851-53-5	Organic acid
		2(5H)-Furanone, 5,5-dimethyl	**1100**	R	20019-64-1	Substituted ketone
		3-Heptanone, 2,4-dimethyl-	370	J	18641-71-9	Substituted ketone

Notes:
CAS = Chemical Abstracts Service CAS numbers not available for all listed compounds.
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All rejected concentrations are shaded.

APPENDIX C-7
SUMMARY OF SOIL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED COMPOUNDS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL070 0-3"	17-DEC-91	Acetic acid, 1-methylethyl e	**260**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclohexene	530	J	110-83-8	Petroleum contaminant
		Decane, 2,3,5-Trimethyl-	240	J	62238-11-3	Petroleum contaminant
		Heptane, 2,3-dimethyl-	**170**	R	3074-71-3	Petroleum contaminant
		Hexane, 2,3,5-trimethyl-	**230**	R	1069-53-0	Petroleum contaminant
		Silanol, Trimethyl-	**10**	R	1066-40-4	Substituted phenol
SL070 0-3"	11-MAR-92	Hexadecanoic Acid	530	J	57-10-3	Naturally occuring fatty acid
SL070_R 0-3"	17-DEC-91	Silane, (2-ethyl-1-methyl-1-	26	J	41784-60-5	Petroleum contaminant
		Silanol, Trimethyl-	11	J	1066-40-4	Substituted phenol
SL071 0-3"	11-MAR-92	3-Hexanone, 2-Methyl-	820	J	18641-71-9	Substituted ketone
		1,2-Ethanediol, monoac	4600	J	542-59-6	
		Decane, 2,3,7-trimethy	450	J	62238-13-5	Petroleum contaminant
		Undecane, 2,10-Dimethy	1100	J	17301-27-8	Component of jet fuel
		Acetic acid, 1-methylet	**2600**	R	108-21-4	Isopropyl acetate (solvent)
		2-Cyclohexen-1-One	470	J	930-68-7	Petroleum contaminant
		Ethanone, 1-Oxiranly-	740	J	4401-11-0	Substituted ketone
SL073 0-3"	17-DEC-91	2(5H)-Furanone, 5,5-dimethyl	**1200**	R	20019-64-1	Substituted ketone
		3-Heptanone, 2,4-dimethyl-	650	J	18641-71-9	Substituted ketone
		Acetic acid, 1-methylethyl e	**300**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclohexene	550	J	110-83-8	Petroleum contaminant
		Ethanone, 1-(3-ethyloxiranyl	1000	J	17257-81-7	Substituted ketone
		Heptane, 2,3-dimethyl-	**290**	R	3074-71-3	Petroleum contaminant
		Hexane, 2,3,5-trimethyl-	**220**	R	1069-53-0	Petroleum contaminant
		Silane, Trimethyl-2-Propenyl	18	J	812-15-7	Petroleum contaminant
		Silanol, Trimethyl-	**8.9**	R	1066-40-4	Substituted phenol
SL074 0-3"	17-DEC-91	1,2-Benzenedicarboxylic acid	**260**	R	117-82-8	Organic acid
		2(5H)-Furanone, 5,5-dimethyl	**1900**	R	20019-64-1	Substituted ketone
		3-Heptanone, 2,4-dimethyl-	290	J	18641-71-9	Substituted ketone
		Heptane, 2,3-dimethyl-	**260**	R	3074-71-3	Petroleum contaminant
		Hexane, 2,3,5-trimethyl-	**200**	R	1069-53-0	Petroleum contaminant
		Silanol, Trimethyl-	**10**	R	1066-40-4	Substituted phenol

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APPENDIX C-7
SUMMARY OF SOIL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED COMPOUNDS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL075 0-3'	11-MAR-92	1,2-Ethanediol, monoac	2800	J	542-59-6	
		Hexadecanoic Acid	1100	J	57-10-3	Naturally occuring fatty acid
		Hexanedioic acid, dioc	7900	J	123-79-5	Organic acid
		1-Decanol, 2-ethyl-	550	J	21078-65-9	Substituted phenol
		Dodecane, 1-Iodo-	330	J	4292-19-7	Petroleum contaminant
		Undecane, 2,10-Dimethy	410	J	17301-27-8	Component of jet fuel
		Stigmast-4-En-3-One	1000	J	1058-61-3	
		Acetic acid, 1-methylet	**1800**	R	108-21-4	Isopropyl acetate (solvent)
		2-Hexanone, 6-(acetylox	420	J	4305-26-4	Substituted ketone
SL076 0-3'	11-MAR-92	Isooctanol	6 7	J	26952-21-6	Substituted phenol
		Hexadecanoic Acid	**990**	R	57-10-3	Naturally occuring fatty acid
		Decanedioic acid, dide	680	J	2432-89-5	Organic acid
		Acetic acid, 1-methylet	**2400**	R	108-21-4	Isopropyl acetate (solvent)
		1-Propanol (ACN)	5	J	71-23-8	Substituted phenol
		.alpha.-Pinene (ACN)	610	J	80-56-8	Petroleum contaminant
		3-Heptanone, 2,4-dimeth	**3700**	R	18640-79-5	Substituted ketone
SL080 0-3'	11-MAR-92	Hexadecanoic Acid	540	J	57-10-3	Naturally occuring fatty acid
		Hexanedioic acid, mono	5600	J	4337-65-9	Organic acid
		Decanedioic acid, dide	440	J	2432-89-5	Organic acid
		Decane, 2,3,7-trimethy	390	J	62238-13-5	Petroleum contaminant
		Undecane, 2,10-Dimethy	350	J	17301-27-8	Component of jet fuel
		Acetic acid, 1-methylet	**1600**	R	108-21-4	Isopropyl acetate (solvent)
		3-Heptanone, 2,4-dimeth	**1500**	R	18641-71-9	Substituted ketone
SL084 0-3'	11-MAR-92	3-Hexanone, 2-Methyl-	410	J	18641-71-9	Substituted ketone
		Hexadecanoic Acid	**1200**	R	57-10-3	Naturally occuring fatty acid
		Octane, 2,4,6-trimethy	370	J	21078-65-9	Petroleum contaminant
		1-Decanol, 2-ethyl-	800	J	21078-65-9	Substituted phenol
		Acetic acid, 1-methylet	**2200**	R	108-21-4	Isopropyl acetate (solvent)
		Ethanone, 1-Oxiranyl-	550	J	4401-11-0	Substituted ketone

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TENTATIVELY IDENTIFIED COMPOUNDS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL085 0-3"	11-MAR-92	1,2-Ethanediol, monoac	3300	J	542-59-6	
		Hexadecanoic Acid	650	J	57-10-3	Naturally occuring fatty acid
		Decane, 3,8-Dimethyl-	390	J	17312-55-9	Petroleum contaminant
		Undecane, 2,10-Dimethy	590	J	17301-27-8	Component of jet fuel
		Undecane, 2,10-Dimethy	590	J	17301-27-8	Component of jet fuel
		Acetic acid, 1-methylet	**2000**	R	108-21-4	Isopropyl acetate (solvent)
SL086 0-3"	11-MAR-92	Hexadecanoic Acid	910	J	57-10-3	Naturally occuring fatty acid
		1-Decanol, 2-ethyl-	630	J	21078-65-9	Substituted phenol
		Dodecane, 1-Iodo-	770	J	4292-19-7	Petroleum contaminant
		Benzo[j]fluoranthene	350	J	205-82-3	Petroleum contaminant
		Decane, 2,3,5-Trimethy	400	J	62238-11-3	Petroleum contaminant
		Pentane, 2,4-Dimethyl-2	330	J	597-45-5	Petroleum contaminant
		Acetic acid, 1-methylet	**1800**	R	108-21-4	Isopropyl acetate (solvent)
SL087 0-3"	08-MAR-92	Cyclohexene, 3-Methyl-	14	J	586-63-0	Petroleum contaminant
		Bicyclo[3.1 0]Hexane,	37	J	58037-87-9	Petroleum contaminant
		1,3,6-Octatriene, 3,7-	5200	J	3779-61-1	Petroleum contaminant
		Camphene (DOT)	380	J	79-92-5	Petroleum contaminant
		Bicyclo[3.1.1]Heptane,	2900	J	18172-67-3	Petroleum contaminant
		.Beta.-Myrcene	64	J	123-35-3	Petroleum contaminant
		Bicyclo[3.1.0]Hexane,	31	J	58037-87-9	Petroleum contaminant
		Bicyclo[2.2 1]Hept-2-E	1100	J	464-17-5	
		Benzene, 1-methyl-3-(1	670	J	535-77-3	Petroleum contaminant
		1,4-Cyclohexadiene, 1-	31	J	99-85-7	Petroleum contaminant
		Hexadecanoic Acid	2400	J	57-10-3	Naturally occuring fatty acid
		Undecane, 3,8-dimethyl	890	J	17301-30-3	Component of jet fuel
		Decane, 2,3,5-Trimethy	1100	J	62238-11-3	Petroleum contaminant
		Decane, 2,3,5-Trimethy	770	J	62238-11-3	Petroleum contaminant
		Decane, 2,3,7-trimethy	930	J	62238-13-5	Petroleum contaminant
		Octane, 2,4,6-trimethy	720	J	62016-37-9	Petroleum contaminant
		1-Tridecyn-4-Ol	1600	J	74646-37-0	
		Acetic acid, 1-methylet	**3300**	R	108-21-4	Isopropyl acetate (solvent)
		Bicyclo[3 1 1]Hept-2-En	5000	J	4889-83-2	

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NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL088 0-3"	10-MAR-92	alpha.-Pinene (ACN)	430	J	80-56-8	Petroleum contaminant
		Camphene (DOT)	62	J	79-92-5	Petroleum contaminant
		Bicyclo[3.1.1]Heptane,	45	J	18172-67-3	Petroleum contaminant
		Bicyclo[2.2.1]Hept-2-E	48	J	464-17-5	
		Benzene, 1-methyl-3-(1	53	J	535-77-3	Petroleum contaminant
		Hexadecanoic Acid	2200	J	57-10-3	Naturally occuring fatty acid
		Sulfur, Mol. (S8)	1100	J	7704-34-9	
		Decanedioic acid, dide	1100	J	2432-89-5	Organic acid
		Undecane, 2,10-Dimethy	660	J	17301-27-8	Component of jet fuel
		Dodecane, 1-Iodo-	930	J	4292-19-7	Petroleum contaminant
		Tridecanal	1000	J	10486-19-8	
		Hexatriacontane	1600	J	630-06-8	Petroleum contaminant
		Decane, 3,8-Dimethyl-	1800	J	17312-55-9	Petroleum contaminant
		Stigmast-4-En-3-One	3000	J	1058-61-3	
		Acetic acid, 1-methylet	**3400**	R	108-21-4	Isopropyl acetate (solvent)
		.alpha.-Pinene (ACN)	930	J	80-56-8	Petroleum contaminant
SL089 0-3"	10-MAR-92	1,3,6-Octatriene, 3,7-	43	J	3779-61-1	Petroleum contaminant
		Camphene (DOT)	6.6	J	79-92-5	Petroleum contaminant
		Benzene, 1-methyl-3-(1	28	J	535-77-3	Petroleum contaminant
		Hexadecanoic Acid	1600	J	57-10-3	Naturally occuring fatty acid
		Hexatriacontane	950	J	630-06-8	Petroleum contaminant
		Hexatriacontane	970	J	630-06-8	Petroleum contaminant
		Decane, 6-Ethyl-2-Meth	520	J	62108-21-8	Petroleum contaminant
		Acetic acid, 1-methylet	**2300**	R	108-21-4	Isopropyl acetate (solvent)
		3-Heptanone, 2,4-dimeth	**2100**	R	18641-71-9	Substituted ketone
SL089 0-3" RE	10-MAR-92	.alpha -Pinene (ACN)	**29**	R	80-56-8	Petroleum contaminant
SL090 0-3"	11-MAR-92	2-Heptanone, 6-Methyl-	20	J	928-68-7	Substituted ketone
		Hexadecanoic Acid	**1200**	R	57-10-3	Naturally occuring fatty acid
		1-Decanol, 2-ethyl-	760	J	21078-65-9	Substituted phenol
		Octane, 2,4,6-trimethy	510	J	62016-37-9	Petroleum contaminant
		Decane, 3,8-Dimethyl-	500	J	17301-30-3	Petroleum contaminant
		Methane, Oxybis-	5.1	J	115-10-6	Petroleum contaminant
		Acetic acid, 1-methylet	**2700**	R	108-21-4	Isopropyl acetate (solvent)

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MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL091 0-3"	10-MAR-92	Hexadecanoic Acid	1100	J	57-10-3	Naturally occurring fatty acid
		Undecane, 3,8-dimethyl	340	J	17301-30-3	Component of jet fuel
		Acetic acid, 1-methylet	**2500**	R	108-21-4	Isopropyl acetate (solvent)
		.alpha.-Pinene (ACN)	740	J	80-56-3	Petroleum contaminant
SL092 0-3"	10-MAR-92	Methane, Oxybis-	9.9	J	115-10-6	Petroleum contaminant
		Hexadecanoic Acid	1300	J	57-10-3	Naturally occurring fatty acid
		Ether, Heptyl Hexyl	1000	J	7289-40-9	
		Decane, 2,3,7-trimethy	450	J	62238-13-5	Petroleum contaminant
		Decane, 2,3,5-Trimethy	510	J	62238-11-3	Petroleum contaminant
		Decane, 2,3,7-trimethy	840	J	62238-13-5	Petroleum contaminant
		Octane, 2,4,6-trimethy	580	J	62016-37-9	Petroleum contaminant
		Acetic acid, 1-methylet	**2100**	R	108-21-4	Isopropyl acetate (solvent)
		.alpha.-Pinene (ACN)	600	J	80-56-8	Petroleum contaminant
SL093 0-3"	10-MAR-92	Hexadecanoic Acid	1300	J	57-10-3	Naturally occuring fatty acid
		Ether, Heptyl Hexyl	1100	J	7289-40-9	
		Decane, 2,3,7-trimethy	890	J	62238-13-5	Petroleum contaminant
		Decane, 2,3,7-trimethy	700	J	62238-13-5	Petroleum contaminant
		Dodecane, 1-Iodo-	630	J	4292-19-7	Petroleum contaminant
		Decane, 2,3,7-trimethy	760	J	62238-13-5	Petroleum contaminant
		Undecane, 3,8-dimethyl	710	J	17301-30-3	Component of jet fuel
		Decane, 3,8-Dimethyl-	580	J	17301-30-3	Petroleum contaminant
		Acetic acid, 1-methylet	**2400**	R	108-21-4	Isopropyl acetate (solvent)
		Hydroperoxide, 1,1-Dime	**36000**	R	75-91-2	
SL094 0-3"	10-MAR-92	Formic acid (DOT)	7.1	J	64-18-6	Organic acid
		Hexadecanoic Acid	590	J	57-10-3	Naturally occuring fatty acid
		3-Octadecyne	300	J	61886-64-4	Petroleum contaminant
		Undecane, 3,8-dimethyl	450	J	17301-30-3	Component of jet fuel
		Acetic acid, 1-methylet	**2200**	R	108-21-4	Isopropyl acetate (solvent)
		3-Heptanone, 2,4-dimeth	1100	J	18641-71-9	Substituted ketone

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TENTATIVELY IDENTIFIED COMPOUNDS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL095 0-3'	11-MAR-92	1,2-Ethanediol, monoac	970	J	542-59-6	
		1,2-Ethanediol, monoac	780	J	542-59-6	
		Hexadecanoic Acid	710	J	57-10-3	Naturally occurring fatty acid
		1-Decanol, 2-ethyl-	360	J	21078-65-9	Substituted phenol
		Benzo[j]fluoranthene	500	J	205-82-3	Petroleum contaminant
		Decane, 6-Ethyl-2-Meth	380	J	62108-21-8	Petroleum contaminant
		Acetic acid, 1-methylet	**1700**	R	108-21-4	Isopropyl acetate (solvent)
		2-Hexanone, 6-(acetylox	320	J	4305-26-4	Substituted ketone
SL096 0-3'	08-MAR-92	Cyclopentasiloxane, De	**330**	R	541-02-6	Column degradation product
		1,3,6-Octatriene, 3,7-	8.9	J	3779-61-1	Petroleum contaminant
		Limonene	6.5	J	138-86-3	Petroleum contaminant
		Ether, Heptyl Hexyl	480	J	7289-40-9	
		Octane, 2,4,6-trimethy	480	J	62016-37-9	Petroleum contaminant
		Octane, 2,4,6-trimethy	540	J	62016-37-9	Petroleum contaminant
		Cyclotrisiloxane, hexam	560	J	541-05-9	Column degradation product
		Acetic acid, 1-methylet	**2700**	R	108-21-4	Isopropyl acetate (solvent)
SL096 2-4	08-MAR-92	Hexatriacontane	1500	J	630-06-8	Petroleum contaminant
		Decane, 3-Bromo-	1100	J	30571-71-2	Petroleum contaminant
		Iron, Tricarbonyl[N-(P	1200	J	74764-11-7	
		Heptadecane	860	J	629-78-7	Petroleum contaminant
		Acetic acid, 1-methylet	**2300**	R	108-21-4	Isopropyl acetate (solvent)

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NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
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Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL27001 0-3"	08-MAR-92	Cyclopentasiloxane, De	**290**	R	541-02-6	Column degradation product
		Acetic acid, 1-methylet	**2300**	R	108-21-4	Isopropyl acetate (solvent)
		2-Cyclohexen-1-One	410	J	930-68-7	
SL27001 2-4'	08-MAR-92	1,2-Ethanediol, monoac	2200	J	542-59-6	
		Cyclopentasiloxane, De	**290**	R	541-02-6	Column degradation product
		1,3,5-Cycloheptatriene	600	J	544-25-2	Petroleum contaminant
		Acetic acid, 1-methylet	**2000**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclotrisiloxane, hexam	**500**	R	541-05-9	Column degradation product
		3-Heptanone, 2,4-dimeth	**1800**	R	18641-71-9	Substituted ketone
SL27002 0-3"	08-MAR-92	Hexadecanoic Acid	**650**	R	57-10-3	Naturally occuring fatty acid
		Cyclododecane	610	J	294-62-2	Petroleum contaminant
		Acetic acid, 1-methylet	**1900**	R	108-21-4	Isopropyl acetate (solvent)
		3-Heptanone, 2,4-dimeth	**1900**	R	18641-71-9	Substituted ketone
SL27002 2-4'	08-MAR-92	1,2-Ethanediol, monoac	2700	J	542-59-6	
		Cyclotrisiloxane, hexam	500	J	541-05-9	Column degradation product
		Acetic acid, 1-methylet	**2100**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclotrisiloxane, hexam	**490**	R	541-05-9	Column degradation product
		Ethanone, 1-Oxiranyl-	450	J	4401-11-0	Substituted ketone
		3-Heptanone, 2,4-dimeth	**1800**	R	18641-71-9	Substituted ketone
SL27003 0-3"	08-MAR-92	1,2-Ethanediol, monoac	3000	J	542-59-6	
		Hexadecanoic Acid	850	J	57-10-3	Naturally occuring fatty acid
		1,1'-Biphenyl, 2,2',3,	350	J	38380-04-0	
		Acetic acid, 1-methylet	**2300**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclotrisiloxane, hexam	470	J	541-05-9	Column degradation product
		3-Heptanone, 2,4-dimeth	**2500**	R	18641-71-9	Substituted ketone
SL27003 2-4'	08-MAR-92	3-Hexanone, 2-Methyl-	190	J	7379-12-6	Substituted ketone
		Hexadecanoic Acid	**420**	R	57-10-3	Naturally occuring fatty acid
		Acetic acid, 1-methylet	**2200**	R	108-21-4	Isopropyl acetate (solvent)
		Heptane, 2,3-dimethyl-	**300**	R	3074-71-3	Petroleum contaminant

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NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
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SL27004 0-3"	08-MAR-92	Cyclotrisloxane, hexam	**410**	R	541-05-9	Column degradation product
		Acetic acid, 1-methylet	**2400**	R	108-21-4	Isopropyl acetate (solvent)
SL27004 2-4'	08-MAR-92	Hexadecanoic Acid	**810**	R	57-10-3	Naturally occuring fatty acid
		Acetic acid, 1-methylet	**2300**	R	108-21-4	Isopropyl acetate (solvent)
		Heptane, 2,3-dimethyl-	**280**	R	3074-71-3	Petroleum contaminant
		2-Hexanone, 6-(acetylox	**480**	R	4305-26-4	Substituted ketone
		3-Heptanone, 2,4-dimeth	170	J	18641-71-9	Substituted ketone
SL27005 0-3"	08-MAR-92	1,2-Ethanediol, monoac	2900	J	542-59-3	
		Hexanedioic acid, mono	3700	J	4337-65-9	Organic acid
		Arsenous acid, Tris(Tri	600	J	55429-29-3	
		Acetic acid, 1-methylet	**2300**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclotrisloxane, hexam	**540**	R	541-05-9	Column degradation product
SL27005 2-4'	08-MAR-92	Hexadecanoic Acid	**1200**	R	57-10-3	Naturally occuring fatty acid
		Hexanedioic acid, mono	890	J	4337-65-9	
		Acetic acid, 1-methylet	**2500**	R	108-21-4	Isopropyl acetate (solvent)
		Heptane, 2,3-dimethyl-	**310**	R	3074-71-3	Petroleum contaminant
		2-Hexanone, 6-(acetylox	**510**	R	4305-26-4	Substituted ketone
		3-Heptanone, 2,4-dimeth	**1700**	R	18641-71-9	Substituted ketone
		3-Heptanone, 2,4-dimeth	560	J	18641-71-9	Substituted ketone
SL27006 0-3"	08-MAR-92	1,2-Ethanediol, monoac	640	J	542-59-6	
		Hexadecanoic Acid	840	J	57-10-3	Naturally occuring fatty acid
		Hexanedioic acid, mono	4100	J	4337-65-9	Organic acid
		Acetic acid, 1-methylet	**2500**	R	108-21-4	Isopropyl acetate (solvent)
		3-Heptanone, 2,4-dimeth	**1900**	R	18641-71-9	Substituted ketone
SL27006 2-4'	08-MAR-92	1,2-Ethanediol, monoac	3000	J	542-79-6	
		Hexanedioic acid, dioc	25000	J	123-79-5	Organic acid
		Cyclotrisloxane, hexam	**460**	R	541-05-9	Column degradation product
		Acetic acid, 1-methylet	**2200**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclotrisloxane, hexam	**520**	R	541-05-9	Column degradation product

Notes:
CAS = Chemical Abstracts Service. CAS numbers not available for all listed compounds.
"J" signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).
All rejected concentrations are shaded.

APPENDIX C-7
SUMMARY OF SOIL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED COMPOUNDS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth	Date Taken	Compound(s) Identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SL27007 0-3"	08-MAR-92	1,2-Ethanediol, monoac	1800	J	542-79-6	
		Hexadecanoic Acid	560	J	57-10-3	Naturally occuring fatty acid
		Cyclotrisloxane, hexam	**420**	R	541-05-9	Column degradation product
		Acetic acid, 1-methylet	**1700**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclotrisloxane, hexam	**540**	R	541-05-9	Column degradation product
SL27007 2-4'	08-MAR-92	1,2-Ethanediol, monoac	2100	J	542-79-6	
		Acetic acid, 1-methylet	**2200**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclotrisloxane, hexam	**490**	R	541-05-9	Column degradation product
		7-Oxabicyclo[4 1.0]Hept	**490**	R	286-20-4	
		Hexane, 2-bromo-	540	J	3377-86-4	Petroleum contaminant
		3-Heptanone, 2,4-dimeth	**2200**	R	18641-71-9	Substituted ketone
SL27008 0-3"	08-MAR-92	1,2-Ethanediol, monoac	2900	J	542-59-6	
		Acetic acid, 1-methylet	**2100**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclotrisloxane, hexam	**520**	R	541-05-9	Column degradation product
		3-Heptanone, 2,4-dimeth	**1900**	R	18641-71-9	Substituted ketone

Notes:
CAS = Chemical Abstracts Service. CAS numbers not available for all listed compounds.
"J" signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP)
All rejected concentrations are shaded.

Appendix D-1
Volatile Organic Sampling, Field Quality Control

APPENDIX D-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/Depth	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,2-Dichloro-ethane	1,2-Dichloro-ethene	1,2-Dichloro-propane	2-Butanone	2-Hexanone
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*24 3 x 10E6 ug/kg*	*3 2 x 10E3 ug/kg*	*11 2 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*1 1 x 10E3 ug/kg*	*7 0 x 10E3 ug/kg*	*2 7 x 10E6 ug/kg*	*9.4 x 10E3 ug/kg*	*13 5 x 10E6 ug/kg*	---
EB	<5	<5	<5	<5	<5	<5	<5	<5	**8** J	<10
EB001	<5	<5	<5	<5	<5	<5	<5	<5	**15** J	<10
SLEB002	<5	<5	<5	<5	<5	<5	<5	<5	**18**	<10
SLEB003	<5	<5	<5	<5	<5	<5	<5	<5	**17**	<10
SLEB004	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
EB005	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
SLEB006	<5	<5	<5	<5	<5	<5	<5	<5	**16** J	<10
SLEB007	<5	<5	<5	<5	<5	<5	<5	<5	**10** R	<10
SLEB008	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
SLFB001	<5	<5	<5	<5	<5	<5	<5	<5	**16** J	<10

Notes.
1 All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL
2 The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign
"J" Signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).

APPENDIX D-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/Depth	4-Methyl-2-Pentanone	Acetone	Benzene	Bromoform	Bromomethane	Carbon Disulfide	Carbon tetrachloride	Chloro-benzene	Chloro-ethane	Chloroform
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*13.5 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*22.1 x 10E3 ug/kg*	*81.0 x 10E3 ug/kg*	*378.0 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*4.9 x 10E3 ug/kg*	*5.4 x 10E6 ug/kg*	---	*2.7 x 10E6 ug/kg*
EB	<10	<21 UJ	<5	<5	<10	<5	<5	<5	<10	<5
EB001	<10	<14	<5	<5	<10	<5	<5	**14**	<10	<5
SLEB002	<10	<10	<5	<5	<10	<5	<5	**14**	<10	<5
SLEB003	<10	<24	<5	<5	<10	<5	<5	**16**	<10	<5
SLEB004	<10	<34	<5	<5	<10	<5	<5	**7**	<10	<5
EB005	<10	<12	<5	<5	<10	<5	<5	**4 J**	<10	<5
SLEB006	<10	<30	<5	<5	<10	<5	<5	**10**	<10	<5
SLEB007	<10	<19	<5	<5	<10	<5	<5	**9**	<10	<5
SLEB008	<10	<10	<5	<5	<10	<5	<5	**9**	<10	<5
SLFB001	<10	<15	<5	<5	<10	<5	<5	**15**	<10	<5

Notes:
1 All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
2 The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991
(d) Sample was collected for determination of fence boundary in February 1992.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign
"J" Signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).

APPENDIX D-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/Depth	Chloro-methane	Dibromo-chloromethane	Dichloro-bromomethane	Ethyl acetate	Ethylbenzene	Methylene chloride	Styrene	Tetrachloro-ethene	Toluene	Trichloro-ethene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*49.2 x 10E3 ug/kg*	*7 6 x 10E3 ug/kg*	*4 9 x 10E3 ug/kg*	*243.0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*85 3 x 10E3 ug/kg*	*21.3 x 10E3 ug/kg*	*12.5 x 10E3 ug/kg*	*54 0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*
EB	<10	<5	<5	<50	<5	**15**	<5	<5	<5	<5
EB001	<10	<5	<5	<50	<5	<5	<5	<5	<5	<5
SLEB002	<10	<5	<5	<50	<5	<10	<5	<5	<5	<5
SLEB003	<10	<5	<5	<50	<5	<12	<5	<5	<5	<5
SLEB004	<10	<5	<5	<50	<5	<14	<5	<5	<5	<5
EB005	<10	<5	<5	<50	<5	<12	<5	<5	<5	<5
SLEB006	<10	<5	<5	<50	<5	**53**	<5	<5	<5	<5
SLEB007	<10	<5	<5	<50	<5	<25	<5	<5	<5	<5
SLEB008	<10	<5	<5	<50	<5	<5	<5	<5	<5	<5
SLFB001	<10	<5	<5	<50	<5	<5	<5	<5	<5	<5

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL
2. The shaded values represent positive detections of the particular compound
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
"J" Signifies the compound was detected at an estimated concentration.
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APPENDIX D-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/Depth	Vinyl Acetate	Vinyl chloride	Xylenes (total)	cis-1,3-Dichloro-propene	n-Butyl acetate	trans-1,3-Dichloro-propene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*270.0 x 10E6 ug/kg*	*0.3 x 10E3 ug/kg*	*540.0 x 10E6 ug/kg*	---	---	---
EB	<10	<10	<5	<5	<50	<5
EB001	<10	<10	<5	<5	<50	<5
SLEB002	<10	<10	<5	<5	<50	<5
SLEB003	<10	<10	<5	<5	<50	<5
SLEB004	<10	<10	<5	<5	<50	<5
EB005	<10	<10	<5	<5	<50	<5
SLEB006	<10	<10	<5	<5	<50	<5
SLEB007	<10	<10	<5	<5	<50	<5
SLEB008	<10	<10	<5	<5	<50	<5
SLFB001	<10	<10	<5	<5	<50	<5

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2 The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
"J" Signifies the compound was detected at an estimated concentration.
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APPENDIX D-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS: TRIP BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/Depth	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,2-Dichloro-ethane	1,2-Dichloro-ethene	1,2-Dichloro-propane	2-Butanone	2-Hexanone
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*24.3 x 10E6 ug/kg*	*3.2 x 10E3 ug/kg*	*11.2 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*1.1 x 10E3 ug/kg*	*7.0 x 10E3 ug/kg*	*2.7 x 10E6 ug/kg*	*9.4 x 10E3 ug/kg*	*13.5 x 10E6 ug/kg*	---
TB	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
TB001	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
SLTB002	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
SLTB003	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
SLTB004	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
SLTB005	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
SLTB006	<5	<5	<5	<5	<5	<5	<5	<5	**10** R	<10
SLTB007	<5	<5	<5	<5	<5	<5	<5	<5	**10** R	<10
TB007	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
SLTB008	<5	<5	<5	<5	<5	<5	<5	<5	**10** R	<10
SLTB009	<5	<5	<5	<5	<5	<5	<5	<5	**10** R	<10
SLTB010	<5	<5	<5	<5	<5	<5	<5	<5	**10** R	<10
SLTB011	<5	<5	<5	<5	<5	<5	<5	<5	**10** R	<10
SLTB012	<5	<5	<5	<5	<5	<5	<5	<5	**10** R	<10
SLTB013	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL
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(a) Florida Department of Environmental Regulation Chapter 17 775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident
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APPENDIX D-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS: TRIP BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/Depth	4-Methyl-2-Pentanone	Acetone	Benzene	Bromoform	Bromomethane	Carbon Disulfide	Carbon tetrachloride	Chloro-benzene	Chloro-ethane	Chloroform
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*13.5 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*22.1 x 10E3 ug/kg*	*81 0 x 10E3 ug/kg*	*378 0 x 10E3 ug/kg*	*27 0 x 10E6 ug/kg*	*4.9 x 10E3 ug/kg*	*5 4 x 10E6 ug/kg*	---	*2.7 x 10E6 ug/kg*
TB	<10	<11 UJ	<5	<5	<10	<5	<5	<5	<10	<5
TB001	<10	<10	<5	<5	<10	<5	<5	<5	<10	<5
SLTB002	<10	<10	<5	<5	<10	<5	<5	<5	<10	<5
SLTB003	<10	<10	<5	<5	<10	<5	<5	<5	<10	<5
SLTB004	<10	<10	<5	<5	<10	<5	<5	<5	<10	<5
SLTB005	<10	<16	<5	<5	<10	<5	<5	<5	<10	<5
SLTB006	<10	**12** J	<5	<5	<10	<5	<5	<5	<10	<5
SLTB007	<10	**5** J	<5	<5	<10	<5	<5	<5	<10	<5
TB007	<10	<10	<5	<5	<10	<5	<5	<5	<10	<5
SLTB008	<10	**9** J	<5	<5	<10	<5	<5	<5	<10	<5
SLTB009	<10	**7** J	<5	<5	<10	<5	<5	<5	<10	<5
SLTB010	<10	**4** J	<5	<5	<10	<5	<5	<5	<10	<5
SLTB011	<10	<10	<5	<5	<10	<5	<5	<5	<10	<5
SLTB012	<10	**28**	<5	<5	<10	<5	<5	<5	<10	<5
SLTB013	<10	<10	<5	<5	<10	<5	<5	<5	<10	<5

Notes
1 All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL
2 The shaded values represent positive detections of the particular compound
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
"J" Signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).

APPENDIX D-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS: TRIP BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/Depth	Chloro-methane	Dibromo-chloromethane	Dichloro-bromomethane	Ethyl acetate	Ethylbenzene	Methylene chloride	Styrene	Tetrachloro-ethene	Toluene	Trichloro-ethene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Re-mediation Goal(b)	*49.2 x 10E3 ug/kg*	*7.6 x 10E3 ug/kg*	*4 9 x 10E3 ug/kg*	*243 0 x 10E6 ug/kg*	*27.0 x 10E6 ug/kg*	*85.3 x 10E3 ug/kg*	*21 3 x 10E3 ug/kg*	*12 5 x 10E3 ug/kg*	*54 0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*
TB	<10	<5	<5	<50	<5	12	<5	<5	<5	<5
TB001	<10	<5	<5	<50	<5	<5	<5	<5	<5	<5
SLTB002	<10	<5	<5	<50	<5	<12	<5	<5	<5	<5
SLTB003	<10	<5	<5	<50	<5	<11	<5	<5	<5	<5
SLTB004	<10	<5	<5	<50	<5	<12	<5	<5	<5	<5
SLTB005	<10	<5	<5	<50	<5	<14	<5	<5	<5	<5
SLTB006	<10	<5	<5	<50	<5	<44	<5	<5	<5	<5
SLTB007	<10	<5	<5	<50	<5	<6	<5	<5	<5	<5
TB007	<10	<5	<5	<50	<5	<6	<5	<5	<5	<5
SLTB008	<10	<5	<5	<50	<5	<42	<5	<5	<5	<5
SLTB009	<10	<5	<5	<50	<5	<43	<5	<5	<5	<5
SLTB010	<10	<5	<5	<50	<5	<7	<5	<5	<5	<5
SLTB011	<10	<5	<5	<50	<5	<6	<5	<5	<5	<5
SLTB012	<10	<5	<5	<50	<5	<28	<5	<5	<5	<5
SLTB013	<10	<5	<5	<50	<5	<5	<5	<5	<5	<5

Notes.
1 All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL
2 The shaded values represent positive detections of the particular compound
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U.S Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
(c) Sample was taken during health and safety screening in December 1991.
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"UJ" Signifies the quantitation limit was estimated and the compound was not detected The estimated limit follows the '<' sign
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"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).

APPENDIX D-1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS: TRIP BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/Depth	Vinyl Acetate	Vinyl chloride	Xylenes (total)	cis-1,3-Dichloro-propene	n-Butyl acetate	trans-1,3-Dichloro-propene
FDER Soil Action Level(a)	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*100 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*	*50 ug/kg Total VOA*
EPA Prelim. Remediation Goal(b)	*270 0 x 10E6 ug/kg*	*0.3 x 10E3 ug/kg*	*540.0 x 10E6 ug/kg*	---	---	---
TB	<10	<10	<5	<5	<50	<5
TB001	<10	<10	<5	<5	<50	<5
SLTB002	<10	<10	<5	<5	<50	<5
SLTB003	<10	<10	<5	<5	<50	<5
SLTB004	<10	<10	<5	<5	<50	<5
SLTB005	<10	<10	<5	<5	<50	<5
SLTB006	<10	<10	<5	<5	<50	<5
SLTB007	<10	<10	<5	<5	<50	<5
TB007	<10	<10	<5	<5	<50	<5
SLTB008	<10	<10	<5	<5	<50	<5
SLTB009	<10	<10	<5	<5	<50	<5
SLTB010	<10	<10	<5	<5	<50	<5
SLTB011	<10	<10	<5	<5	<50	<5
SLTB012	<10	<10	<5	<5	<50	<5
SLTB013	<10	<10	<5	<5	<50	<5

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound.
(a) Florida Department of Environmental Regulation Chapter 17.775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992.
(b) U S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident
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Appendix D-2
Semivolatile Organic Sampling, Field Quality Control

APPENDIX D-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2,4-Tri-chlorobenzene	1,2-Di-chlorobenzene	1,3-Di-chlorobenzene	1,4-Di-chlorobenzene	2,4,5-Tri-chlorophenol	2,4,6-Tri-chlorophenol	2,4-Di-chlorophenol	2,4-Di-methylphenol	2,4-Di-nitrophenol	2,4-Dinitro-toluene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	*2.7 x 10E6 ug/kg*	*24.3 x 10E6 ug/kg*	---	*26 7 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*	*58.2 x 10E3 ug/kg*	*810.0 x 10E3 ug/kg*	*5 4 x 10E6 ug/kg*	*540 0 x 10E3 ug/kg*	*0.9 x 10E3 ug/kg*
EB	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
SLEB001	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
SLEB002	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
SLEB003	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
SLEB004	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
EB005	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
SLEB006	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
SLEB006RE	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
SLEB007	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
SLEB008	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10
SLFB001	<10	<10	<10	<10	<50	<10	<10	<10	<50	<10

Notes:
1. All results are reported in micrograms per kilogram (ug/kg) The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
2. The shaded values represent positive detections of the particular compound
(a) Florida Department of Environmental Regulation Chapter 17 775 Florida Administrative Code (FAC), Petroleum Contaminated Soils, May 1992
(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident
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APPENDIX D-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	2,6-Dinitro-toluene	2-Chloro-naphthalene	2-Chloro-phenol	2-Methyl-naphthalene	2-Methyl-phenol	2-Nitroaniline	2-Nitro-phenol	3,3'-Dichloro-benzidine	3-Nitroaniline	4,6-Dinitro-2-Methyl-phenol
FDER Soil Action Level(a)	---	*6000 ug/kg Total PAH*	---	*6000 ug/kg Total PAH*	---	---	---	---	---	---
EPA Prelim. Remediation Goal(b)	*0.94 x 10E3 ug/kg*	*21.6 x 10E6 ug/kg*	*1.35 x 10E6 ug/kg*	---	*13.5 x 10E6 ug/kg*	---	---	*1.4 x 10E3 ug/kg*	---	---
EB	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
SLEB001	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
SLEB002	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
SLEB003	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
SLEB004	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
EB005	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
SLEB006	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
SLEB006RE	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
SLEB007	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
SLEB008	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50
SLFB001	<10	<10	<10	<10	<10	<50	<10	<20	<50	<50

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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(b) U.S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident
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"J" Signifies the compound was detected at an estimated concentration.
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APPENDIX D-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4-Bromo-phenyl-phenylether	4-Chloro 3-methyl-phenol	4-Chloro-aniline	4-Chloro-phenyl-phenylether	4-Methyl-phenol	4-Nitroaniline	4-Nitro-phenol	Acenaphthene	Acenaphthylene	Anthracene
FDER Soil Action Level(a)	---	---	---	---	---	---	---	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*
EPA Prelim. Remediation Goal(b)	---	---	*1 08 x 10E6 ug/kg*	---	*13 5 x 10E6 ug/kg*	---	---	*16.2 x 10E6 ug/kg*	---	*81 0 x 10E6 ug/kg*
EB	<10	<10	<10	<10	<10	<50	<50 UJ	<10	<10	<10
SLEB001	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10
SLEB002	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10
SLEB003	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10
SLEB004	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10
EB005	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10
SLEB006	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10
SLEB006RE	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10
SLEB007	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10
SLEB008	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10
SLFB001	<10	<10	<10	<10	<10	<50	<50	<10	<10	<10

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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APPENDIX D-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Benzoic acid	Benzyl Alcohol	Butylbenzyl-phthalate	Chrysene	Di-n-butyl-phthalate
FDER Soil Action Level(a)	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	---	---	---	*6000 ug/kg Total PAH*	---
EPA Prelim. Remediation Goal(b)	*1.1 x 10E3 ug/kg*	*0.11 x 10E3 ug/kg*	*1.1 x 10E3 ug/kg*	---	*1.1 x 10E3 ug/kg*	*1 08 x 10E9 ug/kg*	*81 0 x 10E6 ug/kg*	*54.0 x 10E6 ug/kg*	*11.0 x 10E3 ug/kg*	*27.0 x 10E6 ug/kg*
EB	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10
SLEB001	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10
SLEB002	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10
SLEB003	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10
SLEB004	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10
EB005	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10
SLEB006	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10
SLEB006RE	<10	<10	<10	<10	2 J	<50	<10	<10	<10	<10
SLEB007	<10	<10	<10	<10	<10	<50	<10	<10	2 J	<10
SLEB008	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10
SLFB001	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10

Notes·
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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APPENDIX D-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Di-n-octyl-phthalate	Dibenz (a,h) anthracene	Dibenzofuran	Diethyl-phthalate	Dimethyl-phthalate	Fluoranthene	Fluorene	Hexachloro-benzene	Hexachloro-butadiene	Hexachloro-cyclopenta-diene
FDER Soil Action Level(a)	---	*6000 ug/kg Total PAH*	---	---	---	*6000 ug/kg Total PAH*	*6000 ug/kg Total PAH*	---	---	---
EPA Prelim. Remediation Goal(b)	*5 4 x 10E6 ug/kg*	*1.1 x 10E3 ug/kg*	---	*216.0 x 10E6 ug/kg*	*270.0 x 10E6 ug/kg*	*10 8 x 10E6 ug/kg*	*10.8 x 10E6 ug/kg*	*0 40 x 10E3 ug/kg*	*8.2 x 10E3 ug/kg*	*1 89 x 10E6 ug/kg*
EB	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SLEB001	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SLEB002	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SLEB003	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SLEB004	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
EB005	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SLEB006	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SLEB006RE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SLEB007	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SLEB008	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SLFB001	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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APPENDIX D-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Indeno (1,2,3-cd) pyrene	Isophorone	N-Nitroso-di-n-propyl-amine	N-Nitroso-diphenyl-amine (1)	Naphthalene	Nitrobenzene	Penta-chlorophenol	Phenanthrene	Phenol	Pyrene
FDER Soil Action Level(a)	*6000 ug/kg Total PAH*	---	---	---	*6000 ug/kg Total PAH*	---	---	*6000 ug/kg Total PAH*	---	*6000 ug/kg Total PAH*
EPA Prelim. Remediation Goal(b)	*1.1 x 10E3 ug/kg*	*156.1 x 10E3 ug/kg*	*0.09 x 10E3 ug/kg*	---	*1 08 x 10E6 ug/kg*	*135.0 x 10E3 ug/kg*	*5 3 x 10E3 ug/kg*	---	*162 0 x 10E6 ug/kg*	*8.1 x 10E6 ug/kg*
EB	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
SLEB001	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
SLEB002	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
SLEB003	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
SLEB004	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
EB005	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
SLEB006	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
SLEB006RE	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
SLEB007	<10	<10	<10	<10	<10	<10	<50	<10	<10	3 J
SLEB008	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
SLFB001	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL) The number following the '<' sign is the actual CRQL or DL.
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APPENDIX D-2
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE COMPOUNDS AND POLYNUCLEAR AROMATIC HYDROCARBONS:
EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	bis(2-Chloro-ethoxy) methane	bis(2-Chloro-ethyl) ether	bis(2-Chloro-isopropyl) ether	bis(2-Ethyl-hexyl) phthalate	Hexachloro-ethane
FDER Soil Action Level(a)	---	---	---	---	---
EPA Prelim. Re-mediation Goal(b)	---	*0.58 x 10E3 ug/kg*	*9.1 x 10E3 ug/kg*	*45.7 x 10E3 ug/kg*	*45.7 x 10E3 ug/kg*
EB	<10	<10	<10	<10	<10
SLEB001	<10	<10	<10	<10	<10
SLEB002	<10	<10	<10	2 J	<10
SLEB003	<10	<10	<10	3 J	<10
SLEB004	<10	<10	<10	4 J	<10
EB005	<10	<10	<10	5 J	<10
SLEB006	<10	<10	<10	16	<10
SLEB006RE	<10	<10	<10	8 J	<10
SLEB007	<10	<10	<10	<10	<10
SLEB008	<10	<10	<10	<10	<10
SLFB001	<10	<10	<10	<10	<10

Notes:
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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Appendix D-3
Pesticides/PCB, Field Quality Control

APPENDIX D-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254
EPA Prelim. Remediation Goal(a)	*2700 ug/kg*	*1900 ug/kg*	*1900 ug/kg*	*38 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*	*83 ug/kg*
EPA August 1990, PCBs (b)	---	---	---	---	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*	*10000 ug/kg*
EB	<0 1	<0 04	<0 1	<0 04	<0 5 UJ	<0 5 UJ	<0 5 UJ	<0 5 UJ	<0 5 UJ	<0 5 UJ
SLEB001	<0 1	<0 04	<0 1	<0 04	<0 5	<1 2	<1 2	<0 5	<0 2	<0 2
SLEB003	<0 1	<0 04	<0 1	<0.04	<0 5	<1 2	<1.2	<0 5	<0.2	<0.2
EB005	<0 1	<0 04	<0 1	<0 04	<0 5	<1 2	<1 2	<0 5	<0 2	<0 2
SLEB007	<0 1	<0 04	<0 1	<0 04	<0 5	<1 2	<1 2	<0 5	<0 2	<0 2
SLEB008	<0 1	<0 04	<0 1	<0 04	<0 5	<1 2	<1.2	<0 5	<0 2	<0 2
SLFB001	<0 1	<0 04	<0 1	<0 04	<0 5	<1 2	<1 2	<0 5	<0 2	<0 2

Notes
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2 The shaded values represent positive detections of the particular compound
(a) U S Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991 Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident
(b) Environmental Protection Agency (EPA), "Guidance on Remedial Actions for Superfund Sites with PCB Contamination," August 1990
(c) Sample was taken during health and safety screening in December 1991.
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APPENDIX D-3
SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aroclor-1260	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
EPA Prelim. Remediation Goal(a)	*83 ug/kg*	*40 ug/kg*	---	*13500 ug/kg*	---	*81000 ug/kg*	---	---	---	---
EPA August 1990, PCBs (b)	*10000 ug/kg*	---	---	---	---	---	---	---	---	---
EB	<0 5 UJ	<0.02	<0.05	<0 04	<0 1	<0 06	<0 1	<0 03	<0 05	<0 5
SLEB001	<0 2	<0.02	<0 05	<0 04	<0 1	<0 06	<0 1	<0 03	<0 05	<0 5
SLEB003	<0 2	<0.02	<0 05	<0.04	<0.1	<0.06	<0.1	<0.03	<0 05	<0 5
EB005	<0 2	<0 02	<0 05	<0 04	<0 1	<0 06	<0 1	<0 03	<0 05	<0 5
SLEB007	<0 2	<0 02	<0 05	<0 04	<0 1	<0 06	<0 1	<0 03	<0 05	<0 5
SLEB008	<0 2	<0 02	<0 05	<0 04	<0 1	<0 06	<0 1	<0 03	<0 05	<0 5
SLFB001	<0 2	<0 02	<0 05	<0 04	<0 1	<0 06	<0 1	<0 03	<0 05	<0 5

Notes
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SUMMARY OF SOIL ANALYTICAL RESULTS
PESTICIDES AND POLYCHLORINATED BIPHENYLS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
EPA Prelim. Remediation Goal(a)	---	---	---	---	---	---	---
EPA August 1990, PCBs (b)	---	---	---	---	---	---	---
EB	<1	<0 03	<0 05	<0 05	<0 05	<0 04	<0 05
SLEB001	<1	<0 03	<0 05	<0 05	<0 05	<0 04	<0 05
SLEB003	<1	<0 03	<0.05	<0.05	<0 05	<0 04	<0 05
EB005	<1	<0 03	<0 05	<0 05	<0 05	<0 04	<0 05
SLEB007	<1	<0 03	<0 05	<0 05	<0 05	<0 04	<0 05
SLEB008	<1	<0 03	<0 05	<0 05	<0 05	<0 04	<0 05
SLFB001	<1	<0 03	<0 05	<0 05	<0 05	<0 04	<0 05

Notes
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Appendix D-4
Inorganics Compounds, Field Quality Control

APPENDIX D-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS, TARGET ANALYTE LIST: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper
FDER Soil Action Level(a)	---	---	*55 mg/kg*	*2750 mg/kg*	---	*55 mg/kg*	---	*275 mg/kg*	---	---
EPA Prelim. Remediation Goal(b)	---	*108 mg/kg*	*81 mg/kg*	*13500 mg/kg*	*0.15 mg/kg*	*135 mg/kg*	---	*1350 mg/kg*	---	*9990 mg/kg*
EB	**64.6** J	<40	<1 9 UJ	<1 UJ	<0 1	<1 6	<1190 UJ	**4.2** J	<5 1	<1 4
SLEB001	<12 5	<15 2	<0 6	<0 2	<0 4	<1 6	<77	<3 2	<5 1	<0 9
SLEB002	<12 5	<15 2	<0 6	<0 43	<0 4	<1 6	<83 6	<3 2	<5 1	**0.99** J
SLEB003	<12 5	<15 2	**0.8** J	<0 2	<0 4	<1 6	<96 9	<3 2	<5 1	<0 9
SLEB004	**16.3** J	<15 2	<0 6	<0 2	**0.69** J	<1 6	<95 9	<3 2	<5 1	<0 9
EB005	**18.8** J	<15 2	<0 6	**0.42** J	**0.43** J	<1 6	<89 1	<3 2	<5 1	<0 9
SLEB006	**16.5** J	<15 2	<0 6	**0.42** J	**0.43** J	<1 6	<165	<3 2	<5 1	<0 9
SLEB007	<12 5	<15 2	<0 6	<0 2	<0 4	<1 6	<54 8	<3 2	<5 1	<0 9
SLEB008	**49.8** J	<15 2	<0 6	<0 2	**0.69** J	<1 6	**103** J	<3 2	<5 1	<0 9
SLFB001	<12 5	<15 2	<0 6	<0 2	<0 4	<1 6	<77 2	<3 2	<5 1	<0 9

Notes·
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(b) U S. Environmental Protection Agency, "Risk Assessment Guidance for Superfund," December 1991. Calculated by Part B methodology to pose cancer risk of 10-6 or Hazard Index of 1 to future site resident.
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APPENDIX D-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS, TARGET ANALYTE LIST: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver
FDER Soil Action Level(a)	---	---	*77 mg/kg*	---	---	*17 mg/kg*	---	---	*165 mg/kg*	*165 mg/kg*
EPA Prelim. Remediation Goal(b)	*5400 mg/kg*	---	---	---	*27000 mg/kg*	*81 mg/kg*	*5400 mg/kg*	---	*1350 mg/kg*	*1350 mg/kg*
EB		<28 4 UJ	<0 78	<36 4 UJ	<1 7 UJ	<0 16	<7	**241** J	<1 1	<2 3
SLEB001	<3 UJ	**6.3** J	**0.9** J	<16 8	<0 9	<0 1	<9 3	<250	<0 5	<1.1
SLEB002	<3 UJ	**23.8** J	**0.7** J	<16 8	<0 9	<0 1	<9 3	<250	<0 5	<1 1
SLEB003	<3 UJ	**5.4** J	<0 7	<16 8	<0 9	<0 1	<9 3	<250	<0 5	<1 1
SLEB004	<3	<13 4	<0 7	<16 8	<0 9	<0 1	<9 3	<250	<0 5	<1 1
EB005	<3	<7 8	**1.1** J	<16 8	<0 9	<0 1	<9 3	<250	<0 5	<1 1
SLEB006	<3	<7 6	**1.2** J	<16 8	<0 9	<0 1	<9 3	<250	<0 5	<1 1
SLEB007	<3	<2 6	<0 7	<16 8	<0 9	<0 1	<9 3	<250	<0 5	<1 1
SLEB008	<3	**25.5** J	**1.2** J	**37.1** J	<0 9	<0 1	<9 3	<250	<0 5	<1 1
SLFB001	<3 UJ	**7** J	**0.9** J	<16 8	<0 9	<0 1	<9 3	<250	<0 5	<1 1

Notes:
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APPENDIX D-4
SUMMARY OF SOIL ANALYTICAL RESULTS
INORGANICS, TARGET ANALYTE LIST: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Sodium	Thallium	Vanadium	Zinc
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	*19 mg/kg*	*1890 mg/kg*	*54000 mg/kg*
EB	<1210 UJ	<1 4	<2 7	<4 2 UJ
SLEB001	<45 6	<0 9	<1 2	<2
SLEB002	<43 3	<0 9	<1 2	<7 3
SLEB003	<20 6	<0 9	<1 2	<2
SLEB004	<95 4	<0 9	<1 2	**6** J
EB005	**266** J	<0 9	**1.4** J	**3.2** J
SLEB006	<102	<0 9	<1 2	**5.7** J
SLEB007	<73 8	<0 9	<1 2	**1.8** J
SLEB008	**66.4** J	<0 9	<1 2	<1 8
SLFB001	<25 8	<0 9	<1 2	<1 8

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Appendix D-5
Dioxins/Furans, Field Quality Control

APPENDIX D-5
SUMMARY OF SOIL ANALYTICAL RESULTS
DIOXINS AND FURANS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDF	2,3,7,8-TCDD	2,3,7,8-TCDF	OCDD	OCDF
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	---	*11 ug/kg*	*43 ug/kg*	*0.85 ug/kg*	*4 3 ug/kg*	*0.0043 ug/kg*	*0 043 ug/kg*	---	---
SLEB001	<0 15	<0 14	<0 15	<0 1	<0 18	<0 049	<0.043	<0 034	<0 61	<0 65
SLEB002	<0 17	<0 51	<0 48	<0 093	<0 18	<0 12	<0 036	<0 093	<0 94	<0 84
SLEB002	<0 69	<0 098	<0 22	<0 27	<0 32	<0.056	<0 12	<0 03	<1 5	<1 8
SLEB003	<0 12	<0 11	<0 11	<0 058	<0 11	<0 039	<0.041	<0 031	<0 39	<0 48
SLEB006	<0 28	<0 15	<0.2	<0 077	<0 15	<0 049	<0 029	<0 028	<0 93	<1 3
SLEB008	<0 23	<0 25	<0 2	<0 13	<0 14	<0 056	<0 062	<0 055	<0 89	<1 2
SLFB001	<0 13	<0 1	<0 13	<0 067	<0 14	<0 032	<0 037	<0 027	<0 47	<0 59

Notes
1. All results are reported in micrograms per kilogram (ug/kg). The less-than sign (<) signifies the compound was not detected at the contract required quantitation limit (CRQL) or at the detection limit (DL). The number following the '<' sign is the actual CRQL or DL.
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APPENDIX D-5
SUMMARY OF SOIL ANALYTICAL RESULTS
DIOXINS AND FURANS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	1,2,3,4,7,8,9-HpCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	1,2,3,7,8,9-HxCDF	2,3,4,6,7,8-HxCDF	2,3,4,7,8-PeCDF	HpCDDs (total)	HpCDFs (total)	HxCDDs (total)
FDER Soil Action Level(a)	---	---	---	---	---	---	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	*11 ug/kg*	*43 ug/kg*	*11 ug/kg*	*43 ug/kg*	*43 ug/kg*	*4.3 ug/kg*	---	---	---
SLEB001	<0 14	<0 15	<0 1	<0 15	<0 1	<0 1	<0 049	<0 15	<0 14	<0 15
SLEB002	<0 098	<0 48	<0 27	<0 48	<0 27	<0 093	<0 056	<0 69	<0 098	<0 22
SLEB002	<0 51	<0 22	<0 093	<0 22	<0 093	<0 27	<0 12	<0 17	<0 51	<0 48
SLEB003	<0 11	<0 11	<0 058	<0 11	<0 058	<0 058	<0 039	<0 12	<0 11	<0 11
SLEB006	<0 15	<0 2	<0 077	<0 2	<0 077	<0 077	<0 049	<0 28	<0 15	<0 2
SLEB008	<0 25	<0 2	<0 13	<0 2	<0.13	<0 13	<0 056	<0 23	<0 25	<0 2
SLFB001	<0 1	<0 13	<0 067	<0 13	<0 067	<0 067	<0 032	<0 13	<0 1	<0 13

Notes:
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APPENDIX D-5
SUMMARY OF SOIL ANALYTICAL RESULTS
DIOXINS AND FURANS: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	HxCDFs (total)	PeCDDs (total)	PeCDFs (total)	TCDDs (total)	TCDFs (total)
FDER Soil Action Level(a)	---	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	---	---	---	---
SLEB001	<0 1	<0.18	<0 049	<0 043	<0 034
SLEB002	<0 27	<0.32	<0.12	<0 12	<0 093
SLEB002	<0 093	<0 18	<0 056	<0 036	<0 03
SLEB003	<0 058	<0 11	<0 039	<0 041	<0 031
SLEB006	<0 077	<0 15	<0 049	<0 029	<0 028
SLEB008	<0 13	<0 14	<0 056	<0 062	<0 055
SLFB001	<0 067	<0 14	<0 032	<0 037	<0 027

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Appendix D-6
Radionuclides Field Quality Control

APPENDIX D-6
SUMMARY OF SOIL ANALYTICAL RESULTS
RADIONUCLIDES: EQUIPMENT BLANKS AND FIELD BLANKS
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID/ Depth (in feet)	Gross alpha	Gross beta	Radium-226	Radium-228
FDER Soil Action Level(a)	---	---	---	---
EPA Prelim. Remediation Goal(b)	---	---	*2.5 x 10E-5 pCi/g*	*7.7 pCi/g*
SLEB001	<0.1	<0.3	<0.3	<0.3
SLEB002	**0.1**	<0.3	<0.3	<0.3
SLEB003	<0 1	**0.1**	<0.3	**0.7**
SLEB004	**0.4**	<0.3	<0.3	**0.8**
SLEB006	**1.9**	**3.4**	<0 3	<0.3
SLEB007	**1.2**	**0.8**	**0.4**	<0 3
SLEB008	<0.1	<0.3	<0 3	<0.3
SLFB001	**0.4**	<0 3	**0.4**	<0 3

Notes:
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(c) Sample was taken during health and safety screening in December 1991.
(d) Sample was collected for determination of fence boundary in February 1992.
"UJ" Signifies the quantitation limit was estimated and the compound was not detected. The estimated limit follows the '<' sign.
"J" Signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).

Appendix D-7
Tentatively Identified Compounds, Field Quality Control

APPENDIX D-7
SUMMARY OF SOIL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED COMPOUNDS IN QUALITY CONTROL SAMPLES
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID No.	Date Taken	Compound(s) identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SLEB007	10-MAR-92	Cyclopentasiloxane, De	**9.6**	R	541-02-6	Column degradation product
		Cyclohexasiloxane, Dod	**10**	R	540-97-6	Column degradation product
		Cyclotrisloxane, hexam	**17**	R	541-05-9	Column degradation product
		Cyclotetrasiloxane, Oct	**28**	R	556-67-2	Column degradation product
SLEB008	11-MAR-92	Cyclohexasiloxane, Dod	**8.5**	R	540-97-6	Column degradation product
		Cyclotrisloxane, hexam	**16**	R	541-05-9	Column degradation product
		Cyclotetrasiloxane, Oct	**22**	R	556-67-2	Column degradation product
FB	17-DEC-91	Pentanedioic acid, Dimethyl	10	J	1119-40-0	Organic acid
TB	17-DEC-91	Silanol, Trimethyl-	**13**	R	1066-40-6	Substituted phenol
SL040 MS	17-DEC-91	3-Heptanone, 2,4-dimethyl-	270	J	18641-71-9	Substituted ketone
		Hexanedioic acid, dioctyl es	**8200**	R	123-79-5	Organic acid
SLRP001	05-FEB-92	3-Heptanone, 2,4-dimethyl-	300	J	18641-71-9	Substituted ketone
		Hexanedioic acid, dioctyl es	**7000**	R	123-79-5	Organic acid
		Hexane, 2-bromo-	290	J	3377-86-4	Petroleum contaminant
SLRP002 0-3"	08-MAR-92	Cyclopentasiloxane, De	**340**	R	541-02-6	Column degradation product
		Octane, 2,4,6-trimethy	440	J	62016-37-9	Petroleum contaminant
		Cyclotrisloxane, hexam	420	J	541-05-9	Column degradation product
		Acetic acid, 1-methylet	**1900**	R	108-21-4	Isopropyl acetate (solvent)
		Cyclotrisloxane, hexam	**520**	R	541-05-9	Column degradation product
		3-Heptanone, 2,4-dimeth	**1900**	R	18641-71-9	Substituted ketone
SLRP003 2-4'	08-MAR-92	1,3,6-Octatriene, 3,7-	7	J	3779-61-1	Petroleum contaminant
		Hexadecanoic Acid	1000	J	57-10-3	Naturally occuring fatty acid
		Acetic acid, 1-methylet	**2200**	R	108-21-4	Isopropyl acetate (solvent)

Notes:
CAS = Chemical Abstracts Service. CAS numbers not available for all listed compounds.
"J" signifies the compound was detected at an estimated concentration
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP)
All rejected concentrations are shaded

APPENDIX D-7
SUMMARY OF SOIL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED COMPOUNDS IN QUALITY CONTROL SAMPLES
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID No.	Date Taken	Compound(s) identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
SLRP006 0-3'	11-MAR-92	3-Hexanone, 2-Methyl-	330	J	7379-12-6	Substituted ketone
		1,3,6-Octatriene, 3,7-	21	J	3779-61-1	Petroleum contaminant
		Hexadecanoic Acid	**740**	R	57-10-3	Naturally occuring fatty acid
		1-Decanol, 2-ethyl-	700	J	21078-65-9	Organic acid
		Undecane, 3,8-dimethyl	470	J	17301-30-3	Component of jet fuel
		Undecane, 3,8-dimethyl	350	J	17301-30-3	Component of jet fuel
		Acetic acid, 1-methylet	**2000**	R	108-21-4	Isopropyl acetate (solvent)
		.alpha.-Pinene (ACN)	440	J	80-56-8	Petroleum contaminant
		3-Heptanone, 2,4-dimeth	**1400**	R	18641-71-9	Substituted ketone
SLRP007 0-3'	11-MAR-92	Benzene, 1,4-Dichloro-	480	J	5392-82-5	Petroleum contaminant
		Hexadecanoic Acid	1800	J	57-10-3	Naturally occuring fatty acid
		Hexanedioic acid, mono	38000	J	4337-65-9	Organic acid
		1-Decanol, 2-ethyl-	1100	J	21078-65-9	Substituted phenol
		Pentatriacontane	1600	J	630-07-9	Petroleum contaminant
		Acetic acid, 1-methylet	**2700**	R	108-21-4	Isopropyl acetate (solvent)
		3-Heptanone, 2,4-dimeth	**5000**	R	18641-71-9	Substituted ketone
SLRP008 0-3'	11-MAR-92	Hexadecanoic Acid	1000	J	57-10-3	Naturally occuring fatty acid
		11H-Benzo[a]fluorene	360	J	238-84-6	Petroleum contaminant
		Decanedioic acid, dide	520	J	2432-89-5	Organic acid
		Undecane, 3,8-dimethyl	610	J	17301-30-3	Component of jet fuel
		Benzo[j]fluoranthene	350	J	205-82-3	Petroleum contaminant
		Decane, 3-Bromo-	500	J	30571-71-25	Petroleum contaminant
		Acetic acid, 1-methylet	**1800**	R	108-21-4	Isopropyl acetate (solvent)
RP040	18-DEC-91	3,7-Decadiene, 2,9-Dimethyl-	37000	J	74630-13-0	Petroleum contaminant
		Cyclohexane, Pentyl-	18000	J	4292-92-6	Petroleum contaminant
		Cyclohexane, undecyl-	46000	J	54105-66-7	Petroleum contaminant
		Cyclopentane, 1-Methyl-3-(2-	26000	J	29053-04-1	Petroleum contaminant
		Cyclopentane, 1,2-Dimethyl-3	24500	J	489-20-3	Petroleum contaminant
		Decane, 2-Cyclohexyl-, 2-Cycl	42000	J	13151-73-0	Petroleum contaminant
		Decanedioic acid, didecyl es	16000	J	2432-89-5	Organic acid

Notes:
CAS = Chemical Abstracts Service. CAS numbers not available for all listed compounds.
"J" signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).
All rejected concentrations are shaded.

APPENDIX D-7
SUMMARY OF SOIL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED COMPOUNDS IN QUALITY CONTROL SAMPLES
NAVAL AIR STATION, JACKSONVILLE FLORIDA, OPERABLE UNIT 1
MARCH 1992

Sample ID No.	Date Taken	Compound(s) identified	Concentration, ug/kg	Qualifier	CAS Number	Comments
RP040	18-DEC-91	Decane, 3-Bromo-	40000	J	30571-71-2	Petroleum contaminant
		Diphosphoric acid, Diisoocty	4700	J	72101-07-6	Organic acid
		Dodecane, 2,6,10-trimethyl-	63000	J	3891-48-3	Petroleum contaminant
		Hydroxylamine, O-(3-Methylbu	5100	J	7803-49-8	
		Naphthalene, decahydro-	42000	J	91-17-8	Petroleum contaminant
		Naphthalene, decahydro-2-met	24000	J	2958-76-1	Petroleum contaminant
		Naphthalene, Decahydro-2,3-D	16000	J	1008-80-6	Petroleum contaminant
		Pentane, 2,3,3-Trimethyl-	7100	J	560-21-4	Petroleum contaminant
		Tricyclo[3.3.1.13,7]decane,	5400	J	7575-82-8	Petroleum contaminant
		Tridecane, 7-methyl-	87000	J	26730-14-3	Petroleum contaminant
RP068	17-DEC-91	11H-Benzo[a]Fluorene	1300	J	238-84-6	Petroleum contaminant
		1,1'-Biphenyl, 2,2',3,3',5,6	630	J	52744-13-5	
		1,1'-Biphenyl, 2,2',3,4,4',5	310	J	52663-69-1	
		1,1'-Biphenyl, 2,2',3,4',5,5	550	J	51908-16-8	
		1,1'-Biphenyl, 2,2',3,4,5,5'	810	J	52712-04-6	
		1,2,3-Propanetriol, Monoacet	1200	J	26446-35-5	Substituted phenol
		2(5H)-Furanone, 5,5-dimethyl	**1300**	R	20019-64-1	Substituted ketone
		3-Fluoranthenamine	390	J	2693-46-1	
		3-Heptanone, 2,4-dimethyl-	1100	J	18641-71-9	Substituted ketone
		Benzo[j]Fluoranthene	1100	J	192-97-7	Petroleum contaminant
		Benz[a]Anthracene, 7-Methyl-	370	J	2541-69-7	Petroleum contaminant
		Cyclohexene	950	J	110-83-8	Petroleum contaminant
		Ethanone, 1-(3-ethyloxiranyl	560	J	17257-81-7	Substituted ketone
		Silanol, Trimethyl-	**11**	R	1066-40-4	Substituted ketone
RP068_R	17-DEC-91	Silanol, Trimethyl-	**11**	R	1066-40-4	Substituted ketone

Notes:
CAS = Chemical Abstracts Service. CAS numbers not available for all listed compounds.
"J" signifies the compound was detected at an estimated concentration.
"R" Signifies that the data point was rejected during data validation under the Contract Lab Program (CLP).
All rejected concentrations are shaded.

Appendix E
Data Validation Summary

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1.0 SOIL SAMPLING ANALYTICAL RESULTS AND DATA VALIDATION

ABB Environmental Services, Inc. (ABB-ES), has reviewed the results of the chemical analysis of soil samples by CH2M Hill of Gainesville, Florida, and the validation of the chemical analytical results by Heartland Environmental Services of St. Peters, Missouri. Heartland Environmental Services validated the chemical analytical data in accordance with the *Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses*, July 1, 1988; the *Laboratory Data Validation Function Guidelines for Evaluating Organic Analyses*, June 1991; the NEESA Level C and D requirements, and professional judgment, where applicable.

Summarized validation tables are provided in the following order in Appendix E-1 through E-5.

Volatile Organic Compounds, Data Validation Summaries	Appendix E-1
Semivolatile Organics in Soil, Data Validation Summaries	Appendix E-2
Pesticides/PCB, Data Validation Summaries	Appendix E-3
Inorganic Compounds, Data Validation Summaries	Appendix E-4
Dioxins/Furans, Data Validation Summaries	Appendix E-5

The validation summary tables include the following:

- sample delivery groups and associated sample identifications,
- constituents qualified and footnotes explaining qualifications, and
- summaries of rejected data, where necessary.

2.0 SUMMARY OF DATA VALIDATION CRITERIA AND RESULTS

2.1 VOLATILE ORGANIC DATA VALIDATION CRITERIA

CH2M Hill Laboratories divided shipments of environmental samples into SDGs for ease of sample tracking and management. Data validation was performed on the following SDGs.

20492	32342	32374	32397	32416
20502	32349	32376	32408	32422
20847	32362	32384	32415	32423

For each SDG, Heartland evaluated the laboratory data in the following categories:

Holding Times
Tuning
Initial Calibration
Continuing Calibrations
Internal Standards
Method Blanks, Trip Blanks
Surrogate Recoveries
Matrix Spike/Matrix Spike Duplicates
Blank Spike/Blank Spike Duplicates
Compound Identification/Quantitation

The criteria for performance in each of the quality control categories listed above is as follows.

Holding Times. Technical requirements for sample holding times have only been established for water matrices. The holding times for soils (and other non-aqueous matrices such as sediments, oily wastes, and sludge) are currently under development. It is recommended that volatile compounds in properly preserved non-aqueous samples be analyzed within 14 days of sample collection. The NEESA contractual maximum holding times, which differ from the technical maximum holding times, state that water and soil samples are to be analyzed within 10 days from the validated time of sample receipt (VTSR) at the laboratory.

Samples in SDG 32349 exceeded the 14-day analytical holding time by one day; all positive detections for sample in this SDG were qualified as (J), estimated. Four of the samples in SDG 32423 exceeded the 10-day contractual holding time, but were analyzed within the 14-day analytical timeframe. No qualifications were required for SDG 32423.

Tuning. Gas chromatograph/mass spectrometer (GC/MS) instrument performance checks (formerly referred to as tuning) are performed to ensure mass resolution, identification, and to some degree, sensitivity. These criteria are not sample specific. Conformance is determined using standard materials; therefore, these criteria should be met in all circumstances. The analysis of the instrument performance check solution must be performed at the beginning of each 12-hour period during which samples of standards are analyzed. The instrument performance check, bromofluorobenzene (BFB) for volatile analysis, must meet ion abundance criteria. If mass assignment is in error (such as m/z 96 is indicated as the base peak rather than m/z 95), classify all associated data as unusable (R).

All of the BFB tunes in the initial and continuing calibrations were satisfactory.

Initial Calibration. Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for compounds on the volatile target compound list (TCL). Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing a linear calibration curve. Initial calibration standard Relative Response Factors (RRFs) for all volatile target compounds and system monitoring compounds (surrogates) must be greater than or equal to 0.05. The Percent Relative Standard Deviation (%RSD) from the initial calibration must be less than or equal to 30.0 percent for all compounds.

Because historical performance data indicate poor response and/or erratic behavior, the volatile compounds below have no contractual maximum %RSD criteria. Contractually, they must meet a minimum RRF criterion of 0.01; however, for data review purposes, the "greater than or equal to 0.05" criterion is applied to all volatile compounds. Volatile target compounds exhibiting poor response are:

Acetone	1,2-Dichloropropane
2-Butanone	2-Hexanone
Carbon disulfide	Methylene chloride
Chloroethane	4-Methyl-2-pentanone

Chloromethane	Toluene-d_8
1,2-Dichloroethene (total)	1,2-Dichloroethane-d_4
trans-1,2-Dichloroethene	1,2-Dibromo-3-chloropropane
cis-1,2-Dichloroethene	

Twelve SDGs had one or more initial calibrations that were not acceptable because one or more compounds had %RSDs greater than 30 percent, and/or one or more compounds had RRFs less than 0.05. Of these 12 SDGs, 4 SDGs (32349, 32362, 32374, and 32384) had samples that required requalification of results for 2 compounds, acetone and 2-butanone. Positive acetone results were requalified as estimated (J), non-detects were requalified as estimated (UJ). Positive 2-butanone results were requalified as estimated (J); non-detects were requalified as rejected, (R).

Continuing Calibration. Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data. Continuing calibration establishes the 12-hour RRFs on which the quantitations are based and checks satisfactory performance of the instrument on a day-to-day basis.

Continuing calibration standards containing both target compounds and system monitoring compounds (surrogates) are analyzed at the beginning of each 12-hour analysis period following the analysis of the instrument performance check and prior to the analysis of the method blank and samples. The continuing calibration RRF for volatile target compounds and system monitoring compounds (surrogates) must be greater than or equal to 0.05. The Percent Difference (%D) between the initial calibration RRF and the continuing calibration RRF must be within ±25.0 percent.

All 15 SDGs had one or more compounds that required requalification because 1 or more continuing calibrations in each SDG had non-compliant %Ds and/or RRFs. All positive results for these compounds were requalified as estimated (J). All non-detects with %Ds greater than 50 percent, but less than 90 percent were requalified as estimated (UJ). All non-detects with RRFs less than 0.05 were requalified as rejected (R). See the tables in Appendix E-1 for a listing of the requalified compounds and the associated samples.

Internal Standards. Internal Standards (IS) performance criteria ensures that GC/MS sensitivity and response are stable during each analysis. Internal standard area counts must not vary more than a factor or two (-50 percent to +100 percent) from the associated calibration standard. The retention time of the internal standard must not vary more than ±30 seconds from the retention time of the associated calibration standard.

Five SDGs had internal standard Extracted Ion Current Profile (EICP) areas that did not meet the EICP internal standard area QA/QC criteria. Four of the five SDGs (20492, 20847, 32397, and 32423) had compounds requiring requalification. The non-compliant internal standard areas in SDG 32422 did not have an effect on the spike recoveries, so no qualifications were required for compounds in this SDG. In the other four SDGs, for the compounds associated with the non-compliant internal standards (see tables in Appendix E-1), all positive results were requalified as estimated (J), and all non-detect results were requalified as estimated (UJ).

Method Blanks, Trip Blanks. The purpose of laboratory (or field) blank analysis is to determine the existence and magnitude of contamination resulting from laboratory (or field) activities. The criteria for evaluation of blanks apply to any blank associated with the sample (e.g., method blanks, instrument blanks, trip blanks, and equipment blanks). If problems with any blank exists, all associated data must be carefully evaluated to determine whether or not there is an inherent variability in the data, or if the problem is an isolated occurrence not affecting other data. No contaminants should be found in the blanks. A method blank analysis must be performed after the calibration standards and once for every 12-hour time period beginning with the injection of BFB.

All 15 SDGs contained method blanks that exhibited contamination. Because of this, samples from each SDG required requalification. Method blanks that were analyzed in seven SDGs exhibited contamination for acetone and methylene chloride. Four of the SDGs (32342, 32362, 32374, and 32423) exhibited contamination for acetone, methylene chloride, and bromomethane. Two of the SDGs (32349 and 32384) exhibited contamination for acetone, methylene chloride, bromomethane, and chloromethane. One of the SDGs (20502) exhibited contamination for TCLs and one of the SDGs (20492) exhibited contamination for TCLs and tentatively identified compounds (TICs). See the tables in Appendix E-1 for the samples that have been qualified for blank contamination.

Eleven of the 15 SDGs had a trip blank analyzed with the SDG. All eleven trip blanks exhibited contamination. In seven SDGs (20492, 32342, 32349, 32362, 32374, 32376, and 32416), the contamination was attributed to the method blank, and no qualifications were required. The SDG 20847 trip blank exhibited contamination for methylene chloride and acetone. However, the contamination was attributed to the associated method, so qualifications were not required.

Two SDGs (32397 and 32423) had trip blanks that exhibited contamination for acetone and contamination that was attributed to the method blank. One sample in each SDG, analyzed for acetone, was given a method blank qualification code of (U), non-detect at the analyte value reported. The trip blank that was analyzed with SDG 20502 exhibited contamination for 2-butanone. One sample, analyzed for 2-butanone, was given a method blank qualification code of (CRQL), the CRQL for that analyte is reported.

Surrogate Recoveries. Laboratory performance on individual samples is established by means of spiking activities. All samples are spiked with system monitoring compounds (formerly referred to as surrogates) prior to sample purging. The evaluation of the results of these system monitoring compounds is not necessarily straightforward. The sample itself may produce effects due to such factors as interferences and high concentrations of analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the evaluation and review of data based on specific sample results is frequently subjective and demands analytical experience and professional judgment. Accordingly, this section consists primarily of guidelines, in some cases with several optional approaches suggested. Three system monitoring compounds (1,2-dichloroethane-d_4 bromofluorobenzene, and toluene-d_8) are added to all samples and blanks to measure their recovery in environmental samples in sample and blank matrices. Recoveries for system monitoring compounds (surrogates) in volatile samples and blanks must be within the limits specified.

Eleven of the 15 SDGs had surrogate recoveries that were within QA/QC limits. Four of the SDGs (20492, 20847, 32397, and 32422) had one or more samples that exhibited recoveries above QA/QC limits for the surrogate toluene-d_8. Therefore, for this compound all positive results were requalified as estimated (J), and all non-detects were requalified as estimated (UJ). See tables in Appendix E-1 for affected samples.

Matrix Spikes/Matrix Spike Duplicates. Data for matrix spike/matrix spike duplicates (MS/MSD) are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. These data alone cannot be used to evaluate the precision and accuracy of individual samples. However, when exercising professional judgement, this data should be used in conjunction with other available QC information.

Seven of the 15 SDGs had MS/MSDs analyzed. Five of these exhibited acceptable recoveries and RPDs and no qualifications were required. SDG 32342 had two compounds which exhibited recoveries above the advisory limit. However, all RPDs were within advisory limits, so no qualifications were required. SGD 20492 had percent recoveries and RPDs that were not within advisory limits. However, the percent recoveries were greater than 10 percent, so no qualifications were required.

For all 15 SDGs, the laboratory did not analyze a BS/BSD with every tune and calibration sequence.

Compound Identification/Quantitation. The objective is to ensure that the reported quantitation results and CRQLs are accurate. Compound quantitation, as well as the adjustment of the CRQLs, must be calculated according to the correct equation. Compound RRFs must be calculated based on the internal standard (IS) associated with that compound (as specified in the Statement of Work [SOW]) for packed column analyses. Quantitation must be based on the quantitation ion (m/z) specified in the SOW for both the IS and target analytes. The compound quantitation must be based on the RRF from the appropriate daily standard.

If it is determined that incorrect identifications were made, all such data should be qualified as not detected (U) or unusable (R). Professional judgment must be used to qualify the data if it is determined that cross-contamination has occurred.

For eleven of the 15 SDGs, no qualifications were required. Three SDGs (20847, 32397, and 32422) had non-compliant internal standards and/or surrogate recoveries requiring that some samples be reported and others rejected (see tables in Appendix E-1). SDG 32349 had two samples in which all compounds that exceeded the linear range (E) were rejected in favor of the results from their associated diluted samples and two samples in which all non-detects were rejected (R) and all positive results were requalified as diluted (D). See tables in Appendix E-1 for affected samples.

The laboratory performance was acceptable overall, for the 15 SDGs reviewed. The data validator estimated that less than 5 percent of the data required qualification.

2.2 SEMIVOLATILE DATA VALIDATION

CH2M Hill Laboratories divided shipments of environmental samples into SDGs for ease of sample tracking and management. Data validation was conducted on the following SDG groups:

20492	32342	32362	32408	32422
20502	32343	32374	32415	32376
20847	32349	32397	32416	32384

Tabulated data for validation of each SDG and its associated sample identification are provided in Appendix E-2. For each SDG Heartland evaluated, the laboratory data in the following categories.

Holding Times
Tuning
Initial Calibrations
Continuing Calibrations
Internal Standards
Method Blanks, Trip Blanks
Surrogate Recoveries
Matrix Spike/Matrix Spike Duplicate
Compound Identification/Quantitation
System Performance and Overall Assessment
Blank Spike/Blank Spike Duplicate

The criteria for performance in each of the quality control categories listed above is as follows.

Holding Times. Technical requirements for sample holding times have only been established for water matrices. The holding times for soils (and other non-aqueous matrices such as sediments, oily wastes, and sludge) are currently under investigation. For semivolatile compounds in cooled (@ 4°C) water samples, the maximum holding time is 7 days from sample collection to extraction and 40 days from sample extraction to analysis. It is recommended that semivolatile compounds in non-aqueous samples be extracted within 14 days of sample collection. The contractual holding times, which differ from the technical holding times, state that water samples are to be extracted within 5 days from the VTSR at the laboratory, and soil samples are to be extracted within 10 days from the VTSR. Also, contractually, both water and soil sample extracts must be analyzed within 40 days of sample extraction. However, the contractual delivery due date is 35 days from the VTSR.

Sample Delivery Group 32423 contained one sample, SLEB006RE, for which the holding time was not met. Analysis of the sample exceeded the holding time by 6 days. Positive results for this sample were estimated (J). Holding times were met for all other SDGs.

Tuning. The analysis of the instrument performance check solution must be performed at the beginning of each 12-hour period during which samples or standards are analyzed. The instrument performance check, decafluorotriphenylphosphine (DFTPP) for volatile analysis, must meet the ion abundance criteria. If mass assignment is in error (such as m/z 199 is indicated

as the base peak rather than m/z 198), classify all associated data as unusable (R).

All DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria of the SOW and the Organic Functional Guidelines. Qualifications were not required.

Initial Calibration. Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for compounds on the semivolatile TCL. Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing a linear calibration curve. Initial calibration standards containing both semivolatile target compounds and surrogates are analyzed at concentrations of 20, 50, 80, 120, and 160 $\mu g/\ell$ at the beginning of each analytical sequence or as necessary if the continuing calibration acceptance criteria are not met. The initial calibration (any associated samples and blanks) must be analyzed within 12 hours of the associated instrument performance check. Minimum RRF criteria must be greater than or equal to 0.05. The %RSD for the RRFs in the initial calibration must be less than or equal to 30 percent.

Because historical performance data indicate poor response and/or erratic behavior, the semivolatile compounds below have no contractual maximum %RSD criteria. Contractually, they must meet a minimum RRF criteria of 0.01; however, for data review purposes, the "greater than or equal to 0.05" criterion is applied to all semivolatile compounds. Semivolatile target compounds exhibiting poor response are:

2,2'-oxybis(1-Chloropropane)	Diethylphthalate
4-Chloroaniline	4-Nitroaniline
Hexachlorobutadiene	4,6-Dinitro-w-methylphenol
Hexachlorocyclopentadiene	N-Nitrosodiphenylamine
2-Nitroaniline	Di-n-butylphthalate
Dimethylphthalate	Butylbenzylphthalate
3-Nitroaniline	3-3'-Dichlorobenzidine
2,4-Dinitrophenol	bis(2-Ethylhexyl)phthalate
4-Nitrophenol	Di-n-ocrylphthalate
Carbazole	Di-n-ocrylphthalate
Nitrobenzene-d_8	

The initial calibrations that were analyzed by the laboratory for all SDGs were acceptable for all compound %RSDs. The average RRFs for all of the criteria compounds met the initial calibration criteria.

Continuing Calibrations. Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for semivolatile target compounds. Continuing calibration establishes the 12-hour RRFs on which the quantitations are based and checks satisfactory performance of the instrument on a day-to-day basis.

Continuing calibration standards containing both target compounds and surrogates are analyzed at the beginning of each 12-hour analysis period following the analysis of the instrument performance check and prior to the analysis of blanks

and samples. The minimum RRF for semivolatile target compounds and surrogates must be greater than or equal to 0.05. The %D between the initial calibration RRF and the continuing calibration RRF must be within ±25.0 percent.

All of the SDGs reviewed by Heartland required qualification of continuing calibrations for a portion of the samples contained in the SDGs. In all cases, identified samples contained compounds with %Ds greater than 25 percent but less than 50 percent. Positive results for these compounds were estimated (J). In certain instances identified samples contained compounds with %Ds greater than 50 percent but less than 90 percent. In these instances, positive results were estimated (J) and non-detects were estimated (UJ). In no instance were any samples rejected (R) due to the non-compliant continuing calibrations. Each SDG summary accompanying this document contains a specific list of the compounds detected during continuing calibration and the samples affected.

Internal Standards. Internal standard area counts must not vary by more than a factor of two (-50 percent to +100%) from the associated calibration standard. The retention time of the internal standard must not vary more than ±30 seconds from the retention time of the associated calibration standard.

Sample Delivery Group 32374 contained samples for which the internal standard (EICP) areas (area inside peak) did not meet the EICP internal standard area QA/QC criteria. Two samples, SL082 3-5' and SL082 3-5' RE, contained compounds for which the internal standard areas are greater than +100 percent of the EICP area of the associated calibration standard. All positive results associated with the non compliant internal standard are estimated (J).

Method Blanks, Trip Blanks. The purpose of laboratory (or field) blank analysis is to determine the existence and magnitude of contamination resulting from laboratory (or field) activities. The criteria for evaluation of blanks apply to any blank associated with the sample (e.g., method blanks, instrument blanks, trip blanks, and equipment blanks). If problems with any blank exists, all associated data must be carefully evaluated to determine whether or not there is an inherent variability in the data, or if the problem is an isolated occurrence not affecting other data. No contaminants should be found in the blanks. The method blank must be analyzed on each GC/MS system used to analyze that specific group or set of samples.

In 14 of the 15 SDGs, method blank contamination was detected. In all but one instance, the sample result for the blank contaminant was less than the sample CRQL and less than 10 times the method blank value. The sample result for the blank contaminant then is rejected and the CRQL for that analyte is reported. Sample Delivery Group 20492 was the only instance in which samples were rejected (R) due to method blank contamination.

Surrogate Recoveries. Laboratory performance on individual samples is established by means of spiking activities. All samples are spiked with surrogate compounds prior to sample preparation. The evaluation of the results of these surrogate spikes is not necessarily straightforward. The sample itself may produce effects due to such factors as interferences and high concentrations of analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the evaluation and review of data based on specific sample results is frequently subjective and demands analytical experience and professional judgment.

Accordingly, this section consists primarily of guidelines, in some cases with several optional approaches suggested. Surrogate spikes, 4 acid compounds (3 required and 1 advisory), and 4 base/neutral compounds (3 required and 1 advisory) are added to all samples and blanks to measure their recovery in sample and blank matrices.

All sample surrogate recoveries were within QA/QC criteria. Qualifications were not required.

Matrix Spike/Matrix Spike Duplicates. Data for MS/MSDs are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. These data alone cannot be used to evaluate the precision and accuracy of individual samples.

MS/MSD samples were analyzed in 6 of the 15 SDGs. Two of the six SDGs for which MS/MSD samples were analyzed were within QA/QC advisory limits. No qualifications were required. In four of the six SDGs containing MS/MSD samples, RPDs were greater than the advisory limit for a specified compound. All recoveries were greater than 10 percent; however, no qualification of the data was required.

Compound Identification/Quantitation. Compound quantitation, as well as the adjustment of the CRQL, must be calculated according to the correct equation. Compound area responses must be calculated based on the IS associated with that compound (as specified in the SOW). Quantitation must be based on the quantitation ion (m/z) specified in the SOW for both the IS and target analytes. The compound quantitation must be based on the RRF from the appropriate daily calibration standard.

If it is determined that incorrect identifications were made, all such data should be qualified as not detected (U) or unusable (R). Professional judgment must be used to qualify the data if it is determined that cross-contamination has occurred.

Three of the 15 SDGs required Compound Identification Quantitation. For SDG 32374, sample results for SL082 3-5' RE were rejected (R) and results reported for the original sample SL082 3-5' due to non compliant internal standard areas. For SDG 32349, sample SL044 7-9', positive sample results above the calibration range were rejected (R) due to dilution. Positive results for sample SL044 7-9' DL (D) were qualified and all non detects were rejected (R). For SDG 32362, positive sample results above the calibration range for were rejected (R) due to dilution. Positive results for sample SL099 5-7DL were qualified and all non detects were rejected (R).

Blank Spike/Matrix Spike Duplicates. If the blank/spike results are outside the internal laboratory limits and if the MS results are outside the CLP limits, the laboratory will either reanalyze the samples or the data will be flagged with an "R," and the data is not usable. If surrogates exceed the CLP limits, the data shall be flagged that the surrogates exceeded the limits. A method blank should be run each day following the Continuing Calibration Standard. Phthalate should not be found in the blank at levels over 5x the detection limits. Other compounds should not be found in the blank at levels exceeding the detection limits.

There were no Blank Spike/Blank Spike Duplicates (BS/BSD) associated with 13 of the 15 SDGs. For two of the SDGs, the laboratory did not analyze a BS/BSD with every tune and calibration sequence.

For all 15 SDGs, Heartland stated the laboratory performance as satisfactory. No significant problems were noted. The data reviewer estimated that less than 8.5 percent of the data required qualification.

2.3 PESTICIDES AND PCBS DATA VALIDATION

CH2M Hill Laboratories divided shipments of environmental samples into SDGs for ease of sample tracking and management. Data validation was performed on the following SDGs.

20492	32342	32376	32415
20502	32349	32384	32416
20803	32362	32397	32422
20847	32374	32408	32423

Tabulated data for validation of each SDG and their associated sample identifications are provided in Appendix E-3. For each SDG, Heartland evaluated the laboratory data in the following nine categories:

Holding Times
GC Instrument Performance
Initial Calibration and Continuing Calibrations
Blanks
Surrogate Recoveries
Matrix Spike/Matrix Spike Duplicates
Analyte Identification/Quantitation

The criteria for laboratory performance in each of the quality control categories listed above is as follows.

Holding Times. The objective is to ascertain the validity of results based on the holding time of the sample from time of collection to time of analysis or sample preparation, as appropriate. Technical requirements for sample holding times have only been established for water matrices. The holding times for soils are currently under investigation. Samples must be extracted within 7 days and the extract must be analyzed within 40 days. Both samples and extracts must be stored at 4° C. Actual holding times are established by comparing sampling date on the USEPA Sample Traffic Report with dates of analysis and extraction on Form I. No qualifications were required.

GC Instrument Performance. The criteria are established to ensure that adequate chromatographic resolution and instrument sensitivity are achieved by the chromatographic system. Conformance is determined using standard materials. If the retention time of DDT is less than 12 minutes, a close examination of the chromatograph is necessary to ensure that adequate separation of individual components is achieved. The performance criteria were met. No qualifications were required.

Initial and Continuing Calibration. Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable

of producing acceptable quantitative data. Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning, and continuing calibration checks document satisfactory maintenance and adjustment of the instrument over specific time periods. For the initial calibration, the %RSD of calibration factors for aldrin, endrin, DDT, and dibutylchlorendate must not exceed 10 percent. If toxaphene is identified and quantified, a three-point calibration is required.

Initial and continuing calibration criteria were met. No qualifications were required.

Blanks. The assessment of blank analysis results is to determine the existence and magnitude of contamination problems. The criteria for evaluation of blanks apply to any blank associated with the samples. If problems with any blank exist, all data associated with the case must be carefully evaluated to determine whether or not there is an inherent variability in the data for the case, or the problem is an isolated occurrence not affecting other data. No contaminants should be present in the blank(s).

Contaminants were not detected in the QA/QC blanks. No qualifications were required.

Surrogate Recoveries. Laboratory performance on individual samples is established by means of spiking activities. All samples are spiked with a surrogate compound prior to sample preparation. The evaluation of the results of these surrogate spikes is not necessarily straightforward. The sample itself may produce effects due to such factors as interferences and high concentrations of analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the review and validation of data based on specific sample results is frequently subjective and demands analytical experience and professional judgment. No qualifications were required.

Matrix Spike/Matrix Spike Duplicates. These data are generated to determine long-term precision and accuracy of the analytical method on various matrices. These data alone cannot be used to evaluate the precision and accuracy of individual samples. Advisory limits are established for spike recovery limits in the appropriate SOW and on Form III. Advisory limits are established for relative percent difference between matrix spike and matrix spike duplicate recoveries in the appropriate SOW and on Form III. No qualifications were required.

Analyte Identification/Quantitation. Qualitative criteria for compound identification have been established to minimize the number of erroneous identifications of compounds. An erroneous identification can either be a false positive (reporting a compound present when it is not) or a false negative (not reporting a compound that is present). Retention times of reported compounds must fall within the calculated retention time windows for the two chromatographic columns. GC/MS confirmation is required if the concentration of a compound exceeds 10 ng/uℓ in the final sample extract.

If the qualitative criteria for two-column confirmation were not met, all reported positive detects should be considered non-detects. If the misidentified peak was sufficiently outside the target pesticide retention time window, then

the CRQL can be reported. If the misidentified peak poses an interference with potential detection of a target peak, then the reported value should be considered and flagged as the estimated quantitation (UJ). Quantitation limits affected by large, off-scale peaks should be flagged as unusable (R). If the interference is on-scale, the reviewer can provide an estimated quantitation limit (UJ) for each affected compound.

In SDGs 20492 and 20502, all positive Arochlor 1260 were requalified as (J), estimated. Also, all non-detects were requalified as (UJ), estimated detection limit (Appendix E-3). In all cases, the reported results were below CLP mandated contract required quantitation limits (CRQLs).

PCB and pesticide concentrations in SDGs 20803, 20847, 32362, 32384, 32397, 32408, 32415, 32416, 32422, and 32423 were detected below the CRQLs. These were laboratory qualified as (JX), estimated and below CRQLs, and remained unchanged after Heartland's data validation (see tables in Appendix F-2).

2.4 INORGANIC DATA VALIDATION

CH2M Hill divided shipments of environmental samples into SDGs for ease of sample tracking and management. Data verification was performed on the following SDGs:

20492	32362	32408
20502	32374	32415
20847	32376	32416
32342	32384	32423
32349	32422	

Tabulated data for validation of each SDG and its associated sample identification are provided in Appendix E-4. For each SDG, Heartland evaluated the laboratory data using the following nine categories:

Holding times
Calibration (initial and continuing)
Preparation and Field Blank
Interferences
Duplicate
Laboratory Control Samples (LCS)
Serial Dilution
Matrix Spike Sample Analysis (MSA) and Spike Recovery

The criteria for laboratory performance in each of the quality control categories listed above is as follows.

Holding Times. The objective is to ascertain the validity of results based on the holding time of the sample from time of collection to time of analysis. Technical requirements for sample holding times have only been established for water matrices.

No sample exceeded the holding times, as specified in Section 3 of the NEESA (20.2-047B) QA protocol.

Initial and Continuing Calibration. Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable

of producing acceptable quantitative data. Initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of the analysis run, and continuing calibration verification documents that the initial calibration is still valid. Instruments must be calibrated daily and each time the instrument is set up. The correlation between blanks analytical curves must be greater than or equal to 0.995.

Initial calibration must have a correlation coefficient of greater than 0.995. Initial and continuing calibrations for most inorganics must remain within 90 and 110 %R of the expect or control limit. An excepted range for mercury is 80 to 120 %R. Cyanide must remain with 85 to 115 %R. At present, the USEPA CLP Data Validation Guidelines do not deal with CRDL results that are outside the control limits.

As a policy, Heartland ESI points out recovery problems found in the data. Only SDGs 20492 and 20502 deviated from control limits. Antimony exhibited low recovery for samples representing the lowest concentrations. These low recovery ranges, from samples at or near the CRDL, may result in reported values being lower than the actual values. In the same SDGs, cadmium, chromium, and lead exhibited high recovery ranges. All positive results at or near the CRDL may be an underestimation of the true value.

Preparation and Field Blank. The assessment of blank analysis results is to determine the existence and magnitude of contamination problems. The criteria for evaluation of blanks applies to any blank associated with the samples. If problems with any blank exist, all data associated with the case must be carefully evaluated to determine whether or not there is an inherent variability in the data for the case, or if the problem is an isolated occurrence not affecting other data. No contaminants should be in the blank(s).

All SDGs exhibited some preparation blank contamination. USEPA's policy it to report positive results less than 5 times the blank result as non-detected. Positive sample results between 5 and 10 times the blank results are flagged as estimated. Results greater than 10 times are reported as real values.

In addition, the following seven SDG preparation blanks exhibited negative contamination in water: 20492 had potassium, 20502 had potassium, 32342 had cyanide, 32349 had cyanide, and 32362 had cyanide.

Also the following four SDG preparation blanks exhibited negative contamination in soil : 20492 and 20502 each had cadmium and vanadium; 20502, 32374, and 32362 each had beryllium.

Heartland ESI's policy is to flag as estimated "J" all sample result less than 10 times the absolute value of the preparation blank due to negative bias. Values greater than 10 times are not qualified.

Interferences. The Interference Check Sample (ICP) verifies the contract laboratory's interelement and background correction factors. An ICS must be run at the beginning and end of each sample analysis run (or a minimum of twice per 8-hour working shift, whichever is more frequent). Results for the ICS solution AB analysis must fall within the control limits of ±20 percent of the true value.

No significant interferences were found.

Duplicate. Duplicate analyses are indicators of laboratory precision based on each sample matrix. Samples identified as field blanks cannot be used for duplicate sample analysis.

Seven of the SDGs had one or more elements that failed to be within control limits for the duplicate. Three SDGs had one or more elements with recoveries that were less than 35 percent and were not qualified.

Laboratory Control Samples. The laboratory control sample serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. All solid LCS results must fall within the control limits established by USEPA. This information is available from EMSL/LV.

One SDG group (20803) was above the upper control limit for one element (manganese). All positive results for manganese results were qualified as estimated.

Serial Dilution. The serial dilution determines whether significant physical or chemical interferences exist due to sample matrix. If the analyte concentration is sufficiently high (concentration in the original sample is minimally a factor of 50 above the IDL), an analysis of a 5-fold dilution must agree within 10 %D of the original results.

Serial dilutions will be are performed if the sample is greater than 50 times the CDRL. A five fold dilution will be performed and must agree within 10 percent (%D) of the original results. Ten SDG groups had one or more elements that exceeded the control limits. Serial dilutions were needed, but not performed on SDG 20803, resulting in all positive values qualified as estimated "J." Seven SDGs failed to meet control limits for Sodium. Two SDGs failed to meet control limits for copper. Barium exceeded the control limit in one SDG.

Matrix Spike Sample Analysis (MSA and Spike Recovery. The matrix spike sample analysis provides information about the effect of each sample matrix on the digestion and measurement methodology. Samples identified as field blanks cannot be used for spiked sample analysis. Spike recovery (%R) must be within the limits of 75 to 125 percent. However, spike recovery limits do not apply when sample concentration exceeds the spike concentration by a factor of 4 or more.

The matrix spike sample analysis provides information about the effect of each sample matrix on digestion and measurement methodology. Twenty-eight samples exhibited low recovery. They were: nine selenium samples, twelve thallium samples, six silver samples, and one arsenic sample. In addition, two selenium samples exhibited high recovery.

Laboratory performance overall was acceptable. Discussions regarding data useability, background ranges for inorganics, and extent of contaminants of concern will be forthcoming in the Preliminary State Characterization Report (planned for delivery at completion of the NAS Jacksonville field investigations).

Spike Recovery. Eleven SDGs had one or more elements that were outside the control limit criteria. The following SDGs and associated elements were below the lower control limits and qualified as estimated values "J" or estimated detection levels "UJ":

- 20847 for silver
- 32422 for silver
- 32415 for Silver
- 32384 for silver
- 32374 for zinc
- 32376 for zinc
- 20803 for selenium
- 32342 for arsenic and barium
- 32349 for arsenic and barium
- 32362 for arsenic and barium
- 20492 for antimony barium and selenium
- 20502 for antimony barium and selenium

The following SDG's and associated elements were above the upper control limits and all positive values qualified as estimated.

- 32422 for zinc
- 32342 for cadmium and chromium
- 32349 for cadmium and chromium
- 32362 for cadmium and chromium
- 20492 for arsenic manganese and nickel
- 20502 for arsenic manganese and nickel

The following SDGs and associated elements were below 30 percent of the control limits. All positive values were qualified as estimated and all non-detects were rejected.

- 20502 for cadmium, silver, and chromium
- 20492 for cadmium, silver and chromium
- 32374 for zinc
- 32376 for zinc

2.5 DIOXINS/FURANS DATA VALIDATION

CH2M Hill divided shipments of environmental samples into SDGs for ease of sample tracking and management. Data verification was performed on the following SDGs.

20493	32349	32416
20501	32362	32422
32342	32415	32423

Tabulated data for each SDG and their associated sample identifications are provided in Appendix E-5. For each SDG, Heartland evaluated the laboratory data in the following eight categories.

Holding Times
Column Performance Check
Initial Calibrations
Routine Calibrations

Method Blanks
Matrix Spike/Matrix Spike Duplicates
Compound Identification/Quantitation
Recovery Standards

With exception of Recovery Standards, the other validation criteria were within the functional guideline, and no qualifications were required.

Recovery Standards. Each of the nine SDGs had one or more recovery standard that exhibited recoveries below the advisory limits. SDG 32362 had one high recovery standard that was indicative of a high bias for positive OCDD and OCDF results. However, since all the results for OCDD and OCDF in this SDG were non-detect, no qualifications were required.

In the other eight SDGs, all positive results associated with the non-compliant recovery standards were qualified as estimated (J) and all non-detect results were qualified as estimated (UJ).

2.6 RADIOLOGICAL DATA VALIDATION

CH2M Hill divided shipments of environmental samples into SDGs for ease of sample tracking and management. Data validation was performed on the following SDGs:

32342	32376	32415
32349	32384	32416
32362	32397	32422
32374	32408	32423

A total of 77 soil and 10 water samples were analyzed for selected radiological parameters. Since no qualifications were required, tabulated data for each SDG and their associated sample identifications were not developed. For each SDG, Heartland evaluated the laboratory data in the following three categories:

Data Deliverables
Radium 226/Gross Alpha
Radium 228/Gross Beta

Summary:

Data Deliverables. The deliverable for this data package was limited to sample results, BS/BSD results, and control charts. This information was provided.

Radium 226/Gross Alpha. The reported results for Radium 226 did not indicate a problem with the Gross Alpha results. No qualifications were required.

Radium 228/Gross Beta. The reported results for Radium 228 did not indicate a problem with the Gross Beta results. No qualifications were required.

Appendix E-1
Volatile Organic Compounds, Data Validation Summaries

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 20492

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial (a) Calibration Relative Response Factor > =05%	Initial (a) Calibration Relative Standard Deviation > =30%	Continuing (b) Calibration > =25% & < =50% Relative Response Factor and %Difference	Internal (c) Standards	Positive (d) Detects Method Blanks	Surrogate (e) Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SL068 0-3" (a-e)	A	A	A	1,1,1-Trichloroethane	Bromochloromethane	Acetone	Toluene-d_8	A
SL068MS 0-3" (a-c)	A	A	A	Carbon tetrachloride	1,4-Difluorobenzene	Methylene chloride		A
SL068MS 0-3" (a,b)	A	A	A	Bromodichloromethane	Chlorobenzene-d_5	2-Butanone		A
SL068R 0-3" (a-e)	A	A	A	Bromoform		Tentatively identified compound 1		A
SL073 0-3" (a,b,d)	A	A	A	Acetone				A
RP068 0-3" (a-d)	A	A	A	Carbon disulfide				A
RP068R 0-3" (a-d)	A	A	A	Chloromethane				A
SL070 0-3" (a-e)	A	A	A	2-Butanone				A
SL070R 0-3" (a,d,e)	A	A	A	1,2-Dichloroethane-d_4				A
SL074 0-3" (a,b,d)	A	A	A	Bromomethane				A
FB (a,b,d)	A	A	A	1,1-Dichloroethane				A
EB (a,b,d)	A	A	A					A
TB (a,b,d)	A	A	A					A

(a) The initial calibration for acetone contained % Relative Standard Deviation (%RSD) less than 30 percent. No qualifications required because no samples were analyzed after the initial calibration.

(b) These compounds had % Difference (%D) greater than 25 %D and less than 50 %D Qualify all positive results as estimated (J), and qualify non-detects as estimated (UJ).

(c) These compounds did not meet the EICP internal standard peak area Quality Assurance/Quality Control (QA/QC) criteria. Qualify all positive results as estimated (J), and qualify all non-detects as estimated (UJ).

(d) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL). TICs qualified as Rejected (R).

(e) Toluene -d_8 was found outside the QA/QC limits. Qualify all positive results as estimated (J), and all non-detects as estimated (UJ).

Note· A = acceptable under Contract Laboratory Validation Requirements

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 20502

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial (a) Calibration Relative Response Factor >=05%	Initial (a) Calibration Relative Standard Deviation >=30%	Continuing (b) Calibration >=25% & <=50% Relative Response Factor and %Difference	Internal Standards	Positive (c) Detects Method Blanks	Surrogate (e) Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
EB (a-c)	A	A	A	1,1-Dichloroethane	A	Acetone	A	A
FB (a)	A	A	A	1-2-Dichloroethane	A	Methylene chloride	A	A
TB (a,b,c)	A	A	A	1,1,1-Trichloroethane	A		A	A
RP040 7.5-8.5' (a-c)	A	A	A	Carbon Tetrachloride	A		A	A
SL040 7 5-8.5' (a-c)	A	A	A	trans-1-3-Dichloropropene	A		A	A
SL040MS 0-2' (a,b)	A	A	A	Tetrachloroethene	A		A	A
SL040MSD 0-2' (a,b)	A	A	A	Bromofluorobenzene	A		A	A
	A	A	A	Acetone	A		A	A
	A	A	A	Carbon disulfide	A		A	A
	A	A	A	Chloroethane	A		A	A
	A	A	A	Chloromethane	A		A	A
	A	A	A	2-Hexanone	A		A	A
	A	A	A	Methylene chloride	A		A	A
	A	A	A	Bromomethane	A		A	A
	A	A	A	2-Butanone	A		A	
	A	A	A	Bromoform	A		A	A

(a) The initial calibration for acetone contained % Relative Standard Deviation (%RSD) less than 30 percent. No qualifications required because no samples were analyzed after the initial calibration.

(b) These compounds had % Difference (%D) greater than 25 %D and less than 50 %D. Qualify all positive results as estimated (J).

(c) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note. A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 20847

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor >=05%	Initial Calibration Relative Standard Deviation >=30%	Continuing (a) Calibration >=25% & <=50% Relative Response Factor and %Difference	Internal (b) Standards	Positive (c) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SL056 0-3" (a,c)	A	A	A	1,2-Dichloroethane	Chlorobenzene-d_5	Methylene chloride	A	A
SL056R 0-3" (b,c)	A	A	A	1-2-Dichloroethane-d_4	1,4-Difluorobenzene	Acetone	A	A
SL057 0-3" (a-c)	A	A	A				A	A
SL057R 0-3" (c)	A	A	A				A	A
SL058 0-3" (a,c)	A	A	A				A	A
SL059 0-3" (a-c)	A	A	A				A	A
SL060 0-3" (c)	A	A	A				A	A
SL061 0-3" (c)	A	A	A				A	A
SL061R 0-3" (b,c)	A	A	A				A	A
SL062 0-3" (c)	A	A	A				A	A
SL062R 0-3" (b,c)	A	A	A				A	A
SLRP001 (b,c)	A	A	A				A	A
TB007 (c)	A	A	A				A	A
SLRP001MS (c)	A	A	A				A	A
SLRP001MSD (c)	A	A	A				A	A

(a) These compounds had % Difference (%D) greater than 25 %D and less than 50 %D. Qualify all positive results as estimated (J).
(b) These compounds did not meet the EICP internal standard peak area Quality Assurance/Quality Control (QA/QC) criteria. Qualify all positive results as estimated (J), qualify all non-detects as estimated (UJ), and qualify all rejected as (R).
(c) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL)

Note: A = acceptable under Contract Laboratory Validation Requirements

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32342

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor >=05%	Initial Calibration Relative Standard Deviation >=30%	Continuing (a) Calibration >=25% & <=50% Relative Response Factor and %Difference	Internal Standards	Positive (b) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SLFB01 (a,b)	A	A	A	Bromomethane	A	Methylene chloride	A	A
SLEB01 (a,b)	A	A	A	cis-1,3-Dichloropropene	A	Acetone	A	A
SL034 9-11' (a,b)	A	A	A	Dibromochloromethane	A	Chloromethane	A	A
SLRP001 9-11' (a,b)	A	A	A	trans-1,3-Dichloropropene	A		A	A
SLRP00 9'11' MS (a,b)	A	A	A	Bromoform	A		A	A
SLRP001 9-11" MSD (a,b)	A	A	A	1,1,2,2-Tetrachloroethane	A		A	A
SLTB001 (a,b)	A	A	A	Acetone	A		A	A
	A	A	A	2-Hexanone	A		A	A
	A	A	A	Methylene chloride	A		A	A
	A	A	A	Vinyl acetate	A		A	A
	A	A	A	Bromodichloromethane	A		A	A
	A	A	A	2-Butanone	A		A	A
	A	A	A	Chloroethane	A		A	A
	A	A	A	4-Methyl-2-pentanone	A		A	A

(a) These compounds had % Difference (%D) greater than 25 %D and less than 50 %D. Qualify all positive results as estimated (J).
(b) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32349

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding (a) Time	Initial (b) Calibration Relative Response Factor > =05%	Initial (c) Calibration Relative Standard Deviation > =30%	Continuing (d) Calibration > =25% & < =50% Relative Response Factor and %Difference	Internal Standards	Positive (e) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SLEB002 (e)	A	2-Butanone	Acetone	Bromomethane	A	Methylene chloride	A	A
SL035 9'11' (d,e)	A			cis-1,3-Dichloropropene	A	Acetone	A	A
SL039 10-12' (d,e)	A			Dibromochloromethane	A	Bromomethane	A	A
SL040 9-11' (d,e)	A			trans-1,3-Dichloropropene	A	Chloromethane	A	A
SL043 5-7' (d,e)	A			Bromoform	A		A	A
SL044 7-9' (a,b,c,e)	A			1,1,2,2-Tetrachloroethane	A		A	A
SL047 3-5' (b,c,e)	A			Acetone	A		A	A
SL047 3-5' DL (b,c,e)	A			2-Hexanone	A		A	A
SLTB002 (e)	A			Methylene chloride	A		A	A
	A			Vinyl acetate	A		A	A
	A			2-Butanone	A		A	A

(a) All holding were met except sample SL044 7-9" exceeded the analysis holding time by one day. No qualifications required.
(b) This compound had Relative Response Factor (RRF) less than 0.05 percent. Qualify all positive results as estimated (J) and reject all non-detects (R).
(c) For positive concentrations estimated (J), %Relative Standard Deviations (%RSD) were greater than 50 percent and less than 90 percent.
(d) For concentrations with % Difference (%D) greater than 25 percent but less than 50 percent, qualify all positive results as estimated (J). For non-detect concentrations with RRF less than 0.05, qualify as rejected (R).
(e) These compounds have been qualified for blank contamination The qualifications are for all the blanks, no action, non-detect (U), or Contract Required Quantitation Limit (CRQL)

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32362

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding (a) Time	Initial (b) Calibration Relative Response Factor > =05%	Initial (c) Calibration Relative Standard Deviation > =30%	Continuing Calibration > =25% & < =50% Relative Response Factor and %Difference	Internal Standards	Positive (e) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SLTB003 (a,e,f)	A	2-Butanone	Acetone	Acetone	A	Methylene chloride	A	A
SLEB003 (a,e)	A			2-Butanone	A	Acetone	A	A
SL100 4-6' (a,d,e)	A			cis-1,3-Dichloropropene	A	Chloromethane	A	A
SL098 7-9' (a,d,e)	A			trans-1,3-Dichloropropene	A	Bromomethane	A	A
SL097 1-3' A (a,b,c,e)	A			Chloromethane	A		A	A
SL097 7-9 (a,d,e)	A			Methylene chloride	A		A	A
SL099 5-7' (a,d,e)	A			Chloroethane	A		A	A

(a) All holding were met except sample SL044 7-9" exceeded the analysis holding time by one day. No qualifications required.
(b) For compounds with Relative Response Factor (RRF) less than 0.05, qualify all positive results as estimated (J) and reject all non-detects (R).
(c) For compounds with % Relative Standard Deviation (%RSD) greater than 50 percent but less than 90 percent. Qualify all positive results as estimated (J) and qualify all non-detects as estimated (UJ).
(d) For Positive concentrations qualified as (J) estimated, the RRFs were less than 0.05 or % Differences (%Ds) were greater than 25 percent and less than 50 percent or %Ds were greater than 50 percent and less than 90 percent. For Non-detect concentrations qualified as (US), %Ds were greater than 50 percent less than 90 percent. For non-detect concentrations qualified as Rejected (R), the RRFs were less than 0.05.
(e) These compounds have been qualified for blank contamination The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32374

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding (a) Time	Initial (b) Calibration Relative Response Factor > =05%	Initial (c) Calibration Relative Standard Deviation > =30%	Continuing (d) Calibration > =25% & < =50% Relative Response Factor and %Difference	Internal Standards	Positive (e) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SLTB004 (a,c)	A	2-Butanone	Acetone	Acetone	A	Methylene chloride	A	None analyzed
SLEB004 (a,c)	A			2-Butanone	A	Acetone	A	
SL083 0-3" (a,d,e)	A			Bromoform	A	Chloromethane	A	
SL083 5-7' (a,b,d)	A			cis-1,3-Dichloropropene	A	Bromomethane	A	
SL082 0-3" (d,e)	A			trans-1,3-Dichloropropene	A		A	
SL082 3-5' (d,e)	A			Chloromethane	A		A	
SL082 3-5' DL/RE (a,b,c,d)	A			Methylene chloride	A		A	
SL079 0-3" (d,e)	A			Chloroethane	A		A	
SL079 4-6' (d,e)	A				A		A	

(a) All holding times exceeded the 10-day Organic Functional Guidelines and the Contract Laboratory Program (CLP Statement of Work (SOW). However, all samples were analyzed within 14 days of collection, so qualifications are not required.

(b) For compounds with Relative Response Factor (RRF) less than 0.05, qualify all positive results as estimated (J) and reject all non-detects (R).

(c) For compounds with % Relative Standard Deviation (%RSD) greater than 50 percent but less than 90 percent, qualify all positive results as estimated (J) and qualify all non-detects as estimated (UJ).

(d) For Positive concentrations qualified as (J) estimated, the RRFs were less than 0.05 or % Differences (%Ds) were greater than 25 percent and less than 50 percent or %Ds were greater than 50 percent and less than 90 percent. For Non-detect concentrations qualified as (US), %Ds were greater than 50 percent less than 90 percent. For non-detect concentrations qualified as Rejected (R), the RRFs were less than 0.05.

(e) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, no action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note· A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32376

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding (a) Time	Initial Calibration Relative Response Factor > =05%	Initial Calibration Relative Standard Deviation > =30%	Continuing (b) Calibration > =25% & < =50% Relative Response Factor and %Difference	Internal Standards	Positive (c) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SLTB005 (a,b)	A	A	A	Acetone	A	Methylene chloride	A	A
SLEB005 (a,b)	A	A	A	2-Butanone	A	Acetone	A	A
SL074 0-3" (a,b)	A	A	A	Bromoform	A		A	A
SL074 5-6' (a,b)	A	A	A		A		A	A
SL077 0-3" (a,b)	A	A	A		A		A	A
SL077 4-5' (a,b)	A	A	A		A		A	A
SL053 4-6' (a,b,c)	A	A	A		A		A	A
SL081 0-3" (a,b)	A	A	A		A		A	A
SL081 3-5' (a,b,c)	A	A	A		A		A	A

(a) All holding times exceeded the 10-day Organic Functional Guidelines and the Contract Laboratory Program (CLP) Statement of Work (SOW). However, all samples were analyzed within 14 days of collection, so qualifications are not required.

(b) For Positive concentrations qualified (J) estimated, the Relative Response Factors (RRFs) were less than 0.05 or % Differences (%Ds) were greater than 25 percent but less than 50 percent. For Non-detects, qualified as rejected (R), the RRFs were less than 0.05.

(c) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note: A = acceptable under Contract Laboratory Validation Requirements

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32384

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial (a) Calibration Relative Response Factor > =05%	Initial (b) Calibration Relative Standard Deviation > =30%	Continuing (c) Calibration > =25% & < =50% Relative Response Factor and %Difference	Internal Standards	Positive (d) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SL072 0-3" (c,d)	A	2-Butanone	Acetone	Bromochloromethane	A	Chloromethane	A	None submitted
SL073 0-3" (c,d)	A			Bromoform	A	Bromomethane	A	
SL072 5-7' (c,d)	A			1,1,2,2-Tetrachloroethane	A	Acetone	A	
SL073 4-6' (c,d)	A			Acetone	A	Methylene chloride	A	
SL011 2-4' (c,d)	A			2-Butanone	A		A	
SL013 2-4' (c,d)	A			Chloromethane	A		A	
SL024 2-4' (c,d)	A			2-Hexanone	A		A	
SL022 2-4' (a,b,d)	A			Methylene chloride	A		A	
SL026 2-4' (c,d)	A			cis-1,3-Dichloropropene	A		A	
SL052 1-2' (c,d)	A			trans-1,3-Dichloropropene	A		A	
SL050 2-4' (c,d)	A			Chloroethane	A		A	
SL066 0-3" (c,d)	A			Vinyl acetate	A		A	
SL066 2-4' (c,d)	A						A	

(a) This compound had Relative Response Factor (RRF) less than 0.05 percent. Qualify all positive results as estimated (J) and reject all non-detects (R)
(b) For positive concentrations qualified (J) estimated, the % Relative Standard Deviation (%RSD) was greater than 30 percent.
(c) For Positive concentrations qualified as (J) estimated, the RRFs were less than 0.05 or % Differences (%Ds) were greater than 25 percent and less than 50 percent or %Ds were greater than 50 percent and less than 90 percent. For Non-detect concentrations qualified as (US), %Ds were greater than 50 percent less than 90 percent. For non-detect concentrations qualified as Rejected (R), the RRFs were less than 0.05.
(d) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32397

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial (a) Calibration Relative Response Factor >=05%	Initial (a) Calibration Relative Standard Deviation >=30%	Continuing (b) Calibration >=25% & <=50% Relative Response Factor and %Difference	Internal (c) Standards	Positive (d) Detects Method Blanks	Surrogate (e) Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SL088 0-3" (a,b,d)	A	2-Butanone	Chloromethane	Bromomethane	Chlorobenzene - d_5	Methylene chloride	Toluene -d_8	None submitted
SL089 0-3" (a,b,c,d)	A		Bromoform	trans-1,3-Dichloro-propene		Acetone		
SL089 0-3" RE (a,d,e)	A		cis-1,3-Dichloropropene	Acetone		Chloromethane		
SL091 0-3" (a,d)	A		trans-1,3-Dichloropropene	Chloroethane		Bromomethane		
SL092 0-3" (a,b,d)	A		2-Hexanone	2-Hexanone				
SL093 0-3" (a,b,d)	A		4-Methyl-2-pentanone	4-Methyl-2-pentanone				
SL094 0-3" (a,b,d)	A		Vinyl Acetate	2-Butanone				
SL063 0-3" (a,b,d)	A			1,2-Dichloroethane				
SL064 0-3" (a,d)	A			Carbon Tetrachloride				
SLEB007 (a,b,d)	A			Chloromethane				
SLTB012 (b,d)	A			Vinyl acetate				
	A			1,2-Dichloroethane-d_4				

(a) Qualification not required because samples were not analyzed after the initial calibration.
(b) For Positive concentrations qualified as (J) estimated, the Relative Response Factors (RRFs) were less than 0 05 or % Differences (%Ds) were greater than 25 percent and less than 50 percent. For Non-detect concentrations qualified as rejected (R), the RRFs were less than 0.05.
(c) Qualify all positive results as estimated (J) and all non-detects as estimated (UJ).
(d) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL)
(e) This sample exhibited a recovery for toluene -d_8 above the Quality Assurance/Quality Control limits. Qualify all positive results estimated (J).

Note. A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32408

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding (a) Time	Initial (b) Calibration Relative Response Factor >=05%	Initial (b) Calibration Relative Standard Deviation >=30%	Continuing (c) Calibration >=25% & <=50% Relative Response Factor and %Difference	Internal Standards	Positive (d) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SL068 0-3" (a,b,d)	A	A	Chloromethane	Acetone	A	Acetone	A	None submitted
SL070 0-3" (a,b,d)	A	A			A	Methylene chloride	A	
SL085 0-3" (a,b,c)	A	A			A		A	

(a) All holding times exceeded the 10-day Organic Functional Guidelines and the Contract Laboratory Program (CLP) Statement of Work (SOW) However, all samples were analyzed within 14 days of collection, so qualifications are not required.
(b) Qualification not required because samples were not analyzed after the initial calibration.
(c) For positive concentrations estimated (J), the % Differences (%Ds) were greater than 25 percent but less than 50 percent.
(d) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note: A = acceptable under Contract Laboratory Validation Requirements

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32415

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding (a) Time	Initial (b) Calibration Relative Response Factor >=05%	Initial (b) Calibration Relative Standard Deviation >=30%	Continuing (c) Calibration >=25% & <=50% Relative Response Factor and %Difference	Internal Standards	Positive (d) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SLRP007 0-3" (a,c)	A	A	Chloromethane	Acetone	A	Acetone	A	A
SL075 0-3" (a,c,d)	A	A			A	Methylene Chloride	A	A
SL080 0-3" (a,c)	A	A			A		A	A
SLRP006 0-3" (a,d)	A	A			A		A	A
SLRP006 0-3" MS (a,c)	A	A			A		A	A
SLRP006 0'3" MSD (a,c)	A	A			A		A	A
SL086 0-3" (a,c)	A	A			A		A	A
SLRP008 0-3" (a,c)	A	A			A		A	A
SL095 0-3" (a)	A	A			A		A	A
SL069 0-3" (a,d)	A	A			A		A	A
SL069 1-2' (a,d)	A	A			A		A	A

(a) All holding times exceeded the 10-day Organic Functional Guidelines and the Contract Laboratory Program (CLP) Statement of Work (SOW). However, all samples were analyzed within 14 days of collection, so qualifications are not required.
(b) Qualification not required because samples were not analyzed after the initial calibration.
(c) For positive concentrations estimated (J), the % Differences (%Ds) were greater than 25 percent but less than 50 percent.
(d) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32416

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding (a) Time	Initial (b) Calibration Relative Response Factor > =05%	Initial (b) Calibration Relative Standard Deviation > =30%	Continuing (c) Calibration > =25% & < =50% Relative Response Factor and %Difference	Internal Standards	Positive (d) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SL090 0-3" (a,b,d)	A	A	Chloromethane	Acetone	A	Acetone	A	None submitted
SL084 0-3" (a-d)	A	A			A	Methylene chloride	A	A
SL076 0-3" (a-d)	A	A			A		A	A
SL071 0-3" (a-d)	A	A			A		A	A
SL067 0-3" (a-d)	A	A			A		A	A
SL065 0-3" (a-d)	A	A			A		A	A
SLEB008 (a-d)	A	A			A		A	A
SLTB013 (a-d)	A	A			A		A	A

(a) All holding times exceeded the 10-day Organic Functional Guidelines and the Contract Laboratory Program (CLP) Statement of Work (SOW). However, all samples were analyzed within 14 days of collection, so qualifications are not required.
(b) Qualification not required because samples were not analyzed after the initial calibration.
(c) For positive concentrations estimated (J), the % Differences (%Ds) were greater than 25 percent but less than 50 percent
(d) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32422

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	(a) Holding Time	Initial (b) Calibration Relative Response Factor >=05%	Initial (b) Calibration Relative Standard Deviation >=30%	Continuing (c) Calibration >=25% & <=50% Relative Response Factor and %Difference	Internal Standards	Positive (d) Detects Method Blanks	Surrogate (e) Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SL087 0-3" (a,b,c,d)	A	2-Butanone	Bromoform	2-Butanone	A	Acetone	Toluene -d_8	A
SL096 0-3" (a-d)	A		cis-1,3-Dichloropropene	cis-1-3-Dichloropropene	A	Methylene chloride		A
SLRP002 0-3" (a,b,d)	A		trans-1,3-Dichloropropene	trans-1,3-Dichloropropene	A			A
SLRP002 0-3" MS (a,b)	A		2-Hexanone	Chloromethane	A			A
SLRP002 0-3" MSD (a,b)	A		4-Methyl-2-pentanone	Methylene chloride	A			A
SL096 2-4' (a-e)	A		Vinyl acetate	Chloroethane	A			A
SL096 2-4' RE (a,b,d,e)	A			Bromomethane	A			A
SLRP003 2-4 (a-d)	A			Acetone	A			A
SLRP003 2-4 MS (a,b)	A			2-Hexanone	A			A
SLRP003 2-4 MSD (a,b)	A			4-Methyl-2-pentanone	A			A
SLRP003 2-4' MSR (a,b)	A			1,1,2-Trichloroethane	A			A
SLRP003 2-4' MSDR (a,b,e)	A			Bromoform	A			A
SL27001 0-3" (a-d)	A			1,1,2,2-Tetrachloroethane	A			A
SL27001 2-4' (a-d)	A				A			A
SL27002 0-3" (a-d)	A				A			A
SL27002 2-4' (a-d)	A				A			A
SL27003 0-3" (a-d)	A				A			A
SL27003 2-4' (a-d)	A				A			A

See notes at bottom of table on next page.

(Continued)
Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results, Sample Delivery Group 32422

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	(a) Holding Time	Initial (b) Calibration Relative Response Factor > =05%	Initial (b) Calibration Relative Standard Deviation > =30%	Continuing (c) Calibration > =25% & < =50% Relative Response Factor and %Difference	Internal Standards	Positive (d) Detects Method Blanks	Surrogate (e) Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SL27004 0-3" (a-d)	A				A			A
SL27004 2-4" (a-d)	A				A			A
SL27005 0-3" (a-d)	A				A			A
SL27005 2-4' (a-d)	A				A			A
SL27006 0-3" (a-d)	A				A			A
SL27006 2-4' (a-d)	A				A			A
SL27007 0-3" (a-d)	A				A			A
SL27007 2-4' (a-d)	A				A			A
SL27008 0-3" (a-d)	A		A		A			A

(a) All holding times exceeded the 10-day Organic Functional Guidelines and the Contract Laboratory Program (CLP) Statement of Work (SOW). However, all samples were analyzed within 14 days of collection, so qualifications are not required.
(b) Qualification not required because samples were not analyzed after the initial calibration.
(c) For Positive concentrations qualified as (J) estimated, the RRFs were less than 0.05 or % Differences (%Ds) were greater than 25 percent and less than 50 percent or %Ds were greater than 50 percent and less than 90 percent. For Non-detect concentrations qualified as (US), %Ds were greater than 50 percent less than 90 percent. For non-detect concentrations qualified as Rejected (R), the RRFs were less than 0.05.
(d) These compounds have been qualified for blank contamination The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).
(e) This sample exhibited a recovery for toluene -d_8 above the Quality Assurance/Quality Control limits. Qualify all positive results as estimated (J).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Volatile Organic Soil Analytical Results for Sample Delivery Group 32423

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	(a) Holding Time	Initial (b) Calibration Relative Response Factor >=05%	Initial (b) Calibration Relative Standard Deviation >=30%	Continuing (c) Calibration >=25% & <=50% Relative Response Factor and %Difference	Internal (d) Standards	Positive (e) Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/Matrix Spike Duplicate Recoveries
SL27008 2-4' (b,c,e)	A	2-Butanone	trans-1,3-Dichloro-propene	Bromomethane	Chlorobenzene -d_5	Chloromethane	A	A
SL27009 0-3" (b,c,e)	A		2-Hexanone	trans-1,3-Dichloropropene		Acetone	A	A
SL27009 2-4' (b,c,e)	A		4-Methyl-2-pentanone	Bromoform		Methylene chloride	A	A
SL27010 0-3" (b,d,e)	A		Vinyl acetate	Acetone		Bromomethane	A	A
SL27010 2-4' (b,e)	A			Chloroethane			A	A
SL27011 0-3" (b,e)	A			2-Hexanone			A	A
SL27011 2-4' (b,c,e)	A			4-Methyl-2-pentanone			A	A
SL27RP004 2-4' (b,e)	A			2-Butanone			A	A
SLMS004 2-4' (b,c,e)	A			1,1,2-Trichloroethane			A	A
SLMSD004 2-4' (b,c,e)	A			1,1,2,2-Tetrachloroethane			A	A
SLEB006 (b,c,e)	A			Vinyl acetate			A	A
SLTB006 (b,c,e)	A			Chloromethane			A	A
SLTB008 (b,c,e)	A						A	A
SLTB009 (b,c,e)	A						A	A
SLTB010 (b,c,e)	A						A	A
SLTB011 (b,c,e)	A						A	A
SL032 2-4' (a,b,c,e)	NA						A	A
SL041 3-4' (a,b,c,e)	NA						A	A
SLRP005 1-2' (b,e,)	A						A	A
SLMS005 1-2' (a,b,c,e)	NA						A	A
SLMSD005 1-2 (a,b,c,e)	NA						A	A
SL048 1-2' (b,e)	A						A	A
SLTB007 (b,c,e)	A						A	A

(a) Holding times exceeded 14 days from collection (by 1, 2, or 3 days). Qualifying all positive results as estimated (J).
(b) Qualifications not required because samples were not analyzed after the initial calibration.
(c) For Positive concentrations qualified as (J) estimated, the RRFs were less than 0.05 or % Differences (%Ds) were greater than 25 percent and less than 50 percent or %Ds were greater than 50 percent and less than 90 percent. For Non-detect concentrations qualified as (US), %Ds were greater than 50 percent less than 90 percent. For non-detect concentrations qualified as Rejected (R), the RRFs were less than 0.05.
(d) For positive concentrations, qualify as estimated (J) and qualify all non-detects as estimated (UJ)
(e) These compounds have been qualified for blank contamination. The qualifications are for all the blanks, non-action, non-detect (U), or Contract Required Quantitation Limit (CRQL).

Note: A = acceptable under Contract Laboratory Validation Requirements.
NA = not acceptable under Contract Laboratory Validation Requirements.

Appendix E-2
Semivolatile Organics in Soil, Data Validation Summaries

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 20492

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor >=.05%	Initial Calibration Relative Standard Deviation (RSD) >=30%	Continuing (a) Calibration >=25% & <=50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SL068 (a)(b)	A	A	A	4-nitrophenol	A	TICs 1,2,3,4,5,6,	A	A
SL068MS	A	A	A	benzo(k)fluoranthene	A	8,10,11	A	A
SL068MSD	A	A	A	2-nitroaniline	A		A	A
SL068R	A	A	A	bis(2-chloroisopropyl)ether	A		A	A
SL073 (a)(b)	A	A	A	3,3'-dichlorobenzidine	A		A	A
RP068 (a)(b)	A	A	A	benzoic acid	A		A	A
RP068R	A	A	A	bis(2-chloroethyl)ether	A		A	A
SL070 (a)(b)	A	A	A	diethylphthalate	A		A	A
SL070R	A	A	A		A		A	A
SL074 (a)(b)	A	A	A		A		A	A
FB (a)	A	A	A		A		A	A
EB (a)	A	A	A		A		A	A
TB	A	A	A		A		A	A
SL021	A	A	A		A		A	A
SL104	A	A	A		A		A	A
SL106	A	A	A		A		A	A
SL102	A	A	A		A		A	A
SL105	A	A	A		A		A	A
SL101	A	A	A		A		A	A
SL015	A	A	A		A		A	A
SL103	A	A	A		A		A	A
SL107	A	A	A		A		A	A

(a) Samples contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J) Samples SL068, SL073, RP068, SL070 and SL074 contained compounds with % Differences greater than 50 percent but less tha 90 percent. All positive results are estimated (J) and all non detects are estimated (UJ).

(b) These samples were rejected (R) due to method blank contamination.

Note. A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 20502

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > = .05%	Initial Calibration Relative Standard Deviation (RSD) > = 30%	Continuing (a) Calibration > = 25% & < = 50% RSD and %Difference	Internal Standards	Positive Detects Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
EB (a)	A	A	A	pyrene	A	A	A	A
FB	A	A	A	benzo(k)fluoranthene	A	A	A	A
RP040 (a)	A	A	A	2-nitroaniline	A	A	A	A
SL040 (a)	A	A	A	bis(2-chloroisopropyl)ether	A	A	A	A
SL040MS (a)	A	A	A	terphenyl-d14	A	A	A	A
SL040MSD (a)	A	A	A	4-nitrophenol	A	A	A	A
				bis(2-chloroethyl)ether				
				benzoic acid				
				diethylphthalate				
				phenol-d5				

(a) Samples contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J). Samples EB, SL040, RP040, SL040MS and SL040MSD contained compounds with % Differences greater than 50 percent but less than 90 percent Positive results were estimated (J) and non detects were estimated (UJ).

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 20803

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > =.05%	Initial Calibration Relative Standard Deviation (RSD) > =30%	Continuing (a) Calibration > =25% & < =50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SW006 (b)	A	A	A	benzoic acid	A	di-n-butylphtalate	A	A
SD006 (a)(b)	A	A	A	2-nitroaniline	A	bis(2-ethylhexyl)phthalate	A	A
SD006DL	A	A	A	4-nitrophenol	A	TICs 1,2	A	A
SW007 (b)	A	A	A		A		A	A
SD007 (a)(b)	A	A	A		A		A	A
SD007DL	A	A	A		A		A	A
SW005 (a)(b)	A	A	A		A		A	A
SD005 (a)(b)	A	A	A		A		A	A
SD005DL	A	A	A		A		A	A
SWRP001 (b)	A	A	A		A		A	A
SDRP001 (a)	A	A	A		A		A	A
SDRP001DL	A	A	A		A		A	A
TB001	A	A	A		A		A	A
EB001 (b)	A	A	A		A		A	A
FB001 (a)(b)	A	A	A		A		A	A
SWRP001MS (a)	A	A	A		A		A	A
SWRP001MSD (a)	A	A	A		A		A	A
SDRP001MS (a)	A	A	A		A		A	A
SDRP001MSD (a)	A	A	A		A		A	A

(a) Samples contained compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J)
(b) These samples were qualified for blank contamination less than the sample CRQL and less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported. Samples also have been qualified for Tentatively Identified Compound contamination.

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 20847

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > =.05%	Initial Calibration Relative Standard Deviation (RSD) > =30%	Continuing (a) Calibration > =25% & < =50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SL056 (a)(b)	A	A	A	3-nitroaniline	A	TICs 1,2,6,7,8,9	A	A
SL056R	A	A	A	bis(2-chloroethoxy)methane	A		A	A
SL057 (a)(b)	A	A	A	bis(2-chlorisopropyl)ether	A		A	A
SL057R	A	A	A	hexachlorobenzene	A		A	A
SL058 (a)(b)	A	A	A	benzo(b)fluoranthene	A		A	A
SL059 (a)(b)	A	A	A	indeno(1,2,3-cd)pyrene	A		A	A
SL059R	A	A	A	dibenzo(a,h)anthracene	A		A	A
SL060 (a)(b)	A	A	A	2-nitroaniline	A		A	A
SL061 (a)(b)	A	A	A	4-nitroaniline	A		A	A
SL061DL	A	A	A	2,4-dinitrophenol	A		A	A
SL061R	A	A	A	benzoic acid	A		A	A
SL062 (a)(b)	A	A	A	4-nitrophenol	A		A	A
SL062R	A	A	A	4-methylphenolA	A		A	A
SLRP001 (b)	A	A	A	n-nitroso-di-propylamine	A		A	A
TB007	A	A	A	phenol-d5	A		A	A
SLRP001MS (a)	A	A	A	4,6-dinitro-2-methylphenol	A		A	A
SLRP002MSD (a)	A	A	A	butylbenzylphthalate	A		A	A
				2-fluorophenol				
				bis(2-ethylhexyl)phthalate				

(a) Samples contained the listed compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J) Samples SLRP001MS and SLRP001MSD contained compounds with % Differences greater than 50 percent but less than 90 percent. Qualify all positive results as estimated (J) and all non detects as estimated (UJ)

(b) These samples have been qualifed for Tentatively Identified Compound contamination.

Note. A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32342

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor >=.05%	Initial Calibration Relative Standard Deviation (RSD) >=30%	Continuing (a) Calibration >=25% & <=50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SLFB-01 (b)	A	A	A	hexachlorobenzene	A	n-nitrosodiphenylamine	A	A
SLEB-01 (b)	A	A	A	4-nitroaniline	A	bis(2-ethylhexyl)phthalate	A	A
SL034 9-11' (a)(b)	A	A	A	2,4,6-tribromophenol	A	TICs 1,2,3,4,19	A	A
SLRP001 9-11' (a)(b)	A	A	A		A		A	A
SLRP001 9-11' MS (a)(b)	A	A	A		A		A	A
SLRP001 9-11' MSD (a)(b)	A	A	A		A		A	A
SLTB001	A	A	A		A		A	A

(a) Samples contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J).
(b) These samples have been qualified for blank contamination less than the CRQL and less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for than analyte is reported. Samples also have been qualified for Tentatively Identified Compound contamination.

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32349

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > = .05%	Initial Calibration Relative Standard Deviation (RSD) > = 30%	Continuing (a) Calibration > = 25% & < = 50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SLEB002 (a)(b)	A	A	A	2,4,6-tribromophenol	A	n-nitrosodiphenylamine	A	A
SL035 9-11' (a)(b)	A	A	A	hexachlorobenzene	A	TICs 1,2,3,4,5,6,7,8	A	A
SL039 10-12' (a)(b)	A	A	A	4-nitroaniline	A		A	A
SL040 9-11' (a)(b)	A	A	A	4-chloroaniline	A		A	A
SL043 5-7' (a)(b)	A	A	A	indeno(1,2,3-cd)pyrene	A		A	A
SL044 7-9' (a)	A	A	A	2-nitroaniline	A		A	A
SL044 7-9' DL (a)(b)	A	A	A	2,4-dinitrophenol	A		A	A
SL047 3-5' (a)(b)	A	A	A	4-nitrophenol	A		A	A
SL047 3-5 DL	A	A	A	benzo(k)fluoranthene	A		A	A
SLTB002	A	A	A	4,6-dinitro-2-methylphenol	A		A	A

(a) Samples listed contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J). Sample SL044 7-9' DL contained compounds greater than 50 percent but less than 90 percent Qualify positive results as estimated (J) and non detects as estimated (UJ).

(b) These samples have been qualified for blank contamination less than the CRQL and less than 10X the method blank value The sample result for the blank contaminant is rejected and the CQRL for that analyte is reported. Samples also have qualified for Tentatively Identified Compound contamination.

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32362

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > = .05%	Initial Calibration Relative Standard Deviation (RSD) > = 30%	Continuing (a) Calibration > = 25% & < = 50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SLTB003	A	A	A	2,4,6-Tribromophenol	A	n-Nitrosodipehnylamine	A	A
SLEB003 (a)(b)	A	A	A	hexachlorobenzene	A		A	A
SL100 4-6' (a)(b)	A	A	A	4-nitroaniline	A		A	A
SL098 7-9' (a)(b)	A	A	A	4-chloroaniline	A		A	A
SL097 1-3' A (a)(b)	A	A	A	indeno(1,2,3-cd)pyrene	A		A	A
SL097 7-9' (a)(b)A	A	A	A	2-nitroaniline	A		A	A
SL099 5-7' (a)(b)	A	A	A	2,4-dinitrophenol	A		A	A
SL099 5-7' DL (a)	A	A	A	4-nitrophenol	A		A	A
				benzo(k)fluoranthene				
				4,6-dinitro-2-methylphenol				

(a) Samples contained compounds with % Differences greater than 25% but less than 50 percent. Qualify all positive results as estimated (J). Sample SL099 5-7' DL contained compounds with % Differences greater than 50 percent but less than 90 percent. Qualify all positive results as estimated (J) and all non detects as estimated (UJ).

(b) These samples have been qualified for Tentatively Identified Compound contamination

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32374

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > =.05%	Initial Calibration Relative Standard Deviation (RSD) > =30%	Continuing (a) Calibration > =25% & < =50% RSD and %Difference	Internal (b) Standards	Positive Detects (c) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SLTBOO4	A	A	A	2,4,6-tribromophenol	perylene-d12	n-nitrosodiphenylamine	A	A
SLEB004 (a)	A	A	A	benzo(k)fluoranthene	acenaphthene-d10	chrysene	A	A
SL083 0-3" (a)(c)	A	A	A	4-chloroaniline	chrysene-d12	TICs 1,2,3,4,5,6,7,8,9,	A	A
SL083 5-7' (a)(c)	A	A	A	2,4-dinitrophenol		10,11,12,14	A	A
SL082 0-3" (a)(c)	A	A	A	4,6-dinitro-2-methylphenol			A	A
SL082 3-5' (a)(b)(c)	A	A	A				A	A
SL082 3-5' DL/RE (a)(b)(c)	A	A	A				A	A
SL079 0-3" (a)(c)	A	A	A				A	A
SL079 4-6' (a)(c)	A	A	A				A	A
SL079 4-6' MS	A	A	A				A	A
SL079 4-6' MSD	A	A	A				A	A

(a) Samples contained comnpounds with % Differences greater than 25 percent but less than 50 percent Qualify all positive results for these compounds as estimated (J). Samples SL083 0-3", SL083 5-7', SL082 3-5' and SL070 0-3" contained compounds with % Differences greater than 50 percent but less than 90 percent. Qualify all positive results for these compounds as estimated (J) and qualify all non detects as estimated (UJ). Qualify all positive results for these compounds as estimated (J) and qualify all non detects as estimated (UJ).

(b) Internal standard areas are greater than +100 percent of the EICP area of the associated calibration standard Qualify all positive results with the non compliant internal standard as estimated (J).

(c) Sample results for blank contamination were less than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported. Samples also have been qualified for Tentatively Identified Compound contamination.

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32376

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > =.05%	Initial Calibration Relative Standard Deviation (RSD) > =30%	Continuing (a) Calibration > =25% & < =50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SLTB005	OK	OK	OK	4-chloroaniline	OK	n-nitrosodiphenylamine	OK	OK
SLEB005 (a)(b)				2-nitroaniline		benzo(a)anthracene		
SL074 0-3" (a)(b)				indeno(1,2,3-cd)pyrene		chrysene		
SL074 5-6' (a)(b)				2,4-dinitrophenol		benzo(k)fluoranthene		
				4-nitrophenol		benzo(b)fluoranthene		
SL077 0-3" (a)(b)				2,4,6-tribromophenol		benzo(a)pyrene		
SL077 4-5' (a)(b)				benzo(k)fluoranthene		bis(2-ethylhexyl)phthalate		
SL053 0-3"						TICs 1,2,3,4,5,6,7,8,9,		
SL053 0-3" DL						10,11,12,13,14,15		
SL053 4-6' (a)(b)								
SL081 0-3" (a)(b)								
SL081 3-5' (a)(b)								

(a) Samples contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results for these compounds as estimated (J).

(b) These samples have been qualified for blank contamination less than the CRQL and less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported. Samples also have been qualified for Tentatively Identified Compound contamination. SL081 3-5', SL077 4-5', and SL053 4-6' have been qualified for Tentatively Identified Compound contamination.

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32384

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > =.05%	Initial Calibration Relative Standard Deviation (RSD) > =30%	Continuing (a) Calibration > =25% & < =50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SL072 0-3" (a)(b)	OK	OK	OK	4-chloroaniline	OK	n-nitrosodiphenylamine	OK	OK
SL073 0-3" (a)(b)				2,4-dinitrophenol		TICs 1,2,3,4,5,6,7,8,9,		
SL011 0-3" (a)(b)				4-nitrophenol		10,11,12,13,14,15,16		
SL013 0-3" (a)				4,6-dintro-2-methylphenol				
SL072 5-7' (a)(b)				2,4,6-tribromophenol				
SL073 4-6' (a)(b)								
SL011 2-4' (a)(b)								
SL013 2-4' (a)(b)								
SL024 0-3" (a)								
SL024 2-4' (a)(b)								
SL022 0-3" (a)								
SL022 2-4' (a)(b)								
SL026 0-3" (a)								
SL026 2-4' (a)(b)								
SL052 0-3" (a)								
SL052 1-2' (a)(b)								
SL050 0-3" (a)								
SL050 2-4' (a)(b)								
SL055 0-3" (a)(b)								
SL066 0-3" (a)(b)								
SL066 2-4' (a)								

(a) Samples contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J)
(b) These samples were qualified for blank contamination less than the CRQL and less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported. Samples also have been qualified for Tentatively Identified Compound contamination

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32397

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > =.05%	Initial Calibration Relative Standard Deviation (RSD) > =30%	Continuing (a) Calibration > =25% & < =50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SL012 0-3"	A	A	A	4-chloroaniline	A	n-nitrosodiphenylamine	A	A
SL014 0-3"	A	A	A	4-nitroaniline	A	bis(2-ethylhexyl)phthalate	A	A
SL015 0-3"	A	A	A	2,4,6-tribromophenol	A	benzo(a)pyrene	A	A
SL016 0-3"	A	A	A	butylbenzylphthalate	A	benzo(b)fluoranthene	A	A
SL017 0-3"	A	A	A	bis(2-ethylhexyl)phthalate	A	benzo(k)fluoranthene	A	A
SL018 0-3"	A	A	A		A	TICs 1,2,3,4,5,6,8	A	A
SL019 0-3"	A	A	A		A		A	A
SL020 0-3"	A	A	A		A		A	A
SL021 0-3"	A	A	A		A		A	A
SL023 0-3"	A	A	A		A		A	A
SL025 0-3"	A	A	A		A		A	A
SL028 0-3"	A	A	A		A		A	A
SL029 0-3"	A	A	A		A		A	A
SL033 0-3"	A	A	A		A		A	A
SL042 0-3"	A	A	A		A		A	A
SL045 0-3"	A	A	A		A		A	A
SL051 0-3"	A	A	A		A		A	A
SL088 0-3" (b)	A	A	A		A		A	A
SL089 0-3" (b)	A	A	A		A		A	A
SL089 2-4' RE	A	A	A		A		A	A
SL091 0-3" (a)(b)	A	A	A		A		A	A
SL092 0-3" (b)	A	A	A		A		A	A
SL093 0-3" (b)	A	A	A		A		A	A
SL094 0-3" (a)(b)	A	A	A		A		A	A
SL063 0-3" (b)	A	A	A		A		A	A
SL064 0-3" (b)	A	A	A		A		A	A
SLRP009 0-3"	A	A	A		A		A	A
SL101 0-3"	A	A	A		A		A	A

See notes at end of table on next page.

(Continued)
Summary of Laboratory Quality Control, Semivolatile Organic Soil Analytical Results
Sample Delivery Group 32397

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > = .05%	Initial Calibration Relative Standard Deviation (RSD) > = 30%	Continuing (a) Calibration > = 25% & < = 50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SLRP010 0-3"	A	A	A		A		A	A
SL102 0-3"	A	A	A		A		A	A
SL102 0-3" MS	A	A	A		A		A	A
SL102 0-3" MSD	A	A	A		A		A	A
SLTB012	A	A	A		A		A	A
SLEB008	A	A	A		A		A	A
SLEB008MS	A	A	A		A		A	A
SLEB008D	A	A	A		A		A	A
SLRP006 0-3"	A	A	A		A		A	A
SLPR006 0-3" MS	A	A	A		A		A	A
SLRP006 0-3" D	A	A	A		A		A	A
SLRP007 0-3"	A	A	A		A		A	A
SLRP008 0-3"	A	A	A		A		A	A
SL068 0-3"	A	A	A		A		A	A
SL069 0-3"	A	A	A		A		A	A
SL069 1-2'	A	A	A		A		A	A
SL070 0-3"	A	A	A		A		A	A
SL075 0-3"	A	A	A		A		A	A
SL080 0-3"	A	A	A		A		A	A
SL085 0-3"	A	A	A		A		A	A
SL086 0-3"	A	A	A		A		A	A
SL095 0-3"	A	A	A		A		A	A

(a) Samples contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results for these compounds as estimated (J).

(b) Samples have been qualified for blank contamination less than the CRQL and less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyted is reported. Samples also have been qualified for Tentatively Identified Compound contamination

Note. A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32408

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > = .05%	Initial Calibration Relative Standard Deviation (RSD) > = 30%	Continuing (a) Calibration > = 25% & < = 50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SL068 0-3" (a)(b)	A	A	A	benzoic acid	A	TICs 1,2,3,4,5,6,7,8	A	A
SL070 0-3" (a)(b)	A	A	A	4-nitrophenol	A		A	A
SL085 0-3" (a)(b)	A	A	A		A		A	A
SL104 0-3"	A	A	A		A		A	A
SL105 0-3"	A	A	A		A		A	A
SL106 0-3"	A	A	A		A		A	A
SL107 0-3"	A	A	A		A		A	A
SL108 0-3"	A	A	A		A		A	A
SL109 0-3"	A	A	A		A		A	A
SL110 0-3"	A	A	A		A		A	A
SL111 0-3"	A	A	A		A		A	A
SL113 0-3"	A	A	A		A		A	A
SL114 0-3"	A	A	A		A		A	A
SL115 0-3"	A	A	A		A		A	A
SL116 0-3"	A	A	A		A		A	A
SL117 0-3"	A	A	A		A		A	A
SL118 0-3"	A	A	A		A		A	A
SL119 0-3"	A	A	A		A		A	A
SL120 0-3"	A	A	A		A		A	A
SL121 0-3"	A	A	A		A		A	A

(a) Samples contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results for these compounds as estimated (J).

(b) Samples have been qualified for Tentatively Identified Compound contamination.

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32415

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor > = .05%	Initial Calibration Relative Standard Deviation (RSD) > = 30%	Continuing (a) Calibration > = 25% & < = 50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SL122 0-3"	A	A	A	butylbenzylphthalate	A	TICs 1,2,3,4,5,6,7,8,11	A	A
SL123 0-3"	A	A	A	bis(2-ethylhexyl)phthalate	A		A	A
SL124 0-3"	A	A	A	benzoic acid	A		A	A
SLRP007 0-3" (a)(b)	A	A	A	4-nitrophenol	A		A	A
SLRP007 0-3" MS	A	A	A		A		A	A
SLRP007 0-3" MSD	A	A	A		A		A	A
SLRP011 0-3"	A	A	A		A		A	A
SL075 0-3" (b)	A	A	A		A		A	A
SL078 0-3"	A	A	A		A		A	A
SL080 0-3" (b)	A	A	A		A		A	A
SLRP006 0-3" (a)(b)	A	A	A		A		A	A
SLRP006 0-3" MS	A	A	A		A		A	A
SLRP006 0-3" MSD	A	A	A		A		A	A
SL086 0-3" (b)	A	A	A		A		A	A
SLRP008 0-3" (b)	A	A	A		A		A	A
SL095 0-3" (b)	A	A	A		A		A	A
SL112 0-3"	A	A	A		A		A	A
SLRP012 0-3"	A	A	A		A		A	A
SL125 0-3"	A	A	A		A		A	A
SL126 0-3"	A	A	A		A		A	A
SL127 0-3"	A	A	A		A		A	A
SL069 0-3" (b)	A	A	A		A		A	A
SL069 1-2' (a)(b)	A	A	A		A		A	A

(a) Samples contained compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J).
(b) Samples have been qualified for Tentatively Identified Compound contamination.

Note: A = acceptable under Contract Laboratory Requirements

Summary of Laboratory Quality Control Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32416

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor >=.05%	Initial Calibration Relative Standard Deviation (RSD) >=30%	Continuing (a) Calibration >=25% & <=50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SLRP013 0-3"	A	A	A	4-chloroaniline	A	n-nitrosodiphenylamine	A	A
SLRP013 0-3" MS	A	A	A	4-nitrophenol	A	bis(2-ethylhexyl)phthalate	A	A
SLRP013 0-3" MSD	A	A	A	2,4,6-tribromophenol	A	benzo(k)fluoranthene	A	A
SL090 0-3" (a)(b)	A	A	A	butylbenzylphthalate	A	TICs 1,2,3,4,6,8,10,11	A	A
SL090 0-3" MS	A	A	A	bis(2-ethylhexyl)phthalate	A		A	A
SL090 0-3" D	A	A	A		A		A	A
SL084 0-3" (a)(b)	A	A	A		A		A	A
SL076 0-3" (a)(b)	A	A	A		A		A	A
SL071 0-3" (a)(b)	A	A	A		A		A	A
SL067 0-3" (a)(b)	A	A	A		A		A	A
SL065 0-3" (a)(b)	A	A	A		A		A	A
SLEB008 (a)(b)	A	A	A		A		A	A
SLEB008MS	A	A	A		A		A	A
SLEB008MSD	A	A	A		A		A	A
SLTB013	A	A	A		A		A	A
SLRP009 0-3"	A	A	A		A		A	A
SLRP009 0-3" MS	A	A	A		A		A	A
SLRP009 0-3" D	A	A	A		A		A	A

(a) Samples contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J).
(b) Samples have been qualified for blank and Tentatively Identified Compound contamination.A

Summary of Laboratory Quality Control Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32422

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Initial Calibration Relative Response Factor >=.05%	Initial Calibration Relative Standard Deviation (RSD) >=30%	Continuing (a) Calibration >=25% & <=50% RSD and %Difference	Internal Standards	Positive Detects (b) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SL087 0-3" (a)(b)	A	A	A	4-chloroaniline	A	n-nitrosodiphenylamine	A	A
SL096 0-3" (a)(b)	A	A	A	2,4-dinitrophenol	A	TICs 1,2,3,4,5,6,7,8,	A	A
SLRP002 0-3" (a)(b)	A	A	A	4-nitroaniline	A	9,10,11,12,13	A	A
SLRP002 0-3" MS (a)(b)	A	A	A	2,4,6-tribromophenol	A	A	A	A
SLRP002 0-3" MSD (a)(b)	A	A	A	bis(2-chloroisopropyl)ether	A	A	A	A
SL096 2-4" (a)(b)	A	A	A	benzo(k)fluoranthene	A	A	A	A
SL096 2-4' RE	A	A	A	indeno(1,2,3-cd)pyrene	A	A	A	A
SLRP003 2-4' (a)(b)	A	A	A		A	A	A	A
SLRP003 2-4' MS (a)(b)	A	A	A		A	A	A	A
SLRP003 2-4' MSD (a)(b)	A	A	A		A	A	A	A
SLRP003 2-4' MSR	A	A	A		A	A	A	A
SLRP003 2-4' MSDR	A	A	A		A	A	A	A
SL27001 0-3" (a)(b)	A	A	A		A	A	A	A
SL27001 2-4' (a)(b)	A	A	A		A	A	A	A
SL27002 0-3" (b)	A	A	A		A	A	A	A
SL27002 2-4' (a)(b)	A	A	A		A	A	A	A
SL27003 0-3" (a)(b)	A	A	A		A	A	A	A
SL27003 2-4' (a)(b)	A	A	A		A	A	A	A
SL27004 0-3" (a)(b)	A	A	A		A	A	A	A
SL27004 2-4' (a)(b)	A	A	A		A	A	A	A
SL27005 0-3" (a)(b)	A	A	A		A	A	A	A
SL27006 0-3" (a)(b)	A	A	A		A	A	A	A
SL27006 0-3" (a)(b)	A	A	A		A	A	A	A
SL27006 2-4' (a)(b)	A	A	A		A	A	A	A
SL27007 0-3" (a)(b)	A	A	A		A	A	A	A
SL27007 2-4' (a)(b)	A	A	A		A	A	A	A
SL27008 0-3" (a)(b)	A	A	A		A	A	A	A

(a) Samples contained the following compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all results as estimated (J) Samples SL087 0-3", SL096 2-4', SLRP003 2-4', SL27001 0-3" and SL27001 2-4' contained compounds with % Differences greater than 50 percent but less than 90 percent. Qualify all positive results as estimated (J) and qualify all non detects as estimated (UJ).

(b) Samples have been qualified for blank contamination less than the CRQL and less then 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported Samples also have been qualified for Tentatively Identified Compound contamination.

Note: A = acceptable under Contract Laboratory Requirements

Summary of Laboratory Quality Control Semivolatile Organic Soil Analytical Results, Sample Delivery Group 32423

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding (a) Time	Initial Calibration Relative Response Factor > =.05%	Initial Calibration Relative Standard Deviation (RSD) > =30%	Continuing (b) Calibration > =25% & < =50% RSD and %Difference	Internal Standards	Positive Detects (c) Method Blanks	Surrogate Recoveries Within 10%	Matrix Spike/ Matrix Spike Duplicate
SL27008 2-4' (b)(c)	OK	OK	OK	4-chloroaniline	OK	n-nitrosodiphenylamine	OK	OK
SL27009 0-3" (b)(c)				benzo(k)fluoranthene		TICs 1,2,3,4,5,6,7,8,		
SL27009 2-4' (b)(c)				2,4-dinitrophenol		9,10,11,12,13,14,18,19		
SL27010 0-3" (b)(c)				4,6-dinitro-2-methylphenol				
SL27010 2-4' (b)(c)				indeno(1,2,3-cd)pyrene				
SL27011 0-3" (b)(c)				4-nitroaniline				
SL27011 2-4' (b)(c)				2,4,6-tribromophenol				
SLRP004 2-4' (b)(c)								
SLMS004 2-4' (b)								
SLMSD004 2-4'								
SLEB006 (b)(c)								
SLEB006RE (a)(b)(c)								
SLTB006								
SLTB008								
SLTB009								
SLTB010								
SLTB011								
SL032 2-4' (c)								
SL041 0-3"								
SL041 3-4' (c)								
SL048 1-2' (c)								
SLRP005 1-2' (c)								
SLMS005 1-2'								
SLMSD005 1-2'								
SL048 1-2' (c)								
SLTB007								

(a) Samples SLEB006RE exceeded the extraction holding time by six days. Qualify all positive results as estimated (J).

(b) Samples contained compounds with % Differences greater than 25 percent but less than 50 percent. Qualify all positive results as estimated (J). Samples SLEB006, SL27009 0-3" and SL27009 2-4' contained compounds with % Differences greater than 50 percent but less than 90 percent. Qualify all positive results as estimated (J) and all non detect results as estimated (UJ).

(c) Samples have been qualified for blank contamination less than the CRQL and less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported. Samples also have been qualified for Tentatively Identified Compound contamination.

Note: A = acceptable under Contract Laboratory Requirements

Appendix E-3
Pesticides/PCB, Data Validation Summaries

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 20502

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual (a) Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs < 10%	Continuous Calibration %D < = 15% %D < = 20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (b) Identification/ Quantitation
EB (a,b)	A	A	A	A	A	A	A	A	Aroclor 1260
RP040 (a,b)	A	A	A	A	A	A	A	A	Aroclor 1260
SL040 (a,b)	A	A	A	A	A	A	A	A	Aroclor 1260
SL040MS (a,b)	A	A	A	A	A	A	A	A	Aroclor 1260
SL040MSD (a,b)	A	A	A	A	A	A	A	A	Aroclor 1260

(a) Method 608 for PCBs requested. Contract Laboratory Program for PCBs was run.
(b) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). All positve Aroclors are qualified (J), as estimated All non-detects are qualifed as (UJ), estimated detection limit

Note A = acceptable under Contract Laboratory Validation Requirements

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 20803

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a)(b) Identification/ Quantitation
SW006	A	A	A	A	A	A	A	A	A
SD006	A	A	A	A	A	A	A	A	A
SD006DL (a)	A	A	A	A	A	A	A	A	4,4'-DDD(DJX)
SW007	A	A	A	A	A	A	A	A	A
SD007 (b)	A	A	A	A	A	A	A	A	4,4-DDD(JX)
SD007DL (a)	A	A	A	A	A	A	A	A	4,4'-DDE(DJX)
SW005 (b)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SD005	A	A	A	A	A	A	A	A	A
SD005DL	A	A	A	A	A	A	A	A	A
SWRP001 (b)	A	A	A	A	A	A	A	A	4,4'-DDD(JX) 4,4'-DDT(JX)
SDRP001	A	A	A	A	A	A	A	A	A
SDRP001DL	A	A	A	A	A	A	A	A	A
EB001	A	A	A	A	A	A	A	A	A
FB001	A	A	A	A	A	A	A	A	A
SWRP001MS	A	A	A	A	A	A	A	A	A
SWRP001MSD	A	A	A	A	A	A	A	A	A
SDRP001MS	A	A	A	A	A	A	A	A	A
SDRP001MSD	A	A	A	A	A	A	A	A	A

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as diluted, estimated, and below CRQLs (DJX).

(b) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 20847

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs < 10%	Continuous Calibration %D < = 15% %D < = 20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a) Identification/ Quantitation
SL056	A	A	A	A	A	A	A	A	
SL057	A	A	A	A	A	A	A	A	
SL058 (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL059 (a)	A	A	A	A	A	A	A	A	Dieldrin (JX)
SL060 (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL061	A	A	A	A	A	A	A	A	A
SL061DL	A	A	A	A	A	A	A	A	A
SL062 (a)	A	A	A	A	A	A	A	A	4,4'-DDT(JX)
SLRP001	A	A	A	A	A	A	A	A	A
SLRP001MS	A	A	A	A	A	A	A	A	A
SLRP001MSD	A	A	A	A	A	A	A	A	A

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX) A

Note A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32362

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a) Identification/ Quantitation
SLEB003	A	A	A	A	A	A	A	A	A
SL100 4-6'	A	A	A	A	A	A	A	A	A
SL098 7-9'	A	A	A	A	A	A	A	A	A
SL097 1-3' A	A	A	A	A	A	A	A	A	A
SL097 7-9'	A	A	A	A	A	A	A	A	A
SL099 5-7' (a)	A	A	A	A	A	A	A	A	Aroclor 1260(JX)

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32384

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a) Identification/ Quantitation
SL072 0-3" (a)	A	A	A	A	A	A	A	A	alpha-Chlordane (JX)
SL073 0-3"	A	A	A	A	A	A	A	A	A
SL011 0-3"	A	A	A	A	A	A	A	A	A
SL013 0-3"	A	A	A	A	A	A	A	A	A
SL072 5-7' (a)	A	A	A	A	A	A	A	A	Heptachlor (JX Aldrin (JX)
SL073 4-6'	A	A	A	A	A	A	A	A	A
SL011 2-4'	A	A	A	A	A	A	A	A	A
SL013 2-4'	A	A	A	A	A	A	A	A	A
SL024 0-3"	A	A	A	A	A	A	A	A	A
SL024 2-4'	A	A	A	A	A	A	A	A	A
SL022 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX
SL022 2-4'	A	A	A	A	A	A	A	A	A
SL026 0-3"	A	A	A	A	A	A	A	A	A
SL026 2-4' (a)	A	A	A	A	A	A	A	A	4,4'-DDD(JX) 4-4'-DDT(JX)
SL052 0-3"	A	A	A	A	A	A	A	A	A
SL052 1-2'	A	A	A	A	A	A	A	A	A
SL050 0-3"	A	A	A	A	A	A	A	A	A
SL050 2-4'	A	A	A	A	A	A	A	A	A
SL066 0-3"	A	A	A	A	A	A	A	A	A
SL066 2-4'	A	A	A	A	A	A	A	A	A

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX).

Note. A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32397

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a) Identification/ Quantitation
SL012 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX) 4,4'-DDT(JX)
SL014 0-3"	A	A	A	A	A	A	A	A	A
SL015 0-3"	A	A	A	A	A	A	A	A	A
SL016 0-3"	A	A	A	A	A	A	A	A	A
SL017 0-3"	A	A	A	A	A	A	A	A	A
SL018 0-3"	A	A	A	A	A	A	A	A	A
SL019 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDD(JX) 4,4'-DDT(JX)
SL020 0-3"	A	A	A	A	A	A	A	A	A
SL021 0-3"	A	A	A	A	A	A	A	A	A
SL023 0-3"	A	A	A	A	A	A	A	A	A
SL025 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL028 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDD(JX) 4,4'-DDT(JX)
SL029 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDD(JX) 4,4'-DDT(JX)
SL033 0-3"	A	A	A	A	A	A	A	A	A
SL042 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDT(JX)
SL045 0-3"	A	A	A	A	A	A	A	A	A
SL051 0-3"	A	A	A	A	A	A	A	A	A
SL088 0-3"	A	A	A	A	A	A	A	A	A
SL089 0-3"	A	A	A	A	A	A	A	A	A
SL091 0-3"	A	A	A	A	A	A	A	A	A

See notes at bottom of table on next page.

(Continued)
Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32397

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a) Identification/ Quantitation
SL092 0-3"	A	A	A	A	A	A	A	A	A
SL093 0-3"	A	A	A	A	A	A	A	A	A
SL094 0-3"	A	A	A	A	A	A	A	A	A
SL063 0-3"	A	A	A	A	A	A	A	A	A
SL064 0-3"	A	A	A	A	A	A	A	A	A
SLRP009 0-3"	A	A	A	A	A	A	A	A	A
SL101 0-3"	A	A	A	A	A	A	A	A	A
SLRP010 0-3"	A	A	A	A	A	A	A	A	A
SL102 0-3"	A	A	A	A	A	A	A	A	A
SL102 0-3" MS	A	A	A	A	A	A	A	A	A
SL102 0-3" MSD	A	A	A	A	A	A	A	A	A
SL103 0-3"	A	A	A	A	A	A	A	A	A
SLEB007	A	A	A	A	A	A	A	A	A

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32408

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs < 10%	Continuous Calibration %D < = 15% %D < = 20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a) Identification/ Quantitation
SL068 0-3"	A	A	A	A	A	A	A	A	
SL070 0-3"	A	A	A	A	A	A	A	A	
SL085 0-3"	A	A	A	A	A	A	A	A	
SL104 0-3"	A	A	A	A	A	A	A	A	
SL105 0-3" (a)	A	A	A	A	A	A	A	A	
SL106 0-3"	A	A	A	A	A	A	A	A	
SL107 0-3"	A	A	A	A	A	A	A	A	
SL108 0-3"	A	A	A	A	A	A	A	A	
SL109 0-3"	A	A	A	A	A	A	A	A	
SL110 0-3"	A	A	A	A	A	A	A	A	
SL111 0-3"	A	A	A	A	A	A	A	A	
SL113 0-3"	A	A	A	A	A	A	A	A	
SL114 0-3"	A	A	A	A	A	A	A	A	
SL115 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL116 0-3" (a)	A	A	A	A	A	A	A	A	Aldrin(JX) 4,4'-DDD(JX) 4,4'-DDT(JX) alpha-Chlordane gamma-Chlordane
SL117 0-3"	A	A	A	A	A	A	A	A	
SL118 0-3"	A	A	A	A	A	A	A	A	
SL119 0-3"	A	A	A	A	A	A	A	A	
SL120 0-3"	A	A	A	A	A	A	A	A	
SL121 0-3"	A	A	A	A	A	A	A	A	

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32415

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a) Identification/ Quantitation
SL122 0-3"	A	A	A	A	A	A	A	A	A
SL123 0-3"	A	A	A	A	A	A	A	A	A
SL124 0-3"	A	A	A	A	A	A	A	A	A
SLRP007 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE
SLRP007 0-3" MS	A	A	A	A	A	A	A	A	A
SLRP007 0-3" MSD	A	A	A	A	A	A	A	A	A
SLRP011 0-3"	A	A	A	A	A	A	A	A	A
SL075 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL078 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX) 4,4'-DDT(JX)
SL080 0-3" (a)	A	A	A	A	A	A	A	A	Dieldran(JX)
SLRP006 0-3"	A	A	A	A	A	A	A	A	A
SLRP006 0-3" MS	A	A	A	A	A	A	A	A	A
SLRP006 0-3" MSD	A	A	A	A	A	A	A	A	A
SL086 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDD(JX)
SLRP008 0-3" (a)	A	A	A	A	A	A	A	A	Heptachlorepoxide(JX)
SL095 0-3"	A	A	A	A	A	A	A	A	A
SL112 0-3"	A	A	A	A	A	A	A	A	A
SLRP012 0-3"	A	A	A	A	A	A	A	A	A
SL125 0-3"	A	A	A	A	A	A	A	A	A
SL126 0-3"	A	A	A	A	A	A	A	A	A
SL127 0-3"	A	A	A	A	A	A	A	A	A
SL069 0-3"	A	A	A	A	A	A	A	A	A
SL069 1-2'	A	A	A	A	A	A	A	A	A
SLMS008 0-3" (a)	A	A	A	A	A	A	A	A	alpha-Chlordane(JX)
SLMSD008 0-3"	A	A	A	A	A	A	A	A	A

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX).

Note: A = acceptable under Contract Laboratory Validation Requirements

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32416

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a) Identification/ Quantitation
SLRP013 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDT(JX)
SLRP013 0-3" MS	A	A	A	A	A	A	A	A	A
SLRP013 0-3" MSD	A	A	A	A	A	A	A	A	A
SL090 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDD(JX) 4,4'-DDT(JX)
SL084 0-3" (a)	A	A	A	A	A	A	A	A	alpha-BHC(JX) 4,4'-DDD(JX)
SL076 0-3"	A	A	A	A	A	A	A	A	A
SL071 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDT(JX)
SL067 0-3"	A	A	A	A	A	A	A	A	A
SL065 0-3"	A	A	A	A	A	A	A	A	A
SLEB008	A	A	A	A	A	A	A	A	A
SLEB008MS	A	A	A	A	A	A	A	A	A
SLEB008MSD	A	A	A	A	A	A	A	A	A

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32422

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (a) Identification/ Quantitation
SL087 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL096 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SLRP002 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SLRP002 0-3" MS (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SLRP002 0-3" MSD (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL096 2-4'	A	A	A	A	A	A	A	A	
SLRP003 2-4'	A	A	A	A	A	A	A	A	
SLRP003 2-4' MS	A	A	A	A	A	A	A	A	
SLRP003 2-4' MSD	A	A	A	A	A	A	A	A	
SL27001 0-3"	A	A	A	A	A	A	A	A	
SL27001 2-4'	A	A	A	A	A	A	A	A	
SL27002 0-3"	A	A	A	A	A	A	A	A	
SL27002 2-4'	A	A	A	A	A	A	A	A	
SL27003 0-3" (a)	A	A	A	A	A	A	A	A	Aroclor-1260(JX)
SL27003 2-4'	A	A	A	A	A	A	A	A	
SL27004 0-3"	A	A	A	A	A	A	A	A	
SL27004 2-4'	A	A	A	A	A	A	A	A	
SL27005 0-3" (a)	A	A	A	A	A	A	A	A	Aroclor-1260(JX)
SL27005 2-4'	A	A	A	A	A	A	A	A	
SL27006 0-3"	A	A	A	A	A	A	A	A	
SL27006 2-4'	A	A	A	A	A	A	A	A	
SL27007 0-3" (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL27007 2-4' (a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL27008 0-3"	A	A	A	A	A	A	A	A	

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32423

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte(a) Identification/ Quantitation
SL27008 2-4'	A	A	A	A	A	A	A	A	A
SL27009 0-3"(a)	A	A	A	A	A	A	A	A	Aroclor-1260(JX)
SL27009 2-4'(a)	A	A	A	A	A	A	A	A	Aroclor-1260(JX)
SL27010 0-3"	A	A	A	A	A	A	A	A	A
SL27010 2-4'	A	A	A	A	A	A	A	A	A
SL27011 0-3"	A	A	A	A	A	A	A	A	A
SL27011 2-4'	A	A	A	A	A	A	A	A	A
SL27RP004 2-4'	A	A	A	A	A	A	A	A	A
SLMS004 2-4'	A	A	A	A	A	A	A	A	A
SLMSD004 2-4'	A	A	A	A	A	A	A	A	A
SLEB006	A	A	A	A	A	A	A	A	A
SL032 2-4'	A	A	A	A	A	A	A	A	A
SL041 0-3"	A	A	A	A	A	A	A	A	A
SL041 3-4'(a)	A	A	A	A	A	A	A	A	4,4'-DDE(JX)
SL048 0-3"(a)	A	A	A	A	A	A	A	A	Aroclor-1260(JX)
SLRP005 1-2'	A	A	A	A	A	A	A	A	A
SLMS005 1-2'	A	A	A	A	A	A	A	A	A
SLMSD005 1-2'(a)	A	A	A	A	A	A	A	A	Aroclor-1260(JX)
SL048 1-2'(a)	A	A	A	A	A	A	A	A	Aroclor-1260(JX)
SL032 0-3"(a)	A	A	A	A	A	A	A	A	Aroclor-1260(JX)

(a) Reported results were below Contract Laboratory Program mandated contract required quantitation limits (CRQLs). Concentrations are qualified as estimated and below CRQLs (JX).

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32376

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs < 10%	Continuous Calibration %D < = 15% %D < = 20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte Identification/ Quantitation
SLEB005	A	A	A	A	A	A	A	A	A
SL074 0-3"	A	A	A	A	A	A	A	A	A
SL074 5-6'	A	A	A	A	A	A	A	A	A
SL077 0-3"	A	A	A	A	A	A	A	A	A
SL077 4-5'	A	A	A	A	A	A	A	A	A
SL053 0-3"	A	A	A	A	A	A	A	A	A
SL053 0-3" DL	A	A	A	A	A	A	A	A	A
SL053 4-6'	A	A	A	A	A	A	A	A	A
SL081 0-3"	A	A	A	A	A	A	A	A	A
SL081 3-5'	A	A	A	A	A	A	A	A	A

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32342

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte Identification/ Quantitation
SLFB01	A	A	A	A	A	A	A	A	A
SLEB01	A	A	A	A	A	A	A	A	A
SL034 9-11'	A	A	A	A	A	A	A	A	A
SLRP001 9-11'	A	A	A	A	A	A	A	A	A
SLRP001 9-11' MS	A	A	A	A	A	A	A	A	A
SLRP001 9-11' MSD	A	A	A	A	A	A	A	A	A

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32349

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte Identification/ Quantitation
SLEB002	A	A	A	A	A	A	A	A	A
SL035 9-11'	A	A	A	A	A	A	A	A	A
SL039 10-12'	A	A	A	A	A	A	A	A	A
SL040 9-11'	A	A	A	A	A	A	A	A	A
SL043 5-7'	A	A	A	A	A	A	A	A	A
SL044 7-9'	A	A	A	A	A	A	A	A	A
SL047 3-5'	A	A	A	A	A	A	A	A	A

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 32374

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual Non Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs < 10%	Continuous Calibration %D < = 15% %D < = 20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte Identification/ Quantitation
SLEB004	A	A	A	A	A	A	A	A	A
SL083 0-3"	A	A	A	A	A	A	A	A	A
SL083 5-7'	A	A	A	A	A	A	A	A	A
SL082 0-3"	A	A	A	A	A	A	A	A	A
SL082 3-5'	A	A	A	A	A	A	A	A	A
SL079 0-3"	A	A	A	A	A	A	A	A	A
SL079 4-6'	A	A	A	A	A	A	A	A	A
SL079 4-6' MS	A	A	A	A	A	A	A	A	A
SL079 4-6' MSD	A	A	A	A	A	A	A	A	A

Summary of Laboratory Quality Control, PCB/Pesticide Soil Analytical Results, Sample Delivery Group 20492

Operable Unit 1
NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Contractual (a) Non (b) Compliance	Holding Time	Gas Chromatograph Instrument Performance	Initial Calibration %RSDs<10%	Continuous Calibration %D<=15% %D<=20%	Positive Detects Method Blanks	Surrogate Recoveries Within 24% - 150%	Matrix Spike/ Matrix Spike Duplicates Recoveries	Analyte (c) Identification/ Quantitation
SL068 (a,b,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL073 (a,c)	A	A	A	A	A	A	A	A	Aroclor-1260
									Aroclor-1260
									Aroclor-1260
RP068 (a,b,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL070 (a,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL074 (a,c)	A	A	A	A	A	A	A	A	Aroclor-1260
FB (a,c)	A	A	A	A	A	A	A	A	Aroclor-1260
EB (a,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL021 (a,b,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL104 (a,b,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL106 (a,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL102 (a,b,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL105 (a,b,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL101 (a,b,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL015 (a,b,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL103 (a,b,c)	A	A	A	A	A	A	A	A	Aroclor-1260
SL107 (a,c)	A	A	A	A	A	A	A	A	Aroclor-1260

(a) Method 608 for PCBs was requested. Contract Laboratory Program (CLP) for PCBs was run.
(b) Dilutions greater than 1:10 were not accompanied by analysis at lesser dilutions. All non-detects are qualified as (UJ), estimated detection limit
(c) Reported results were below CLP mandated contract required quantitation limits (CRQLs). All positive Aroclors are qualified as (J), estimated. All non-detects are qualified as (UJ), estimated detection limit.

Note A = acceptable under Contract Laboratory Validation Requirements

Appendix E-4
Inorganic Compounds, Data Validation Summaries

Summary of Laboratory Quality Control, Inorganic Soil Analytical Results, Sample Delivery Group 32423 and 32416

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
SL27008 2-4'	A	A	Barium .088 mg/kg	A	A	A	A	All positive results for sodium are qualified as "J."	Thallium SL090 0-3" only, qualify as "UJ."
SL27009 0-3"	A	A	Calcium 16.5 mg/kg	A	A	A	A		
SL27009 2-4'	A	A	Chromium 0.66 mg/kg	A	A	A	A		
SL270010 0-3"	A	A	Potassium 82.97 mg/kg	A	A	A	A		
SL27010 2-4'	A	A	Sodium 4.05 mg/kg	A	A	A	A		
SL27RP004 2-4'	A	A		A	A	A	A		
SLEB006	A	A	Arsenic 0 6 $\mu g/\ell$	A	A	A	A		
SLEB006MS	A	A	Calcium 48.0 $\mu g/\ell$	A	A	A	A		
SLEB006D	A	A	Iron 3.1 $\mu g/\ell$	A	A	A	A		
SL032 2-4'	A	A	Sodium 45.8 $\mu g/\ell$	A	A	A	A		
SL041 3-4'	A	A		A	A	A	A		
SLRP005 1-2'	A	A		A	A	A	A		
SLMSS005 1-2'	A	A		A	A	A	A		
SLMSD005 1-2'	A	A		A	A	A	A		
SL048 1-2'	A	A		A	A	A	A		
SLEB008	A	A		A	A	A	A		
SLEB008MSD	A	A		A	A	A	A		

Notes: (a) Initial and continuing calibration must have a correlation coefficient of ≥ 0.995.
(b) Positive detects are reported only when they exceed 5 times the absolute concentration of the preparation blank. All others are qualified as non-detect, "U." Sample values associated with SDG exhibiting negative bias must exceed 5 times the absolute concentration before being qualified as "J," and 10 times the absolute value before not being qualified.
(c) Interference check sample must fall within ± 20 percent of true value.
(d) Spike recovery (%R) must be within the limits of 75 to 125 percent.
(e) For sample values >5 times Contract Required Detection Limits (CRDL), the duplicate values must be within ± 20 percent for water or ± 35 percent for soils. For sample values <5 times CRDL, the duplicate values shall be with the absolute CRDL value for water or twice the absolute CRDL value for soils.
(f) Laboratory Control Sample (LCS) internal checks results must be within control limits of 80 to 120 percent, except for silver and tin.
(g) The serial dilution, whether significant physical or chemical interferences, exists due to sample matrix. Serial dilution of a 5-fold dilution must agree within 10 percent Difference (%D) of the original results.
(h) Spike recovery (%R) must be within limits of 75 to 125 percent

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Inorganic Soil Analytical Results, Sample Delivery Group 32415

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
SL122 0-3"	A	A	Calcium 19.2 mg/kg	A	Silver was below the lower control limits for silver.	A	A	A	A
SL123 0-3"	A	A	Chromium 0.66 mg/kg	A		A	A	A	A
SL124 0-3"	A	A	Iron 1.68 mg/kg	A		A	A	A	A
SLRP007 0-3"	A	A	Potassium 51.17 mg/kg	A		A	A	A	A
SLRP007 0-3" MS	A	A	Sodium 5.47 mg/kg	A		A	A	A	A
SLRP007 0-3" MSD	A	A		A		A	A	A	A
SLRP011 0-3"	A	A	Arsenic 0.6 $\mu g/\ell$	A		A	A	A	A
SL075 0-3"	A	A	Calcium 48.0 $\mu g/\ell$	A		A	A	A	A
SL078 0-3"	A	A	Iron 3.1 $\mu g/\ell$	A		A	A	A	A
SL080 0-3"	A	A	Sodium 45.8 $\mu g/\ell$	A		A	A	A	A
SLRP006 0-3"	A	A		A		A	A	A	A
SLRP006 0-3" MS	A	A		A		A	A	A	A
SLRP006 0-3" MSD	A	A		A		A	A	A	A
SL086 0-3"	A	A		A		A	A	A	A
SLRP008 0-3"	A	A		A		A	A	A	A
SL095 0-3"	A	A		A		A	A	A	A
SL112 0-3"	A	A		A		A	A	A	A
SLRP012 0-3"	A	A		A		A	A	A	A
SL125 0-3"	A	A		A		A	A	A	A
SL126 0-3"	A	A		A		A	A	A	A
SL127 0-3"	A	A		A		A	A	A	A
SL069 0-3"	A	A		A		A	A	A	A
SL069 1-2'	A	A		A		A	A	A	A

Notes:
(a) Initial and continuing calibration must have a correlation coefficient of ≥ 0.995.
(b) Positive detects are reported only when they exceed 5 times the absolute concentration of the preparation blank. All others are qualified as non-detect, "U." Sample values associated with SDG exhibiting negative bias must exceed 5 times the absolute concentration before being qualified as "J," and 10 times the absolute value before not being qualified.
(c) Interference check sample must fall within ± 20 percent of true value.
(d) Spike recovery (%R) must be within the limits of 75 to 125 percent.
(e) For sample values >5 times Contract Required Detection Limits (CRDL), the duplicate values must be within ± 20 percent for water or ± 35 percent for soils For sample values <5 times CRDL, the duplicate values shall be with the absolute CRDL value for water or twice the absolute CRDL value for soils.
(f) Laboratory Control Sample (LCS) internal checks results must be within control limits of 80 to 120 percent, except for silver and tin.
(g) The serial dilution, whether significant physical or chemical interferences, exists due to sample matrix Serial dilution of a 5-fold dilution must agree within 10 percent Difference (%D) of the original results.
(h) Spike recovery (%R) must be within limits of 75 to 125 percent.

Note: A = acceptable under Contract Laboratory Validation Requirements

Summary of Laboratory Quality Control, Inorganic Soil Analytical Results, Sample Delivery Group 32374 AND 32376

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
SLEB004	A	A	Barium 0 063 mg/kg	A	Zinc was below 30 percent. All positive values are estimated (J).	Chromium and zinc were outside of limits and qualified as "J" or "UJ."	A	Copper was out of limits; all values estimated (J).	
SLEB005	A	A	Calcium 13.22 mg/kg	A			A		
SL053 4-6'	A	A	Copper 0.72 mg/kg	A			A		
SL074 0-3"	A	A	Potassium 88.66 mg/kg	A			A		
SL074 5-6'	A	A	Sodium 5.99 mg/kg	A		Iron was above limits and not qualified.	A		
SL077 0-3"	A	A	Zinc 0.43 mg/kg	A			A		
SL077 4-5'	A	A		A			A		
SL079 0-3"	A	A	Arsenic 0.6 $\mu g/\ell$	A			A		
SL079 4-6'	A	A	Calcium 48.0 $\mu g/\ell$	A			A		
SL081 0-3"	A	A	Iron 3.1 $\mu g/\ell$	A			A		
SL081 3-5'	A	A	Sodium 45.8 $\mu g/\ell$	A			A		
SL082 0-3"	A	A	Beryllium blank exhibited negative contamination of -0.27 mg/kg.	A			A		
SL082 3-5'	A	A		A			A		
SL083 0-3"	A	A		A			A		
SL083 0-3" MS	A	A		A			A		
SL083 0-3" D	A	A		A			A		
SL083 5-7'	A	A		A			A		

Notes: (a) Initial and continuing calibration must have a correlation coefficient of ≥0.995.
(b) Contaminants are qualified as "U" until they exceed 5 times the blank value of a negatve bias. Preparation blank is reported as estimated.
(c) Interference check sample must fall within ± 20 percent of true value.
(d) Spike recovery (%R) must be within the limits of 75 to 125 percent.
(e) For sample values >5 times Contract Required Detection Limits (CRDL), the duplicate values must be within ± 20 percent for water or ± 35 percent for soils. For sample values <5 times CRDL, the duplicate values shall be with the absolute CRDL value for water or twice the absolute CRDL value for soils.
(f) Laboratory Control Sample (LCS) internal checks results must be within control limits of 80 to 120 percent, except for silver and tin.
(g) The serial dilution, whether significant physical or chemical interferences, exists due to sample matrix. Serial dilution of a 5-fold dilution must agree within 10 percent Difference (%D) of the original results
(h) Spike recovery (%R) must be within limits of 75 to 125 percent

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Inorganic Soil Analytical Results, Sample Delivery Group 32422

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
SL087 0-3"	A	A	Sodium 7.35 mg/kg	A	Silver was below the lower control limits All positive and non-detect results are qualified as estimated "J" or "UJ." Zinc was above the upper control limits. All positive results are qualified as estimated "J."	Aluminum and chromium were less than 35 percent and could not be qualified.	A	Soil sodium was outside the control limits and qualified as estimated "J."	Low recovery was reported for the following: Arsenic in SL27006 0'3" Selenium in Sl27002 0-3" SL27003 0-3" SL27004 0-3" SL27006 0-3" Thallium in SL087 0-3" SL096 0-3" SL096 2-4' SL27001 0-1'
SL096 0-3"	A	A		A			A		
SLRP002 0-3"	A	A		A			A		
SLRP002 0-3" MS	A	A		A			A		
SLRP002 0-3" MSD	A	A		A			A		
SL096 2-4'	A	A		A			A		
SL096 2-4' RE	A	A		A			A		
SLRP003 2-4'	A	A		A			A		
SLRP003 2-4' MS	A	A		A			A		
SLRP003 2-4' MSD	A	A		A			A		
SLRP003 2-4' MSR	A	A		A			A		
SLRP003 2-4' MSDR	A	A		A			A		
SL27001 0-3"	A	A		A			A		
SL27001 2-4'	A	A		A			A		
SL27002 0-3"	A	A		A			A		
SL27002 2-4'	A	A		A			A		
SL27003 0-3"	A	A		A			A		
SL27003 2-4'	A	A		A			A		
SL27004 0-3"	A	A		A			A		
SL27004 2-4'	A	A		A			A		
SL27005 0-3"	A	A		A			A		
SL27005 2-4'	A	A		A			A		
SL27006 0-3"	A	A		A			A		
SL27006 2-4'	A	A		A			A		
SL27007 0-3"	A	A		A			A		
SL27007 2-4'	A	A		A			A		
SL27008 0-3"	A	A		A			A		

Notes: (a) Initial and continuing calibration must have a correlation coefficient of ≥0.995.
(b) Positive detects are reported only when they exceed 5 times the absolute concentration of the preparation blank. All others are qualified as non-detect, "U." Sample values associated with SDG exhibiting negative bias must exceed 5 times the absolute concentration before being qualified as "J," and 10 times the absolute value before not being qualified.
(c) Interference check sample must fall within ± 20 percent of true value.
(d) Spike recovery (%R) must be within the limits of 75 to 125 percent.
(e) For sample values >5 times Contract Required Detection Limits (CRDL), the duplicate values must be within ± 20 percent for water or ± 35 percent for soils. For sample values <5 times CRDL, the duplicate values shall be with the absolute CRDL value for water or twice the absolute CRDL value for soils.
(f) Laboratory Control Sample (LCS) internal checks results must be within control limits of 80 to 120 percent, except for silver and tin.
(g) The serial dilution, whether significant physical or chemical interferences, exists due to sample matrix. Serial dilution of a 5-fold dilution must agree within 10 percent Difference (%D) of the original results.
(h) Spike recovery (%R) must be within limits of 75 to 125 percent.

Note: A = acceptable under Contract Laboratory Validation Requirements

Summary of Laboratory Quality Control, Inorganic Soil Analytical Results, Sample Delivery Group 32342, 32349, and 32362

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
SLEB01	A	A	Barium 0.087 mg/kg	A	Arsenic and barium were below the lower control limits. Results qualified as "J" and "UJ."	Copper, iron, manganese, and nickel were outside control limits, and qualfied as estimated "J" or "UJ."	A	Sodium was outside control limits.	SL040 9-11' had low selenium recovery.
SLEB01 MS	A	A	Calcium 14.1 mg/kg	A			A		
SLEB01 D	A	A	Manganese 0.44 mg/kg	A			A		
SLEB002	A	A	Sodium 3 65 mg/kg	A			A		
SLEB003	A	A		A			A		SL097 1-3" and SL097 7-9' had low thallium recoveries. These were qualified as "J" and "UJ."
SLFB01	A	A	Barium 0.6 µg/ℓ	A			A		
SLFB01 MS	A	A	Calcium 70.5 µg/ℓ	A			A		
SLFB01 D	A	A	Sodium 93.4 µg/ℓ	A			A		
SLRP001 9-11'	A	A	Zinc 2.3 µg/ℓ	A	Cadmium and chromium were above the upper control limits. All positive values are qualfied as "J."	Aluminum, barium, cadmium, calcium, and zinc were above 35 percent, but not qualified.	A		
SLRP001 9-11' MS	A	A		A			A		
SLRP001 9-11' D	A	A	Cyanide preparation blank exhibited negative contamination of -4.0 µg/ℓ.	A			A		
SL034 9-11'	A	A		A			A		
SL035 9-11'	A	A		A			A		
SL039 10-12'	A	A		A			A		
SL040 9-11'	A	A		A			A		
SL043 5-7'	A	A		A			A		
SL044 7-9'	A	A		A			A		
SL047 3-5'	A	A		A			A		
SL097 1-3'	A	A		A			A		
SL097 7-9'	A	A		A			A		
SL098 7-9'	A	A		A			A		
SL099 5-7'	A	A		A			A		
SL100 4-6'	A	A		A			A		

Notes: (a) Initial and continuing calibration must have a correlation coefficient of ≥0.995.
(b) Contaminants are qualified as "U" until they exceed 5 times the blank value of a negatve bias. Preparation blank is reported as estimated.
(c) Interference check sample must fall within ± 20 percent of true value.
(d) Spike recovery (%R) must be within the limits of 75 to 125 percent.
(e) For sample values >5 times Contract Required Detection Limits (CRDL), the duplicate values must be within ± 20 percent for water or ± 35 percent for soils. For sample values <5 times CRDL, the duplicate values shall be with the absolute CRDL value for water or twice the absolute CRDL value for soils.
(f) Laboratory Control Sample (LCS) internal checks results must be within control limits of 80 to 120 percent, except for silver and tin.
(g) The serial dilution, whether significant physical or chemical interferences, exists due to sample matrix. Serial dilution of a 5-fold dilution must agree within 10 percent Difference (%D) of the original results.
(h) Spike recovery (%R) must be within limits of 75 to 125 percent.

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Inorganic Soil Analytical Results, Sample Delivery Group 32384

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
SL072 0-3"	A	A	Arsenic 0.12 mg/kg	A	Silver was below control limits.	Calcium and iron were below control limits.	A	Barium and sodium were below control limits.	SL024 2-4' and SI052 1-2' for selenium were qualified as __ —.
SL072 0-3" MS	A	A	Beryllium 0.14 mg/kg	A			A		
SL072 0-3" D	A	A	Calcium 10.97 mg/kg	A			A		
SL073 0-3"	A	A	Sodium 5.17 mg/kg	A			A		
SL072 5-7'	A	A	Zinc 0.42 mg/kg	A			A		
SL073 4-6'	A	A		A			A		
SL011 2-4'	A	A		A			A		
SL013 2-4'	A	A		A			A		
SL024 2-4	A	A		A			A		
SL022 2-4'	A	A		A			A		
SL026 2-4'	A	A		A			A		
SL056 1-2'	A	A		A			A		
SL050 2-4'	A	A		A			A		
SL066 0-3"	A	A		A			A		
SL066 2-4'	A	A		A			A		
SL066 2-4' MS	A	A		A			A		
SL066 2-4' D	A	A		A			A		

Notes:
(a) Initial and continuing calibration must have a correlation coefficient of ≥0.995.
(b) Positive detects are reported only when they exceed 5 times the absolute concentration of the preparation blank. All others are qualified as non-detect, "U." Sample values associated with SDG exhibiting negative bias must exceed 5 times the absolute concentration before being qualified as "J," and 10 times the absolute value before not being qualified.
(c) Interference check sample must fall within ± 20 percent of true value.
(d) Spike recovery (%R) must be within the limits of 75 to 125 percent.
(e) For sample values >5 times Contract Required Detection Limits (CRDL), the duplicate values must be within ± 20 percent for water or ± 35 percent for soils For sample values <5 times CRDL, the duplicate values shall be with the absolute CRDL value for water or twice the absolute CRDL value for soils.
(f) Laboratory Control Sample (LCS) internal checks results must be within control limits of 80 to 120 percent, except for silver and tin.
(g) The serial dilution, whether significant physical or chemical interferences, exists due to sample matrix. Serial dilution of a 5-fold dilution must agree within 10 percent Difference (%D) of the original results.
(h) Spike recovery (%R) must be within limits of 75 to 125 percent.

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Inorganic Soil Analytical Results, Sample Delivery Group 20492

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
SL068	A	Antimony exhibited low recovery.	Aluminum 11.22 mg/kg	A	Antimony, barium, and selenium were below lower control limit All positive and non-detect results are qualified as "J" or "UJ."	Arsenic, chromium, copper, iron, lead, nickel, and silver were outside the control limits. All positive and non-detect results are qualified as estimated "J" or "UJ."	A	A	A
SL068 MS	A		Barium 0.18 mg/kg	A			A	A	A
SL068 MSD	A	Chromium, cadmium, and lead exhibited high recovery.	Calcium 56.11 mg/kg	A			A	A	A
SL068 R	A		Chromium 0 42 mg/kg	A			A	A	A
SL073	A		Copper 1 39 mg/kg	A			A	A	A
RP068	A		Iron 12.39 mg/kg	A			A	A	A
RP068 R	A		Magnesium 8 09 mg/kg	A	Arsenic, manganese, and nickel were above upper control limits. All positive results are qualified as estimated "J."		A	A	A
SL070	A		Manganese 0.64 mg/kg	A			A	A	A
SL070 R	A		Potassium 40.75 mg/kg	A		Zinc RPD was less than 30 percent and not qualified.	A	A	A
SL074	A		Sodium 187 1 mg/kg	A			A	A	A
FB	A		Zinc 0.85 kg/mg	A			A	A	A
EB	A		Arsenic 2.4 $\mu g/\ell$	A			A	A	A
TB	A		Barium 0.9 $\mu g/\ell$	A	Cadmium, silver, and chromium were below 30 percent. All positive results are qualified as "J" and all non-detect results are rejected.		A	A	A
SL021	A		Beryllium 0 05 $\mu g/\ell$	A			A	A	A
SL104	A		Calcium 3,822 $\mu g/\ell$	A			A	A	A
SL106	A		Iron 27.3 $\mu g/\ell$	A			A	A	A
SL102	A		Magnesium 63.7 $\mu g/\ell$	A			A	A	A
SL105	A		Manganese 2.4 $\mu g/\ell$	A			A	A	A
SL101	A		Sodium 1,096 $\mu g/\ell$	A			A	A	A
SL015	A		Zinc 7 7 $\mu g/\ell$	A			A	A	A

See notes at end of table

Summary of Laboratory Quality Control (Continued), Inorganic Soil Analytical Results, Sample Delivery Group 20492

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
SL103	A			A			A	A	A
SL107	A		Preparation blank exhibited negative bias for potassium in water at -216 $\mu g/\ell$; and cadmium in soil at -0.52 mg/kg and vanadium in soil at 0.84 mg/kg.	A			A	A	A

Notes: (a) Initial and continuing calibration must have a correlation coefficient of ≥ 0.995.
(b) Positive detects are reported only when they exceed 5 times the absolute concentration of the preparation blank. All others are qualified as non-detect, "U" Sample values associated with SDG exhibiting negative bias must exceed 5 times the absolute concentration before being qualified as "J," and 10 times the absolute value before not being qualified.
(c) Interference check sample must fall within ± 20 percent of true value.
(d) Spike recovery (%R) must be within the limits of 75 to 125 percent.
(e) For sample values >5 times Contract Required Detection Limits (CRDL), the duplicate values must be within ± 20 percent for water or ± 35 percent for soils For sample values <5 times CRDL, the duplicate values shall be with the absolute CRDL value for water or twice the absolute CRDL value for soils
(f) Laboratory Control Sample (LCS) internal checks results must be within control limits of 80 to 120 percent, except for silver and tin.
(g) The serial dilution, whether significant physical or chemical interferences, exists due to sample matrix. Serial dilution of a 5-fold dilution must agree within 10 percent Difference (%D) of the original results.
(h) Spike recovery (%R) must be within limits of 75 to 125 percent

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Inorganic Soil Analytical Results, Sample Delivery Group 20847

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
SL056	A	A	Barium 0.273 mg/kg	A	Selenium for soils was below the lower control limit. The positive and non-detect results are qualified as estimated "J" or "UJ."	A	A	A	Selenium samples SL057 and SL058 and thallium samples SL057, SL085, SL058, and SLRP001 all exhibitied low recovery. Qualified as estimated "J" or "UJ."
SL056 R	A	A	Beryllium 0.126 mg/kg	A		A	A	A	
SL057	A	A	Clacium 28 54 mg/kg	A		A	A	A	
SL057 R	A	A	Selenium 0 27 mg/kg	A		A	A	A	
SL058	A	A	Sodium 122.4 mg/kg	A		A	A	A	
SL059	A	A		A		A	A	A	
SL059 R	A	A		A		A	A	A	
SL060	A	A		A		A	A	A	
SL061	A	A		A		A	A	A	
SL061 DL	A	A		A		A	A	A	
SL061 R	A	A		A		A	A	A	
SL062	A	A		A		A	A	A	
SL062 R	A	A		A		A	A	A	
SLRP001	A	A		A		A	A	A	
TB007	A	A		A		A	A	A	
SLRP001 MS	A	A		A		A	A	A	
SLRP002 MSD	A	A		A		A	A	A	

Notes: (a) Initial and continuing calibration must have a correlation coefficient of ≥0.995.
(b) Positive detects are reported only when they exceed 5 times the absolute concentration of the preparation blank. All others are qualified as non-detect, "U." Sample values associated with SDG exhibiting negative bias must exceed 5 times the absolute concentration before being qualified as "J," and 10 times the absolute value before not being qualified.
(c) Interference check sample must fall within ± 20 percent of true value.
(d) Spike recovery (%R) must be within the limits of 75 to 125 percent.
(e) For sample values >5 times Contract Required Detection Limits (CRDL), the duplicate values must be within ± 20 percent for water or ± 35 percent for soils. For sample values <5 times CRDL, the duplicate values shall be with the absolute CRDL value for water or twice the absolute CRDL value for soils.
(f) Laboratory Control Sample (LCS) internal checks results must be within control limits of 80 to 120 percent, except for silver and tin.
(g) The serial dilution, whether significant physical or chemical interferences, exists due to sample matrix. Serial dilution of a 5-fold dilution must agree within 10 percent Difference (%D) of the original results.
(h) Spike recovery (%R) must be within limits of 75 to 125 percent.

Note: A = acceptable under Contract Laboratory Validation Requirements.

Summary of Laboratory Quality Control, Inorganic Soil Analytical Results, Sample Delivery Group 20502

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Calibration (a)	Preparation (b) Blank	Interferences (c)	Spike (d) Recovery	Duplicate (e)	Laboratory (f) Control Samples	Serial (g) Dilution	Matrix Spike (h) Sample Analysis
EB	A	Antimony exhibited low recovery, resulting in lower reported values than may actually be present. Cadmium, chromium, and lead exhibited high recovery resulting in higher reported values than may actually be present	Barium 0.18 mg/kg	A	Antimony, barium, and selenium were below control limits. Values qualified as estimated as "J" or "UJ." Arsenic, manganese, and nickel were above control limits. All positive results are qualified as estimated "J." Cadmium, silver, and chromium were below 30 percent. All positive results are qualified as estimated "J." All non-positive results are rejected.	Arsenic, copper, iron, lead, nickel, and silver were outside the control limits. All positive and non-detects results are qualified as estimated "J" or "UJ." Zinc RPD was less than 30 percent and will not be qualified.	A	A	A
FB	A		Calcium 56.11 mg/kg	A			A	A	A
RP040	A		Chromium 0.42 mg/kg	A			A	A	A
SL040	A		Copper 1.39 mg/kg	A			A	A	A
SL040 MS	A		Iron 12.39 mg/kg	A			A	A	A
SL040 MSD	A		Magnesium 8 09 mg/kg	A			A	A	A
			Manganese 0.64 mg/kg				A	A	
			Potassium 40.75 mg/kg						
			Sodium 187.1 mg/kg						
			Zinc 0.85 mg/kg						
			Preparation blank exhibited negative bias for the following elements: In soils: Cadmium 0.52 mg/kg; Vanadium 0.84 mg/kg; In water: Potassium 216 $\mu g/\ell$						

Notes:
(a) Initial and continuing calibration must have a correlation coefficient of ≥ 0.995.
(b) Positive detects are reported only when they exceed 5 times the absolute concentration of the preparation blank. All others are qualified as non-detect, "U" Sample values associated with SDG exhibiting negative bias must exceed 5 times the absolute concentration before being qualified as "J," and 10 times the absolute value before not being qualified.
(c) Interference check sample must fall within ± 20 percent of true value.
(d) Spike recovery (%R) must be within the limits of 75 to 125 percent.
(e) For sample values >5 times Contract Required Detection Limits (CRDL), the duplicate values must be within ± 20 percent for water or ± 35 percent for soils. For sample values <5 times CRDL, the duplicate values shall be with the absolute CRDL value for water or twice the absolute CRDL value for soils.
(f) Laboratory Control Sample (LCS) internal checks results must be within control limits of 80 to 120 percent, except for silver and tin.
(g) The serial dilution, whether significant physical or chemical interferences, exists due to sample matrix. Serial dilution of a 5-fold dilution must agree within 10 percent Difference (%D) of the original results.
(h) Spike recovery (%R) must be within limits of 75 to 125 percent

Note: A = acceptable under Contract Laboratory Validation Requirements

Appendix E-5
Dioxins/Furans, Data Validation Summaries

Summary of Laboratory Quality Control, Dioxin/Furan 8280 Analytical Results, Sample Delivery Group 20493 and 20501

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Column Performance Check	Initial Calibration	Routine Calibration	Method Blanks	Matrix Spike/ Matrix Spike Duplicate	Comprehensive ID/ Quantitation	Recovery (a) Standards
FB001	A	A	A	A	A	A	A	
EB001	A	A	A	A	A	A	A	
SL074 0-3"	A	A	A	A	A	A	A	
SL073 0-3"	A	A	A	A	A	A	A	
SL070 0-3"	A	A	A	A	A	A	A	
SL068 0-3"	A	A	A	A	A	A	A	
RP068	A	A	A	A	A	A	A	
SLEB002	A	A	A	A	A	A	A	
SL040A	A	A	A	A	A	A	A	
SL040 7 5-8 5' MS	A	A	A	A	A	A	A	
SL040 7.5-8.5' MSD	A	A	A	A	A	A	A	
SL040 7.5-8.5 (a)	A	A	A	A	A	A	A	PCDDs, PCDFs
RP040 (a)	A	A	A	A	A	A	A	PCDDs, PCDFs

(a) Five of the recovery standards exhibited recoveries below the advisory limits. Qualifications are required for all associated isomers. All positive results associated with the reovery standards were qualified as estimated (J) and non-detect results were qualified as estimated (UJ).

Note A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Dioxin/Furan 8280 Analytical Results, Sample Delivery Group 32422 and 32423

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Column Performance Check	Initial Calibration	Routine Calibration	Method Blanks	Matrix Spike/ Matrix Spike Duplicate	Comprehensive ID/ Quantitation	Recovery (a) Standards
SL096 0-3"	A	A	A	A	A	A	A	
SLRP002 0-3"	A	A	A	A	A	A	A	
SLRP002 0-3" MS	A	A	A	A	A	A	A	
SLRP002 0-3" MSD	A	A	A	A	A	A	A	
SL096 2-4' (a)	A	A	A	A	A	A	A	TCDF, OCDD, OCDF
SLRP003 2-4'	A	A	A	A	A	A	A	
SLRP003 2-4' MS	A	A	A	A	A	A	A	
SLRP003 2-4' MSD	A	A	A	A	A	A	A	
SLEB006	A	A	A	A	A	A	A	

(a) Two of the recovery standards exhibited recoveries below the advisory limits. Qualifications are required for all associated isomers. All positive results associated with the reovery standards were qualified as estimated (J) and non-detect results were qualified as estimated (UJ).

Note. A = acceptable under Contract Laboratory Requirements

Summary of Laboratory Quality Control, Dioxin/Furan 8280 Analytical Results, Sample Delivery Group 32415 and 32416

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Column Performance Check	Initial Calibration	Routine Calibration	Method Blanks	Matrix Spike/ Matrix Spike Duplicate	Comprehensive ID/ Quantitation	Recovery (a) Standards
SL069 0-3" (a)	A	A	A	A	A	A	A	OCDD, OCDF
SL069 1-2' (a)	A	A	A	A	A	A	A	HpCDD, HpCDF, OCDD, OCDF
SLEB008	A	A	A	A	A	A	A	A

(a) Four of the recovery standards exhibited recoveries below the advisory limits. Qualifications are required for all associated isomers. All positive results associated with the reovery standards were qualified as estimated (J) and non-detect results were qualified as estimated (UJ).

Note A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Dioxin/Furan 8280 Analytical Results, Sample Delivery Group 32362

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Column Performance Check	Initial Calibration	Routine Calibration	Method Blanks	Matrix Spike/ Matrix Spike Duplicate	Comprehensive ID/ Quantitation	Recovery Standards
EB003	A	A	A	A	A	A	A	A

Note: A = acceptable under Contract Laboratory Requirements.

Summary of Laboratory Quality Control, Dioxin/Furan 8280 Analytical Results, Sample Delivery Group 32342 and 32349

NAS Jacksonville
Jacksonville, Florida

Associated Sample ID Numbers	Holding Time	Column Performance Check	Initial Calibration	Routine Calibration	Method Blanks	Matrix Spike/ Matrix Spike Duplicate	Comprehensive ID/ Quantitation	Recovery (a) Standards
FB01	A	A	A	A	A			
EB01	A	A	A	A	A			
034 0-3"	A	A	A	A	A			
034 9-11'	A	A	A	A	A			
RP001 9-11	A	A	A	A	A			
RP001 9-11' MS	A	A	A	A	A			
RP001 9-11' MSD	A	A	A	A	A			
EB002	A	A	A	A	A			
039 10-12 (a)	A	A	A	A	A			
040 9-11' (a)	A	A	A	A	A			TCDF, OCDD, OCDF, TCDF
043 5-7' (a)	A	A	A	A	A		HpCDD, HpCDF, OCDD, OCDF, TCDF	
044 7-9' (a)	A	A	A	A	A	TCDF, TCDD, HpCDD, HpCDF, OCDD, OCDF		
047 3-5' (a)	A	A	A	A	A			OCDD, OCDF
039 0-3" (a)	A	A	A	A	A			OCDD, OCDF
040 0-3" (a)	A	A	A	A	A			OCDD, OCDF
043 0-3" (a)	A	A	A	A	A			OCDD, OCDF
044 0-3" (a)	A	A	A	A	A			OCDD, OCDF
047 0-3"	A	A	A	A	A			

(a) Many of the recovery standards exhibited recoveries below the advisory limits. Qualifications are required for all associated isomers All positive results associated with the reovery standards were qualified as estimated (J) and non-detect results were qualified as estimated (UJ).

Note. A = acceptable under Contract Laboratory Requirements.

Photograph 1: East side of Torpedo Rework Facility.

Photograph 2: Bulk waste storage area at Torpedo Rework Facility.