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FINAL FEASIBILITY STUDY FOR OPERABLE UNIT 5 (OU 5) SITE 15 BLUE 10 ORDNANCE DISPOSAL AREA VOLUME 3 OF 3 APPENDICES C THROUGH H NAS CECIL FIELD FL
4/1/2007
TETRA TECH NUS INC

Comprehensive Long-term Environmental Action Navy

CONTRACT NUMBER N62467-94-D-0888

Feasibility Study Report for Operable Unit 5, Site 15 Blue 10 Ordnance Disposal Area

Volume III of III - Appendices C through H

Naval Air Station Cecil Field
Jacksonville, Florida

Contract Task Order 0039

April 2007

NAVFAC
Naval Facilities Engineering Command
Southeast
2155 Eagle Drive
North Charleston, South Carolina 29406

TETRA TECH NUS, Inc.

APPENDIX C

WETLANDS DELINEATION REPORT

Wetland Delineation Report
for
Operable Unit 5, Site 15

Naval Air Station Cecil Field
Jacksonville, Florida

Southern Division
Naval Facilities Engineering Command
Contract Number N62467-94-D-0888

Contract Task Order 0039

December 2003

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WETLAND DELINEATION REPORT
FOR
OPERABLE UNIT 5, SITE 15

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

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DECEMBER 2003

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ACRONYMS

ABB-ES	ABB Environmental Services, Inc.
BCT	BRAC Cleanup Team
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLEAN	Comprehensive Long-Term Environmental Action Navy
CFR	Code of Federal Register
COE	United States Army Corps of Engineers
CTO	Contract Task Order
DBH	Diameter at breast height
F.A.C.	Florida Administrative Code
FAC	Facultative plant
FACU	Facultative upland plant
FACW	Facultative wet plant
FDEP	Florida Department of Environmental Protection
FLUCFCS	Florida Land Use, Cover, and Form Classification System
FWS	United States Fish and wildlife Service
HASP	Health and Safety Plan
IR	Installation Restoration
NAS	Naval Air Station
NAVFACENGCOM	Naval Facilities Engineering Command
NRCS	Natural Resources Conservation Service
NPL	National Priorities List
OBL	Obligate plant
OU	Operable Unit
PFO	Palustrine Forested
SAF	Society of American Foresters
SCS	Soil Conservation Service
TtNUS	Tetra Tech NUS, Inc.
UPL	Upland plant
USC	United States Code
USCS	United Soil Classification System
U.S. EPA	United States Environmental Protection Agency
UST	Underground storage tank
UXO	Unexploded ordnance
WRPA	Wetlands Rapid Assessment Procedure

1.0 INTRODUCTION

A wetland delineation was conducted in October 2003 for that part of the Naval Air Station (NAS) Cecil Field in Jacksonville, Florida designated as Installation Restoration (IR) Program Site 15. Chemical contamination on Site 15 will be remediated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) [42 United States Code (USC) 9601 *et seq.*]. The delineation was performed by J. Peyton Doub, CEP, PWS of the Germantown, Maryland office of Tetra Tech NUS and Michael Whitten of the Aiken, South Carolina office of Tetra Tech NUS. The delineation identified areas meeting the definition of wetlands used by the U.S. Environmental Protection Agency (U.S. EPA) and U.S. Army Corps of Engineers (COE) under Section 404 of the Clean Water Act (33 USC 1344). The delineation also identified areas meeting the definition of wetlands used by the Florida Department of Environmental Protection (FDEP) and St. Johns River Water Management District under Chapter 62-340 of the Florida Administrative Code (F.A.C.).

Federal Wetland Definition: The definition of wetlands recognized by COE and U.S. EPA is:

> "those areas that are inundated or saturated at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" [40 Code of Federal Register (CFR) 230.3 and 33 CFR 328.3].

Under this definition, wetlands may be either under the influence of tides (tidal) or unaffected by tides (nontidal). All wetlands in western Duval County, Florida (which includes NAS Cecil Field) are nontidal wetlands.

State of Florida Wetland Definition: Wetlands are defined in Subsection 373.019(17) of the Florida Statutes as:

> "those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands,

sloughs, wet prairies, riverine swamps and marshes, mangrove swamps and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto."

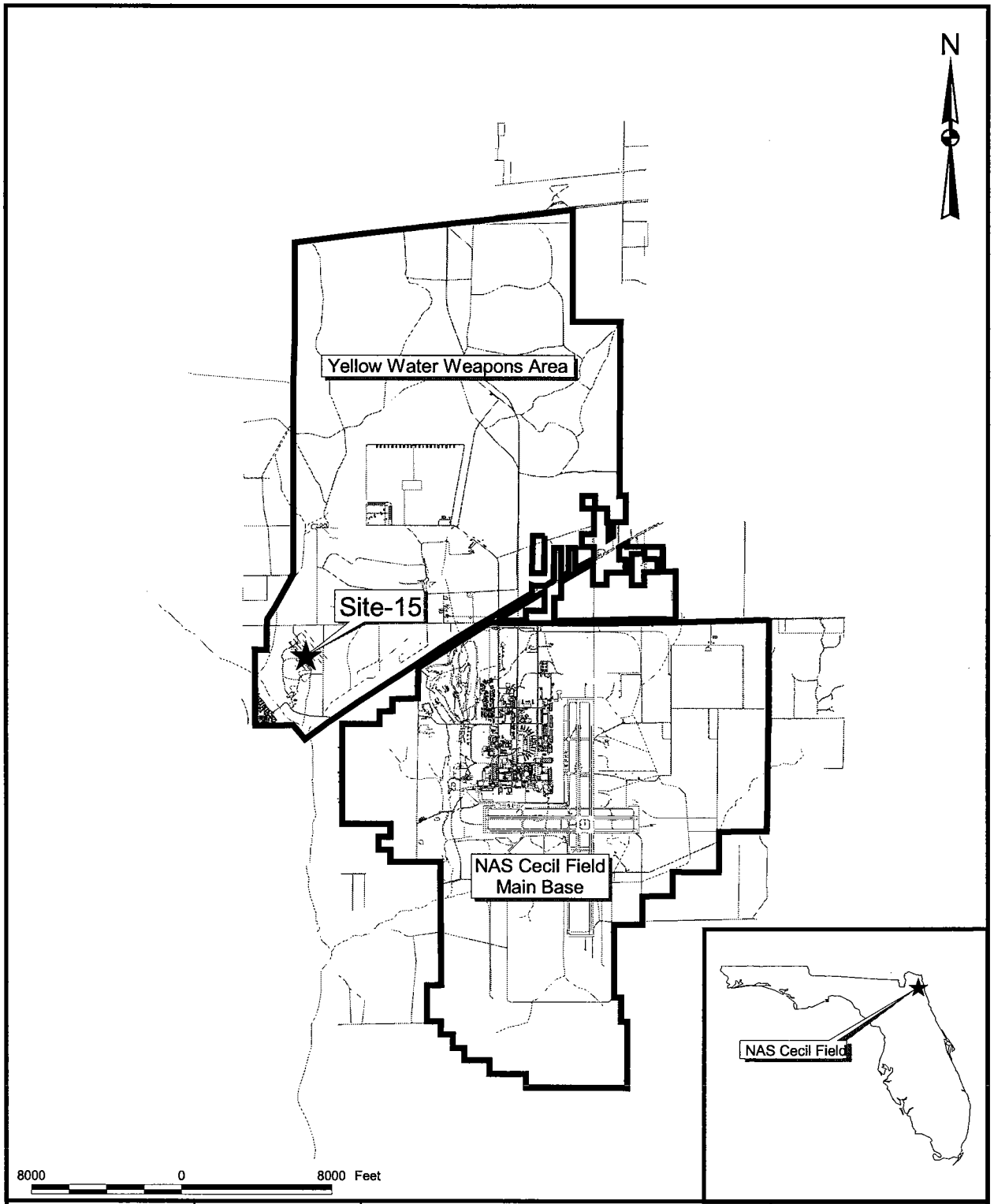
The federal and the Florida wetland definitions are generally similar. However, the Florida definition specifically clarifies that certain pine flatwood settings dominated by longleaf pine (*Pinus palustris*) or slash pine (*Pinus elliottii*) with an understory of saw palmetto (*Serenoa repens*) are not wetlands, even if they contain poorly drained soils that experience surface saturation for brief periods following heavy rainfall.

Overview of NAS Cecil Field: NAS Cecil Field is located in western Duval County, Florida, within the limits of the City of Jacksonville (Figure 1-1). In 1989, NAS Cecil Field was placed on U.S. EPA's CERCLA National Priorities List (NPL) as a result of pollution resulting from past waste disposal practices that predate CERCLA. In 1990, the Navy entered into a Federal Facilities Agreement with U.S. EPA to define the overall extent of contamination. NAS Cecil Field was closed in 1999 under the Base Closure and Realignment Act (BRAC). NAS Cecil Field includes approximately 35 individual sites where hazardous wastes may have been handled, spilled, or buried. As a result, work at the various sites has been grouped into eight operable units (OUs), as well as more than 100 other areas undergoing evaluation in the BRAC Underground Storage Tank (UST) program (TtNUS, 2003).

Overview of Site 15: Site 15, the Blue 10 Ordnance Disposal Area (and former trap and skeet range), is located in the southwestern part of the Yellow Water Weapons Area, a remote part of NAS Cecil Field (Figure 1-2). No actively used structures exist at the site, although several building foundations, burn pads, and a burn chamber remain. The site, which encompasses approximately 110 acres, is situated approximately 1,400 feet east of Caldwell Branch, which drains into Yellow Water Creek (ABB-ES, 1997).

From the early 1940s to the mid 1950s, the site was used as a skeet range. Ordnance was disposed of at Site 15 from the mid 1960s through 1977. Disposal consisted of burning ordnance materials in a large metal chamber and static firing of rockets. The ordnance disposal structures were located west of the skeet range. The majority of ordnance disposed of at the site was burned and included small arms munitions up to 20 millimeters in size, parachute and distress flares, Mark IV signal cartridges, rocket igniters, cartridge activated devices, and 2.75-inch and 5-inch rockets. Rocket propellant also was reportedly placed on the ground and ignited in the area of the burn chamber. An unexploded ordnance (UXO) survey completed at the site in 1995 found no UXO; however, several pieces of metal, shell casing, and similar items were located and removed (TtNUS, 2003).

Vegetative communities identified on Site 15 and adjoining areas in a 1995 site reconnaissance include mesic and wet slash pine flatwoods, disturbed uplands, mesic and wet mixed pine/hardwoods, pine flatwoods with attributes of a dry prairie, floodplain swamps with cypress dome swamp characteristics, man-made drainage ditches, and tannin-stained tributaries (ABB-ES, 1997). Investigations since 1995 have condensed the site to a smaller area consisting of mesic and wet pine flatwoods, disturbed uplands, mesic and wet mixed pine/hardwoods, and man-made drainage ditches. Of these habitats, wet pine flatwoods [generally corresponding to Florida Land Use, Cover, and Forms Classification System (FLUCFCS) Code 620], wet mixed pine/hardwoods (generally corresponding to FLUCFCS Code 630), and the man-made drainage ditches are wetland habitats. Mesic pine flatwoods (generally corresponding to FLUCFCS Code 411), mesic mixed pine/hardwoods (generally corresponding to FLUCFCS Code 434) and disturbed uplands are upland habitats. Almost all of the mesic pine flatwoods and mesic pine/hardwoods have been strongly influenced by past logging and planting of slash pine and might thus be better characterized as pine plantation land (FLUCFCS Code 441). A large area of mesic pine flatwoods in the central part of the site was recently clearcut and presently supports herbaceous and woody shrub and seedling vegetation, with scattered volunteer slash pine seedlings.



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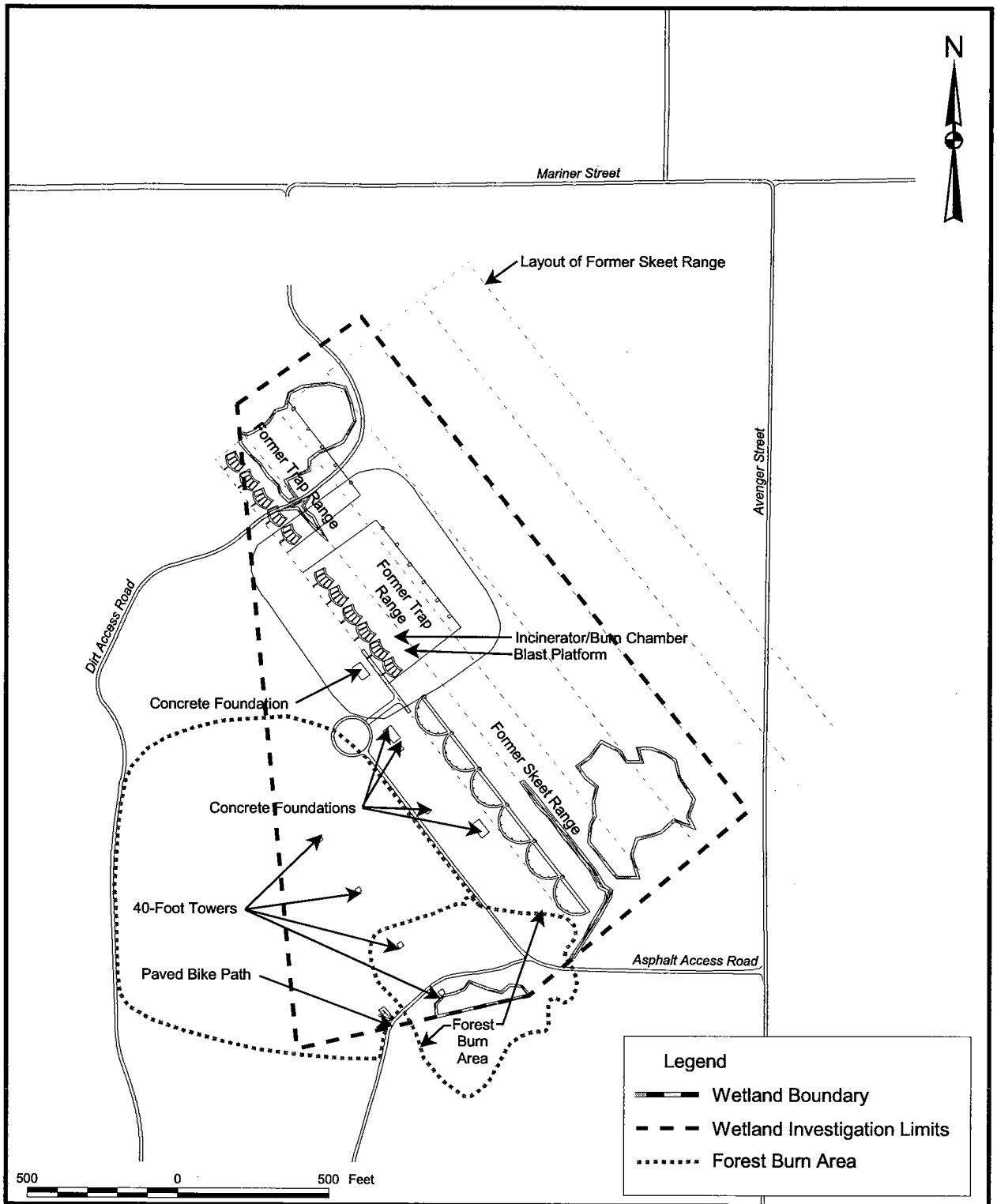

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SITE MAP
OU 5, SITE 15
WETLAND DELINEATION REPORT
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

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2.0 METHODOLOGY

Fieldwork for the wetland delineation was conducted between October 1 and 3, 2003. The wetland delineation followed two methodologies:

1) the routine onsite methodology outlined in the COE Wetlands Delineation Manual (1987 Manual) (Environmental Laboratory, 1987) and the COE memorandum on clarification and interpretation of that manual (COE, 1992); and
2) methodology outlined in the Florida Wetlands Delineation Manual (FDEP, 1994)

Federal Methodology: With a few exceptions referred to as problem areas, any area identified as a wetland according to the federal methodology (1987 Manual) must display positive evidence of each of the following three parameters indicative of wetland conditions:

- Hydrophytic Vegetation – Defined as the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content (Environmental Laboratory, 1987).

- Hydric Soil – Defined as a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (Environmental Laboratory, 1987). The 1987 Manual includes a list of field indicators of hydric soils for sandy and non-sandy soils which is designed for national application. The COE also allows the use of an expanded list of hydric soil field indicators that was developed by the National Technical Committee for Hydric Soils (NRCS, 1998).

- Wetland Hydrology – Defined as the sum total of wetness characteristics in areas that are inundated or have saturated soils for a sufficient duration to support hydrophytic vegetation (Environmental Laboratory, 1987). The 1987 Manual includes a list of six "primary" field indicators of wetland hydrology, designed for national application; and the COE has developed additional "secondary" field indicators that provide corroborating evidence of wetland hydrology (COE, 1992).

State of Florida Methodology: The Florida methodology requires that an area meet one of four tests to be identified as wetlands. Applying the tests requires that the vegetation, soils, and hydrology be characterized. To characterize the vegetation, the percent aerial cover for each plant species at representative locations must be estimated. The Florida methodology assigns one of the wetland indicator statuses listed in Table 2-1 to each plant species. The methodology requires identification of

one or more field indicators to determine whether hydric soils and wetland hydrology are present. The tests include:

- "A" Test [62-340.300(2)(a), F.A.C.]: The percent aerial cover by obligate (OBL) plant species must exceed the percent aerial cover by upland (UPL) plant species; and the presence of one or more field indicators of hydric soils <u>or</u> wetland hydrology.

- "B" Test [62-340.300(2)(b), F.A.C.]: The percent aerial cover by OBL and facultative wetland (FACW) plant species must total at least 80 percent of the total percent aerial cover by OBL, FACW, and UPL plant species; and the presence of one or more field indicators of hydric soils <u>or</u> wetland hydrology.

- "C" Test [62-340.300(2)(c), F.A.C.]: The presence of hydric soils in areas that have not been subject to artificial drainage, and are not pine flatwoods or improved pastures. Because Site 15 includes areas of pine flatwoods, the "C" Test can not be used.

- "D" Test [62-340.300(2)(d), F.A.C.]: The presence of field indicators for both hydric soils <u>and</u> wetland hydrology.

The FDEP has developed a list of field indicators applicable to those physiographic areas occurring in Florida (FDEP, 2003). Section 62-340.500 of the F.A.C. lists 13 field indicators of wetland hydrology. The Florida lists of hydric soil and wetland hydrology field indicators differ somewhat from the national lists recognized by the COE and U.S. EPA. Determining the presence of hydric soils and wetland hydrology for use in the Florida methodology requires the use of the field indicators approved by FDEP.

Description of Fieldwork: The fieldwork commenced with walking the site to identify areas potentially meeting the federal and/or Florida definitions of wetlands. Representative data collection points were selected at each potential wetland to record data used as the basis for determining the boundary. The data points were oriented on representative transects perpendicular to the hydrological gradient. For each transect, one data point was positioned approximately 10 feet down-gradient of the boundary (i.e., inside of the wetland) and one data point was positioned approximately 10 feet up-gradient of the boundary (i.e., outside of the wetland). For boundaries where the transition from wetlands to uplands is gradual, an additional data point was positioned on the boundary.

The percent aerial cover for each plant species in each vegetative stratum (tree canopy, subcanopy, and ground cover, as defined in Section 62-340.200 F.A.C.) was estimated for circular plots surrounding each data point (Table 2-2). Wetland indicator statuses developed by the U.S. Fish & Wildlife Service (FWS) (Reed, 1988; Table 2-3) and by the FDEP (in the "Vegetative Index" in Section 62-340.450 of the F.A.C.;

Table 2-1) were assigned to each plant species. A soil pit was hand augured at each data point location to a minimum depth of 18 inches and the color, texture, and other descriptive data were recorded for each encountered soil horizon. These observations were used to determine whether field indicators of hydric soils, as listed in the 1987 Manual and by the FDEP (FDEP, 2003), were present. Surface and subsurface observations were made at each data point to determine which field indicators of wetland hydrology, as listed in the 1987 Manual and Section 62-340.500 F.A.C., were present.

Wetland delineation data sheets presenting vegetation, soil, and hydrology data for each data point were completed and are provided in Appendix A. The data sheets are patterned after the format that is recommended by the COE (1992) but have been modified to present data required for the Florida methodology as well. Six wetland areas were identified on the site (designated as Wetlands A through F, see Section 3.0). Each wetland boundary was marked in the field using wooden stakes and orange ribbon. Each stake was labeled "WET 15-X-N", with "X" as a letter from A to F corresponding to the wetland area and "N" as the numeric order of the stake. The "15" refers to Site 15. A land survey depicting the location of each stake was subsequently completed in October 2003 and is the basis for the wetland delineation map provided in Section 3.0. Stakes were also placed at each data point location on each transect.

Consideration of Functions and Values: Wetland functions are physical, chemical, and biological processes or attributes of wetlands that are vital to the integrity of a wetland system, regardless of how those benefits are perceived by society. Wetland values are attributes that are not necessarily important to the integrity of a wetland system but which are perceived as valuable to society (Adamus et al., 1991). Table 2-4 lists several commonly recognized functions and values provided by wetlands. The discussion of the functions and values presented in this report for the wetlands delineated on Site 15 is subjective, and is intended only to contribute to a general description of the delineated wetlands. More rigorous quantitative and semi-quantitative models are available for assessing the functions and values of wetlands but are rarely necessary to support most permitting and planning decisions affecting wetlands.

The functions and values discussion for each wetland also includes an evaluation using the Wetland Rapid Assessment Procedure (WRAP) (Miller and Gunsalus, 1999). WRAP is a standardized rating index that can be used in combination with professional judgment to assess the relative quality and importance of a wetland. Variables considered in WRAP include:

1. Wildlife utilization;
2. Wetland overstory/shrub canopy;
3. Wetland vegetative ground cover;
4. Adjacent upland support/wetland buffer;

5. Field indicators of wetland hydrology; and
6. Water quality input and treatment systems.

Variables 1 and 4 correspond directly to the wildlife diversity/abundance and aquatic diversity/abundance functions. Variables 2, 3, and 4 pertain indirectly to habitat functions in that diverse and intact vegetation in the wetland and adjoining buffer generally indicate good habitat quality. Variable 6 corresponds directly to the sediment/toxicant retention and nutrient removal/transformation functions. Variables 2 and 3 consider the vegetative integrity of the wetland and thus indirectly pertain to its ability to perform functions dependent (at least in part) on vegetation such as groundwater recharge, floodflow alteration, sediment/shoreline stabilization, production export, and habitat quality. Variable 5 considers the hydrological integrity of the wetland and thus indirectly pertains to its ability to perform functions dependent (at least in part) on wetland hydrology such as groundwater recharge, groundwater discharge, and floodflow alteration. The four values listed in Table 2-4 are not directly addressed in WRAP, but the parameters addressed by Variables 2, 3, 4, and 5 are indirectly relevant to the aesthetic, cultural, and/or educational value of a wetland.

TABLE 2-1

STATE OF FLORIDA WETLAND PLANT INDICATOR STATUSES
SITE 15 WETLAND DELINEATION
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Indicator Status	Abbreviation	Definition[1,2]
Obligate Plant	OBL	Plant species which under natural conditions are only found or achieve their greatest abundance in an area which is subject to surface water inundation and/or soil saturation. Some obligate plant species can be observed in an upland, especially under a controlled environment. Included in this category are the littoral plants and emergent aquatics, such as *Nymphaea* spp. (water lilies), *Nelumbo* spp. (lotus), and *Nuphar luteum* (spatterdock).
Facultative Wet Plant	FACW	Plants which under natural conditions typically exhibit their maximum cover in areas subject to surface water inundation and/or soil saturation, but can also be found in an upland.
Facultative Plant	FAC	Plants which are so problematic in their distribution as to render them inappropriate for indicating inundation or soil saturation. Specifically included are exotic plants with a weedy distribution. Facultative plants are not used when evaluating the dominance of plants species or when determining the appropriate strata.
Upland Plant	UPL	Plants not specifically identified as OBL, FACW, or FAC in the "Vegetative Index" in Section 62-340.450 of the F.A.C.

1 - Source: FDEP, 1994 and "Vegetative Index" in Section 62-340.450 of the F.A.C.
2 - The State of Florida does not recognize definitions for facultative upland or obligate upland plants.

TABLE 2-2

DEFINITIONS OF VEGETATION STRATA USED IN WETLAND DELINEATION
SITE 15 WETLAND DELINEATION
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Stratum	Symbol	Definition[1]	Plot Diameter[2] (feet)
Canopy	C	Often referred to as the top layer of the forest. The definition in the rule further qualifies the characteristics as woody plants or palms with a main trunk at least 4 inches in diameter (four inches wide) at a point 4.5 feet above the base of the tree (Diameter at Breast Height - DBH). If the tree is on a slope, the diameter is measured from the midpoint of the base of the tree on the slope. Vines are not considered for this or any other vegetative evaluation.	30
Subcanopy	S	Generally thought of as the smaller trees and tall shrubs in the forest. It is typically the middle of the three vegetative layers considered in the vegetation analysis. A plant must have a main stem more than 4.5 feet tall and greater than 1" in diameter to be in the subcanopy. Most species of palms will not be in the subcanopy category if their diameter is greater than 4.5" when the trunk is at least 4.5 feet tall.	15
Ground Cover (Herbaceous)	H	Includes all plants which are less than 4.5' tall or have a DBH of less than 1". Vines are not considered. Groundcover is the lower most of the three layers of vegetation which are evaluated for the vegetation analysis.	5

1 - Source: FDEP, 1994.
2 - Plot size used for visually estimating percent aerial cover for plant species (circular plots).

TABLE 2-3

FEDERAL PLANT WETLAND INDICATOR STATUSES
SITE 15 WETLAND DELINEATION
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Indicator Status	Abbreviation	Definition[1]
Obligate Wetland	OBL	Species recognized as occurring in wetlands greater than 99 percent of the time.
Facultative Wetland	FACW	Species recognized as occurring in wetlands 67 to 99 percent of the time.
Facultative	FAC	Species equally likely to occur in wetlands or uplands (nonwetlands).
Facultative Upland	FACU	Species recognized as occurring in wetlands 1 to 33 percent of the time.
Obligate Upland	UPL	Species recognized as occurring in wetlands less than 1 percent of the time.

1 - Source: Reed, 1988.

TABLE 2-4

COMMON FUNCTIONS AND VALUES OF WETLANDS[1]
SITE 15 WETLAND DELINEATION
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Function	Description
Groundwater Recharge	Some wetlands function to catch and detain surface runoff, allowing at least some of the detained water to leach down into underlying aquifers. Wetlands capable of best performing this function tend to receive runoff from a large watershed, support dense vegetation, and have a narrow (constricted) outlet (or no outlet).
Groundwater Discharge	Some wetlands function as areas where groundwater is discharged to the surface. Such wetlands are commonly referred to as seeps or springs and represent a means by which wildlife inhabiting the surface can access water reserves held in the ground.
Floodflow Alteration	Some wetlands function to slow the overland runoff of floodwaters, thereby reducing peak flow levels following heavy precipitation events. Wetlands capable of best performing this function tend to be located in the upper parts of the watershed to stream systems.
Sediment/ Shoreline Stabilization	Vegetation in wetlands bordering streams and other water bodies can stabilize banks and shorelines against erosion caused by currents and waves.
Sediment/ Toxicant Retention	Some wetlands serve to detain surface flow (surface runoff or channel flow) allowing some suspended sediments, toxicants, and/or pathogens to settle out into the wetland soil, thereby preventing their migration into downstream waters. Wetlands capable of best performing this function tend to support dense vegetation, have constricted (or no) outlets, and be located near disturbed soils or toxicant sources.
Nutrient Removal/ Transformation	Some wetlands serve to detain surface flow (surface runoff or channel flow) allowing nutrients such as nitrogen and phosphorus to settle out into the wetland soil, thereby preventing their migration into downstream waters. High nutrient levels in water bodies cause eutrophication, a condition where undesirable algal growths deplete dissolved oxygen and interfere with other aquatic biota. Wetlands capable of best performing this function tend to support dense vegetation, have constricted (or no) outlets, and be located near areas of heavy fertilizer use.
Production Export	Some wetlands serve as sources of biomass, nutrients, and food sources supporting aquatic ecosystems in downgradient water bodies. Wetlands capable of best performing this function tend to have dense, diverse vegetation and be connected to areas of open water.
Aquatic Diversity/ Abundance	Wetlands adjoining or forming a part of streams, lakes, and other areas of open water tend to provide specialized habitat for many species of fish and other aquatic biota, thereby enhancing the diversity of aquatic ecosystems.
Wildlife Diversity/ Abundance	Wetlands provide favored habitat for many amphibian, reptile, bird, and mammal species. The exact species of wildlife attracted by a wetland depends largely on the wetland's vegetation composition.

TABLE 2-4

COMMON FUNCTIONS AND VALUES OF WETLANDS[1]
SITE 15 WETLAND DELINEATION
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Function	Description
Recreation	Many wetlands provide opportunities for recreational activities such as hiking, canoeing, boating, fishing, and hunting. The recreational value of a wetland depends not only on its physical characteristics but also on its public accessibility and proximity to population centers.
Uniqueness/ Heritage	Many wetlands are inherently "special" places that reflect or contribute to the history and/or culture of the surrounding region.
Educational/ Scientific Value	Many wetlands, especially wetlands that have experienced little human alteration or disturbance, are of value for scientific research and/or for public outdoor education. The location of a wetland on public land and/or in close proximity to schools enhances this value.
Visual Quality/ Aesthetics	Especially in urban/suburban settings, many wetlands are visually pleasing natural areas that can buffer, screen, or offset the visual impacts of developed areas.

1 - Source: Adamus et al., 1991 and De Santo and Flieger, 1995.

3.0 RESULTS AND DISCUSSION

Six wetland areas (Wetlands A, B, C, D, E, and F) were identified within the area addressed by the wetland delineation (Figures 3-1, 3-2, and 3-3).

1. Wetland A is a forested wetland situated in the northwest part of Site 15 (Figure 3-1). It lies within a shallow topographic depression of roughly 1.7 acres that is connected by a narrow drainage ditch to a broader zone of forested wetlands adjoining Caldwell Branch, a non-tidal tributary to Yellow Water Creek.

2. Wetland B is a forested wetland situated in a narrow swale immediately east of Wetland A (Figure 3-1). It encompasses less than 0.1 acre. The wetland status of the swale appears to be the result of past construction of an elevated road bed without a culvert or other feature to allow surface water to drain out and into Wetland A. Wetland B is separated from Wetland A only by the road bed.

3. Wetland C is a forested wetland situated in the south-central part of Site 15 (Figure 3-3). Wetland C comprises the northern edge of a broad wetland area associated with the headwaters of an unnamed tributary to Yellow Water Creek.

4. Wetland D is a forested wetland situated in the southeast part of Site 15 (Figure 3-2). It is a roughly ovular depression suggestive of a small cypress dome, although the characteristic cypress-dominated vegetation has been altered by past logging and pine planting activity.

5. Wetland E is a drainage ditch roughly 10 to 20 feet in width beginning just northwest of Wetland D and proceeding directly south (Figure 3-2). The ditch is a headwater of the unnamed tributary to Yellow Water Creek associated with Wetland C.

6. Wetland F is a small man-made pit measuring less than 0.1 acre situated in the southwestern part of Site 15 (Figure 3-3). The pit is surrounded by uplands that have been recently clearcut.

Appendix A includes completed data sheets for each data point shown in Figures 3-1, 3-2, and 3-3. The data sheets summarize field observations of vegetation, soils, and hydrology for each data point on representative transects perpendicular to the delineated wetland boundaries. The sections below summarize the vegetation, soils, hydrology, classification, and functions and values for each delineated wetland. The sections focus on each wetland as a whole rather than on specific data point locations.

3.1 WETLAND A

Wetland A is a forested wetland situated in the northwest part of Site 15 (Figure 3-1; Photo 1). It lies within a shallow topographic depression of roughly 1.7 acres that is connected by a narrow drainage ditch to a broader zone of forested wetlands adjoining Caldwell Branch, a tributary to Yellow Water Creek. The wetland delineation addressed the entire depression but did not extend to the broader band of wetlands adjoining Caldwell Branch, which lies outside of Site 15.

Vegetation: Vegetation throughout Wetland A is dominated by slash pine, a needle-leaved evergreen tree. Many of the slash pines are 12 to 18 inches in diameter at breast height (DBH). Pond cypress (*Taxodium ascendens*), a needle-leaved deciduous tree, occurs throughout the wetland, especially in the center. Most of the pond cypress trees are less than 6 inches DBH. The subcanopy consists of widely scattered red maple (*Acer rubrum*), sweetbay (*Magnolia virginiana*), wax myrtle (*Myrica cerifera*), and gallberry (*Ilex glabra*). The groundcover consists of scattered patches of cinnamon fern (*Osmunda cinnamomea*), pitcher plants (*Sarracenia* sp.), royal fern (*Osmunda regalis*), and Virginia chain fern (*Woodwardia virginica*) (Photos 2 and 3). Occasional seedlings of gallberry and wax myrtle also occur in the groundcover.

Vegetation in the uplands adjoining Wetland A consists of rows of planted slash pine with a dense understory of saw palmetto (Photo 4). In contrast to the wetlands, most of the slash pine in the uplands is less than 8 inches DBH. The saw palmetto understory terminates abruptly close to the delineated wetland boundary, and its presence is the most visible contrast between the upland and wetland vegetation. Pond cypress occurs only inside the wetland boundary. The dense patches of fern groundcover occur primarily within the wetland boundary although a few small patches, especially of cinnamon fern, occur in isolated locations in the uplands.

The vegetation in Wetland A appears to correspond to the Society of American Foresters (SAF) Forest Cover Type 84, Slash Pine Forest (Eyre, 1980). The native range of Slash Pine Forest reportedly extends from the southern tip of South Carolina south to central Florida and west along the Coastal Plain to southeast Louisiana. Typical undergrowth in Slash Pine Forest on moist to wet sites (such as Wetland A) is described as including wax myrtle, gallberry, buckwheat tree (*Cliftonia monophylla*), dahoon (*Ilex cassine*), yaupon (*Ilex vomitoria*), and pitcher plant. Typical undergrowth in Slash Pine Forest on better drained soils includes pineland three-awn (*Aristida stricta*), saw-palmetto, gallberry, Curtis dropseed (*Sporobolus curtissii*), dwarf huckleberry (*Gaylussacia dumosa*), ground blueberry (*Vaccinium* sp.), yaupon, and dahoon (Eyre, 1980).

All of the dominant plant species in Wetland A are assigned indicator statuses of OBL, FACW, or FAC for the southeastern United States by the FWS (Appendix A, Data Point 15A-1-1), and hence the vegetation

is hydrophytic according to the Federal criteria. The frequent occurrence of pond cypress knees, a morphological plant adaptation to wet conditions, supports the hydrophytic status of the vegetation. Two out of the three dominant species in the adjoining upland vegetation also have a FWS indicator status of FACW (Appendix A, Data Point 15A-1-3), and thus that vegetation also technically meets the minimum Federal criteria for hydrophytic vegetation. However, the dense undergrowth by saw palmetto, which is a plant that favors well-drained soils and which is assigned an indicator status of UPL by the FWS, and the absence of morphological plant adaptations suggests that the upland vegetation does not meet the intent of the federal definition of hydrophytic vegetation.

The State of Florida considers slash pine, which is dominant in the canopy, to be an UPL species. However, the canopy and subcanopy vegetation has been substantially altered by past forest management activities. Reasonable scientific judgment suggests that the vegetation is indicative of wetlands, considering the frequency of state-designated FACW and OBL fern species in the groundcover, the presence of morphological plant adaptations, and the ability of slash pine and gallberry to grow in wetland as well as upland conditions.

Soils: Soils in the vicinity of Wetland A (including the surrounding uplands) are mapped as Olustee fine sand, which is described as a nearly level, poorly drained soil in broad flatwood areas. The typical soil profile is described as including a 6-inch surface layer (topsoil) of black fine sand. The upper part of the subsoil is described as consisting of a 5-inch layer of very dark gray fine sand overlying a 10-inch layer of black fine sand. Below the upper subsoil is a 15-inch layer of gray fine sand. The lower part of the subsoil (between 36 and 54 inches below the surface) is described as gray sandy clay loam. Under natural conditions, the water table is described as occurring at a depth of less than 10 inches below the surface for 2 to 4 months and at a depth of 10 to 30 inches below the surface for 2 to 8 months in a normal year (SCS, 1978).

Soils observed in the wetland during the wetland delineation (Appendix A, Data Point 15A-1-1) displayed a roughly 3-inch surface layer of black (2.5Y 2.5/1) fine sand overlying more than 15 inches of gray and dark gray (polychromatic mixture of 2.5Y 5/1 and 2.5Y 4/1) fine sand. This is generally consistent with the upper part of the typical soil profile description for an Olustee fine sand. The upper part of the soil profile in the adjoining uplands did not differ distinctively from that in the wetlands. The placement of the delineated wetland boundary reflected changes in vegetation and observed hydrological field indicators rather than changes in soil characteristics.

The dark surface layer reflects a high organic content, which (for a sandy soil) is one of the Federal hydric soil field indicators presented in the 1987 Manual. The dark surface layer is also one of the field indicators of hydric soil recognized by the FDEP (Field Indicator S7). The adjoining upland soils (Appendix A, Data Point 15A-1-3) displayed a less pronounced dark surface layer, but the transition from a hydric to clearly non-hydric

soil morphology is very gradual. This observation is consistent with the fact that the entire landscape surrounding Wetland A is mapped in the poorly drained Olustee and Ridgeland soil series, including areas that clearly display upland vegetation and/or hydrology.

Hydrology: Soils were saturated to the surface throughout Wetland A at the time of the wetland delineation. The observed depth to the water table at the outer edge of the wetland (Appendix A, Data Point 15A-1-1) was 6 inches below the surface. The capillary fringe was keeping the surface saturated. Isolated pools of shallow (1-2 inches) standing water were observed in the central part of the wetland (Photo 5).

June through September are typically the rainiest months in Jacksonville, with October beginning a relatively dry fall and winter period. For a period between 1961 and 1990, Jacksonville has averaged about 7.1 inches of rain in September, compared to only about 2.9 inches for October (World Weather Information Service, 2003). Precipitation over a broad period preceding the wetland delineation has generally been normal, with Jacksonville receiving 39.55 inches of rain in 2003 as of October 1, 2003 versus an average of 43.79 inches for the same period (Weather Underground, 2003). The most recent substantial rainfall preceding the delineation was approximately 1.5 inches on September 26, 2003 (Weather Underground, 2003). Jacksonville's growing season is long. The average data of the first freeze is December 16, and the average date of the last freeze is February 6 (SCS, 1978). The wetland delineation, which was conducted in October, therefore clearly fell during the growing season. Based on the data summarized above, the visual observation of saturated surface soils at the time of the delineation therefore supports the presence of wetland hydrology. Likewise, one would expect the visual absence of saturated soil conditions at that time to indicate the absence of wetland hydrology.

It is furthermore noted that the pond cypress knees observed throughout much of Wetland A (Photo 1) constitute a morphological plant adaptation to saturated soil conditions. Such morphological plant adaptations constitute one of the field indicators of wetland hydrology listed in Section 62-340.500 of the F.A.C. Additionally, the soil surface throughout much of Wetland A displayed distinct hummocks, another wetland hydrology field indicator in Section 62-340.500 of the F.A.C.

Soils just outside of the delineated wetland boundary (Appendix A, Data Point 15A-1-3) were not saturated to the surface at the time of the wetland delineation and did not display morphological plant adaptations or hummocking.

Classification: Wetland A meets both the federal and Florida criteria for a wetland. Wetland A would be classified as Palustrine Forested (PFO). The Palustrine system is described by the FWS as consisting of nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens (as well as tidal wetlands whose salinity is less than 0.5 parts per thousand) (Cowardin et al., 1979).

Functions and Values: Groundwater recharge and discharge are not key issues in northern Florida, which has abundant precipitation and extensive areas of surface water. Flooding, which can be reduced by the presence of wetlands, is likewise not a key issue in inland areas of northern Florida, considering the nearly level topography and substantial distance from the coast. Wetland A lacks and is not contiguous to open water, thus it does not play a role in sediment and shoreline stabilization.

The dense understory in Wetland A helps enable it to effectively retain sediments and toxicants. The vegetation may have helped toxicants related to Site 15's history from migrating offsite and into Caldwell Creek. However, the watershed contributing runoff to Wetland A is completely forested; thus, the ability of the wetland to trap sediment and nutrients is likely of little importance. The dense and diverse vegetation in Wetland A and its surface connection to Caldwell Creek suggest a possible role with respect to production export.

The diverse vegetation in, and minimal human disturbance of, Wetland A and the surrounding uplands suggest that the wetland may provide good wildlife habitat (wildlife diversity/abundance function). Because Wetland A lacks open water, it does not directly provide aquatic habitat (aquatic diversity/abundance function), but its production export function could contribute to the quality of aquatic habitat in Caldwell Creek.

Wetland A appears to be of substantial importance with respect to each of the four wetland values noted in Table 2-4. Once Site 15 is successfully cleaned up, it and the surrounding area will likely be open to the public and provide valuable opportunities for hiking, bird watching, and perhaps hunting to residents of nearby urban areas. As urban areas in the City of Jacksonville expand westward, the complex of natural wetlands and uplands on and around Site 15 (including Wetland A) could be of increasing importance with respect to uniqueness/heritage, educational/ scientific value, and visual quality/aesthetics. The aesthetics and educational importance of Wetland A are strengthened by the fact that the adjoining uplands and up-gradient watershed are almost completely forested rather than used for urban uses or agriculture.

Wetland A scored 0.81 (out of a possible 1.00) using WRAP (Appendix B). This score suggests a wetland of relatively high ecological and human value that deserves protection to the extent possible. The high score primarily reflects the wetland's natural vegetation, relatively intact hydrology, and relatively undeveloped forest setting.

3.2 WETLAND B

Wetland B is a forested wetland situated in a narrow swale immediately east of Wetland A (Figure 3-1; Photo 6). It encompasses less than 0.1 acre. Wetland conditions appear to be the result of past construction of an elevated dirt road bed across the swale without including a culvert or other feature that

allows surface water to drain from the swale to Wetland A. Wetland B is separated from Wetland A only by the dirt road bed. Wetland B lies entirely within Site 15 and was therefore delineated in its entirety.

Vegetation: Wetland B supports planted slash pine trees in rows that are part of the same grid of planted pine rows in the adjoining uplands. Most of the pines are under 6 inches DBH. Pines closest to the western (down-gradient) part of the swale appear to have been stressed by excessive soil saturation, and a gap in the pine canopy in that part of the wetland supports a dense and diverse patch of herbaceous vegetation (Appendix A, Data Point 15B-1-1) (Photo 7). The herbaceous vegetation includes plants of the genera *Rhynchospora*, *Iris*, and others.

Soils: Soils in the vicinity of Wetland B (including the surrounding uplands) are mapped as Ridgeland fine sand and as Olustee fine sand. The Ridgeland fine sand is described as a nearly level, poorly drained soil in broad flatwood areas. The typical soil profile is described as including a 6-inch surface layer (topsoil) of very dark gray fine sand. The upper part of the subsoil is described as a dark brown fine sand extending from 6 to 16 inches below the surface. Below the upper subsoil is a 15-inch thick layer described as very pale brown fine sand. The lower part of the subsoil, extending to a depth of 80 inches beneath the surface, is described as dark reddish brown and black fine sand (SCS, 1978).

The Olustee fine sand is described as a nearly level, poorly drained soil in broad flatwood areas. The typical soil profile is described as including a 6-inch surface layer (topsoil) of black fine sand. The upper part of the subsoil is described as consisting of a 5-inch layer of very dark gray fine sand overlying a 10-inch layer of black fine sand. Below the upper subsoil is a 15-inch layer of gray fine sand. The lower part of the subsoil (between 36 and 54 inches below the surface) is described as gray sandy clay loam. Under natural conditions, the water table is described as occurring at a depth of less than 10 inches below the surface for 2 to 4 months and at a depth of 10 to 30 inches below the surface for 2 to 8 months in a normal year (SCS, 1978).

Soils observed in Wetland B during the wetland delineation displayed a roughly 3-inch surface layer of very dark gray (2.5Y 3/1) fine sand overlying more than 15 inches of dark grayish brown (2.5Y 4/2) fine sand (Appendix A, Data Point 15B-1-1). This is generally consistent with the upper part of the typical soil profile described for the Ridgeland fine sand soils (SCS, 1978). However, the shallow thickness of the dark surface layer and the absence of distinctly black or gray coloration in the upper subsoil suggest a history of better drainage than is expected for Ridgeland soils. The soil profile in Wetland B is not as visibly suggestive of hydric soils as are the soil profiles observed in the larger wetlands on Site 15 (i.e., Wetlands A, C, and D). Wetland B may not have historically been a wetland. Its wetland characteristics appear to instead be the result of runoff ponded by the adjoining roadbed. However, any soils that are ponded for a long or very long duration during the growing season still meet the technical definition of hydric soils used by Florida and

federal agencies. Thus, the soils in Wetland B still appear to be hydric, despite the weak evidence provided by the soil profile. The soil profile in the adjoining upland soils (Appendix A, Data Point 15B-1-2) generally appeared similar to that in the wetland, but is even less suggestive of hydric soil.

Hydrology: The soil surface was saturated in the downgradient (northern) part of Wetland B at the time of the wetland delineation (Appendix A, Data Point 15B-1-1). Watermarks on the trunks of pine trees in the remainder of Wetland B (faintly visible in Photo 6) suggest that ponded water is periodically present throughout the wetland. Wetland B appears to be the result of localized ponding of surface runoff caused by the adjoining roadbed rather than the result of a seasonal high water table. The soil surface outside of the delineated wetland boundary was not saturated at the time of the wetland delineation, and the trunks of pine trees outside of the delineated wetland boundary did not display evidence of water marks.

Classification: Wetland B meets both the federal and Florida criteria for a wetland. Wetland B would be classified as Palustrine Forested (PFO). The Palustrine system is described by the FWS as consisting of nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens (as well as tidal wetlands whose salinity is less than 0.5 parts per thousand) (Cowardin et al., 1979).

Functions and Values: Groundwater recharge and discharge are not key issues in northern Florida, which has abundant precipitation and extensive areas of surface water. Flooding, which can be reduced by the presence of wetlands, is likewise not a key issue in inland areas of northern Florida, considering the nearly level topography and substantial distance from the coast. Wetland B lacks and is not contiguous to open water, thus it does not play a role in sediment and shoreline stabilization.

The dense understory in much of Wetland B may enable it to retain sediments and toxicants. The vegetation may have helped reduce the entry of some toxicants originating in areas to the south (upgradient) from migrating in runoff to Wetland A. However, the watershed contributing runoff to Wetland A is completely forested; thus, the ability of the wetland to trap sediment and nutrients is likely of little importance. Wetland B is too small and lacks a direct surface outlet to other wetlands and water; therefore it does not likely play a significant role with respect to production export.

Although the diverse vegetation in Wetland B could provide quality habitat for some wildlife, the wetland's small size and proximity of several larger wetlands (including Wetland A) could render it of little importance as wildlife habitat (wildlife diversity/abundance function). Because Wetland B lacks permanent open water, it does not directly provide substantial aquatic habitat (aquatic diversity/abundance function).

Although most wetlands on Site 15 could be of substantial importance with respect to each of the wetland values noted in Table 2-4, its small size and artificial origin likely render its contribution insignificant.

Wetland B scored 0.61 (out of a possible 1.00) using WRAP (Appendix B). This score suggests a wetland of mediocre ecological and human value, but still a habitat deserving of protection to the extent possible. The lower score relative to that for Wetland A primarily reflects its artificial hydrology (runoff impounded by man-made road bed) and dominance by planted pine.

3.3 WETLAND C

Wetland C is a forested wetland situated in the south-central part of Site 15 (Figure 3-3; Photo 8). Wetland C comprises the northern edge of a broad wetland area associated with the headwaters of an unnamed tributary to Yellow Water Creek. Because Wetland C is located on the southern edge of Site 15, only the northern boundary of the wetland was delineated. The wetland extends southward for an undetermined distance and is contiguous to large areas of undelineated wetlands adjoining the unnamed tributary.

Vegetation: Vegetation in the northern part of Wetland C (that part addressed in the wetland delineation for Site 15) is dominated by slash pine, a needle-leaved evergreen tree. Many of the slash pines are 12 to 18 inches DBH. In contrast to pine-dominated vegetation in Wetlands A and B, pond cypress does not occur in the northern part of Wetland C, but black gum (*Nyssa sylvatica*) occurs frequently in the canopy and subcanopy. The subcanopy generally resembles that described for Wetland A. The groundcover is characterized by scattered patches of cinnamon fern and Virginia chain fern. The vegetation in Wetland C appears to correspond to SAF Forest Cover Type 84, Slash Pine Forest (Eyre, 1980), which is described above in Section 3.1 for Wetland A.

The northern boundary of Wetland C (upper part of Photo 8) generally corresponds to the southern edge of a large upland clearcut occupying much of the central part of Site 15. The clearcut (overview in Photo 9) consists of a dense cover of slash pine and hardwood seedlings, gallberries and myrtles (shrubs), patches of blackberry (*Rubus* sp.), and herbaceous old field vegetation.

All of the dominant plant species in Wetland C are assigned indicator statuses of OBL, FACW, or FAC for the southeastern United States by the FWS, and hence the vegetation is hydrophytic according to the Federal criteria. The State of Florida considers slash pine, which is dominant in the canopy, to be an UPL species. However, the canopy and subcanopy vegetation has been substantially altered by past forest management activities. Reasonable scientific judgment suggests that the vegetation is indicative of wetlands, considering the frequency of FACW and OBL fern species in the groundcover and the ability of slash pine and gallberry to grow in wetland as well as upland conditions.

Soils: Soils in the vicinity of Wetland C (including the surrounding uplands) are mapped as Olustee fine sand, which is described as a nearly level, poorly drained soil in broad flatwood areas. The typical soil profile is described as including a 6-inch surface layer (topsoil) of black fine sand. The upper part of the subsoil is described as consisting of a 5-inch layer of very dark gray fine sand overlying a 10-inch layer of black fine sand. Below the upper subsoil is a 15-inch layer of gray fine sand. The lower part of the subsoil (between 36 and 54 inches below the surface) is described as gray sandy clay loam. Under natural conditions, the water table is described as occurring at a depth of less than 10 inches below the surface for 2 to 4 months and at a depth of 10 to 30 inches below the surface for 2 to 8 months in a normal year (SCS, 1978).

Soils observed in the wetland during the wetland delineation (Appendix A, Data Point 15C-1-1) displayed a roughly 3-inch surface layer of black (2.5Y 2.5/1) fine sand overlying more than 15 inches of gray and black (polychromatic mixture of 2.5Y 5/1 and 2.5Y 2.5/1) fine sand. This is generally consistent with the upper part of the typical soil profile description for an Olustee fine sand. The dark surface layer reflects a high organic content, which (for a sandy soil) is one of the Federal hydric soil field indicators presented in the 1987 Manual. The dark surface layer is also one of the field indicators of hydric soil recognized by the FDEP (Field Indicator S7).

The upper part of the soil profile in the adjoining uplands (Appendix A, Data Point 15C-1-2) was generally similar but included a narrow band of very dark grayish brown soils (2.5Y 3/2) at an approximate depth of 3 to 8 inches. The transition from a hydric to clearly non-hydric soil morphology is very gradual. This observation is consistent with the fact that the entire landscape surrounding Wetland C is mapped in the poorly drained Olustee and Ridgeland soil series, including areas that clearly display upland vegetation and/or hydrology.

Hydrology: Soils were saturated to the surface throughout Wetland C at the time of the wetland delineation. The observed depth to the water table at the northern edge of the wetland (Appendix A, Data Point 15C-1-1) was 3 inches below the surface. The capillary fringe was keeping the surface saturated. As explained in Section 3.1 in the hydrology discussion for Wetland A, the wetland delineation, which was conducted in October, clearly fell during the growing season. The visual observation of saturated surface soils at the time of the delineation supports the presence of wetland hydrology. Saturated surface soils did not extend outside of the delineated wetland boundary for Wetland C (Appendix A, Data Point 15C-1-2).

Classification: Wetland C meets both the federal and Florida criteria for a wetland. Wetland C would be classified as Palustrine Forested (PFO). The Palustrine system is described by the FWS as consisting of nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens (as well as tidal wetlands whose salinity is less than 0.5 parts per thousand) (Cowardin et al., 1979).

Functions and Values: Groundwater recharge and discharge are not key issues in inland areas of northern Florida, which has abundant precipitation and extensive areas of surface water. Flooding, which can be reduced by the presence of wetlands, is likewise not a key issue in inland areas of northern Florida, considering the nearly level topography and substantial distance from the coast. Wetland A lacks and is not contiguous to open water, thus it does not play a role in sediment and shoreline stabilization.

The dense understory in Wetland C helps enable it to effectively retain sediments and toxicants. The vegetation may have helped toxicants related to Site 15's history from migrating offsite and into the tributary to Caldwell Creek. However, the watershed contributing runoff to Wetland C is completely forested; thus, the ability of the wetland to trap sediment and nutrients is likely of little importance. The dense and diverse vegetation in Wetland C and its surface connection to a tributary of Caldwell Creek suggest a possible role with respect to production export.

The diverse vegetation in, and minimal human disturbance of, Wetland C and the surrounding uplands suggest that the wetland may provide good wildlife habitat (wildlife diversity/abundance function). Because Wetland C lacks open water, it does not directly provide aquatic habitat (aquatic diversity/abundance function), but its production export function likely contributes to the quality of aquatic habitat in the tributary of Caldwell Creek.

Wetland C appears to be of substantial importance with respect to each of the four wetland values noted in Table 2-4. Once Site 15 is successfully cleaned up, it and the surrounding area could be opened to the public and provide valuable opportunities for hiking, bird watching, and perhaps hunting to residents of nearby urban areas. As urban areas in the City of Jacksonville expand westward, the complex of natural wetlands and uplands on and around Site 15 (including Wetland C) could be of increasing importance with respect to uniqueness/heritage, educational/ scientific value, and visual quality/aesthetics. The aesthetics and educational importance of Wetland A are strengthened by the fact that the adjoining uplands and up-gradient watershed are almost completely forested rather than used for urban uses or agriculture.

Wetland C scored 0.81 (out of a possible 1.00) using WRAP (Appendix B). This score suggests a wetland of relatively high ecological and human value that deserves protection to the extent possible. The high score primarily reflects the wetland's natural vegetation, relatively intact hydrology, and relatively undeveloped forest setting.

3.4 WETLAND D

Wetland D is a forested wetland situated in the southeast part of Site 15 (Figure 3-2; Photo 10). It is a roughly ovular depression suggestive of a small cypress dome, although the characteristic cypress-

dominated vegetation has been altered by past logging and pine planting activity. Wetland D lies entirely within Site 15 and therefore its entire boundary was delineated.

Vegetation: Vegetation throughout most of Wetland D consists of a sparse stand of widely scattered pond cypress with occasional slash pine saplings (Photo 10; Appendix A, Data Point 15D-1-1). All trees are under 6 inches DBH. Understory and groundcover vegetation is sparse to absent throughout most of the wetland. Vegetation in the southwestern quadrant of Wetland D; southwest of an imaginary line connecting wetland boundary flags 15-D-21 and 15-D-29 in Figure 3-2); generally resembles that described for Wetland A (Photo 11; Appendix A, Data Point 15D-2-1). It is dominated by mature slash pine trees, generally between 6 and 18 inches DBH, with scattered pond cypress saplings and dense understory and groundcover vegetation.

Vegetation in Wetland D is suggestive of a cypress dome that has been disturbed by logging and planting of slash pine. The few slash pines in the main part of Wetland D occur in rows suggestive of planting (Photo 12). Unlike in the adjoining uplands, the planted slash pines appear to be struggling, apparently stressed by inundated soil conditions suggested by watermarks on the bases of the tree trunks (see hydrology discussion below). It is not apparent why the pines in the southwestern quadrant of the wetland appear to be older, spared from recent logging activity. It is not clear whether the vegetation throughout Wetland D historically resembled that in the southwestern quadrant prior to logging or whether Wetland D once supported a stand of mature pond cypress.

Vegetation in the uplands adjoining Wetland D consists of rows of planted slash pine with a dense understory of saw palmetto. In contrast to the wetlands, most of the slash pine in the uplands is less than 8 inches DBH. As is true for Wetland A, the saw palmetto understory terminates abruptly close to the delineated wetland boundary, and its presence is the most visible contrast between the upland and wetland vegetation. Pond cypress occurs only inside the wetland boundary. The dense patches of fern groundcover occur primarily within the wetland boundary although a few small patches, especially of cinnamon fern, occur in isolated locations in the uplands.

The vegetation in the southwest quadrant of Wetland D appears to correspond to SAF Forest Cover Type 84, Slash Pine Forest (Eyre, 1980), which is described above in Section 3.1 for Wetland A. The vegetation in main part of Wetland D has been substantially disturbed and does not clearly resemble a particular forest cover type. It could be characterized as a disturbed example of either SAF Forest Cover Type 84 (Slash Pine Forest) or SAF Forest Cover Type 100 (Pondcypress Forest), which is described as forest vegetation dominated by pondcypress (Eyre, 1980).

All of the dominant plant species in Wetland A are assigned indicator statuses of OBL, FACW, or FAC for the southeastern United States by the FWS (Appendix A, Data Points 15D-1-1 and 15D-2-1), and hence the vegetation is hydrophytic according to the Federal criteria. The frequent occurrence of pond cypress knees, a morphological plant adaptation to wet conditions, supports the hydrophytic status of the vegetation. Most of the dominant species in the adjoining upland vegetation are FACW (Appendix A, Data Points 15D-1-3, 15D-1-4, and 15D-2-3), and thus that vegetation also technically meets the minimum Federal criteria for hydrophytic vegetation. However, the dense undergrowth by saw palmetto, an UPL plant that favors well-drained soils, and the absence of morphological plant adaptations suggests that the upland vegetation does not meet the intent of the federal definition of hydrophytic vegetation.

The State of Florida considers slash pine, which is dominant in the canopy, to be an UPL species. However, the canopy and subcanopy vegetation has been substantially altered by past forest management activities. Reasonable scientific judgment suggests that the vegetation is indicative of wetlands, considering the frequency of FACW and OBL fern species in the groundcover, the presence of morphological plant adaptations, and the ability of slash pine and gallberry to grow in wetland as well as upland conditions.

Soils: Soils in the vicinity of Wetland D (including the surrounding uplands) are mapped as Ridgeland fine sand, which is described as a nearly level, poorly drained soil in broad flatwood areas. The typical soil profile is described as including a 6-inch surface layer (topsoil) of very dark gray fine sand. The upper part of the subsoil is described as a dark brown fine sand extending from 6 to 16 inches below the surface. Below the upper subsoil is a 15-inch thick layer described as very pale brown fine sand. The lower part of the subsoil, extending to a depth of 80 inches beneath the surface, is described as dark reddish brown and black fine sand (SCS, 1978).

Soils observed in the wetland during the wetland delineation (Appendix A, Data Point 15D-1-1) displayed a roughly 2-inch surface layer of black (2.5Y 2.5/1) fine sand overlying more than 16 inches of dark gray (2.5Y 4/1) fine sand with streaks of very dark gray (2.5Y 3/1) fine sand. This is perhaps more consistent with the upper part of the typical soil profile description for an Olustee fine sand (see soils discussion for Wetland B), but is still clearly suggestive of a poorly drained soil. Soils in the southwestern quadrant of Wetland D displayed a generally similar soil profile (Appendix A, Data Point 15D-2-1). The dark surface layer reflects a high organic content, which (for a sandy soil) is one of the Federal hydric soil field indicators presented in the 1987 Manual. The dark surface layer is also one of the field indicators of hydric soil recognized by the FDEP (Field Indicator S7).

The upper part of the soil profile in the adjoining uplands did not greatly differ from that in the wetlands. The placement of the delineated wetland boundary generally reflects changes in vegetation and observed hydrological field indicators rather than changes in soil characteristics.

The adjoining upland soils (Appendix A, Data Points 15D-1-3 and 15D-2-3) displayed a generally similar soil profile to the soils in the wetland, and therefore also displayed similar Federal and Florida field indicators for hydric soils. The transition from hydric to clearly non-hydric soil morphology is obviously very gradual. This observation is consistent with the fact that the entire landscape surrounding Wetland D is mapped in the poorly drained Olustee and Ridgeland soil series, including areas that clearly display upland vegetation and/or hydrology.

Hydrology: Soils were saturated to the surface throughout Wetland D at the time of the wetland delineation. The observed depth to the water table at the outer edge of the wetland (Appendix A, Data Points 15D-1-1 and 15D-2-1) was 5-7 inches below the surface. The capillary fringe was keeping the surface saturated.

Classification: Wetland D meets both the federal and Florida criteria for a wetland. Wetland D would be classified as Palustrine Forested (PFO). The Palustrine system is described by the FWS as consisting of nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens (as well as tidal wetlands whose salinity is less than 0.5 parts per thousand) (Cowardin et al., 1979).

Functions and Values: Groundwater recharge and discharge are not key issues in inland areas of northern Florida, which has abundant precipitation and extensive areas of surface water. Flooding, which can be reduced by the presence of wetlands, is likewise not a key issue in inland areas of northern Florida, considering the nearly level topography and substantial distance from the coast. Wetland A lacks and is not contiguous to open water, thus it does not play a role in sediment and shoreline stabilization.

Unlike Wetlands A and C, most of Wetland D lacks a dense understory, and thus it could lack the capability to effectively retain sediments and toxicants, and it could possess a reduced capability to contribute to production export. It is unclear why a dense understory (at least one comprised of plant seedlings) is not present or whether a dense understory will result from natural succession. However, as for Wetlands A and C, the watershed contributing runoff to Wetland D is completely forested; thus, the ability of the wetland to trap sediment and nutrients could be of little importance.

The diverse vegetation in the surrounding uplands suggest that Wetland D could provide good wildlife habitat (wildlife diversity/abundance function), but the sparse understory suggests that the value of the wetland to wildlife could be less than that of Wetlands A and C. Because Wetland D lacks permanent open water, it does not directly provide substantial aquatic habitat (aquatic diversity/abundance function).

Wetland D appears to be of substantial importance with respect to each of the four wetland values noted in Table 2-4. Once Site 15 is successfully cleaned up, it and the surrounding area could be opened to the public and provide valuable opportunities for hiking, bird watching, and perhaps hunting to residents of nearby urban areas. As urban areas in the City of Jacksonville expand westward, the complex of natural wetlands and uplands on and around Site 15 (including Wetland D) could be of increasing importance with respect to uniqueness/heritage, educational/ scientific value, and visual quality/aesthetics. The aesthetics and educational importance of Wetland D are strengthened by the fact that the adjoining uplands and up-gradient watershed are almost completely forested rather than used for urban uses or agriculture.

Wetland D scored 0.67 (out of a possible 1.00) using WRAP (Appendix B). This score suggests a wetland of mediocre ecological and human value, but still a habitat deserving of protection to the extent possible. The lower score relative to that for Wetlands A and C primarily reflect the substantially sparser vegetation.

3.5 WETLAND E

Wetland E is a drainage ditch roughly 10 to 20 feet in width beginning just northwest of Wetland D and proceeding directly south (Figure 3-2; Photo 13). The ditch is a headwater of the unnamed tributary of Yellow Water Creek associated with Wetland C. The ditch is straight and of generally uniform width, suggesting that it is of man-made origin. It is between 5 and 15 feet wide on Site 15 and its banks are between 6 inches and 2 feet in height. It may have been dug to help drain Wetland D to facilitate the growth of planted pine. A segment of the ditch extending north from the asphalt access road to the ditch terminus north of Wetland D were delineated. That part of the ditch south of the asphalt access road is located outside of Site 15 and hence was not delineated.

Vegetation: Vegetative cover in the ditch is influenced by the shade of slash pines growing on the banks and adjoining uplands and therefore is generally sparse. Most of the plants that do grow in the ditch are FACW or OBL according to Federal and Florida criteria (Appendix A, Data Point 15E-1-1). It is therefore reasonable scientific judgment to conclude that the vegetation within the ditch is hydrophytic.

Soils: Soils were not a consideration in the delineation of Wetland E, which is a sharply defined drainage ditch. Because saturated and inundated conditions were observed in the ditch during the growing season, it is reasonable scientific judgment to assume that the soils in the ditch meet one of the following two technical criteria for hydric soil established by the Natural Resources Conservation Service (NRCS):

- Soils that are frequently ponded for long duration or very long duration during the growing season,

or

- Soils that are frequently flooded for long duration or very long duration during the growing season.

The NRCS further defines "frequently" with respect to ponding or flooding as an event likely to occur often under usual weather conditions (more than 50 percent chance in any year, or more than 50 times in 100 years).

Hydrology: Portions of the ditch were saturated at the time of the wetland delineation, and portions contained as much as an inch of standing water. Considering the typical regional precipitation patterns (discussed for hydrology for Wetland A in Section 3.1), it is reasonable scientific judgment to assume that the ditch possesses wetland hydrology.

Classification: Wetland E meets the criteria for federal regulation as a water of the United States (as defined in 33 CFR 328) and the criteria for Florida regulation as a surface water (as defined in Section 62-340.600 F.A.C.). Waters of the United States and Florida surface waters are regulated in a manner generally similar to wetlands even though they lack the persistent vegetation typical of wetlands. Wetland E would be classified as Riverine Intermittent (R4). The Riverine system is described by the FWS as consisting of wetlands and deepwater habitats contained within a channel, except for wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens and for habitats with water containing ocean-derived salts in excess of 0.5 parts per thousand (Cowardin et al., 1979). Although the most applicable of the FWS classifications, Wetland E is a man-made drainage ditch that lacks many of the characteristics of natural intermittent streams.

Functions and Values: Because Wetland E is a man-made drainage ditch rather than a natural wetland, it does not display most of the functions and values typical of natural wetlands. As is true for the other Site 15 wetlands, groundwater recharge and discharge are not key issues in northern Florida, which has abundant precipitation and extensive areas of surface water. Flooding, which can be reduced by the presence of wetlands, is likewise not a key issue in inland areas of northern Florida, considering the nearly level topography and substantial distance from the coast.

The upland vegetation on the embankments to Wetland E could play a role in stabilizing the embankments and reducing sedimentation entering the ditch and hence the natural streams ultimately receiving flow from the ditch. The same is true for areas within the ditch that contain vegetation. However, the presence of the ditch as opposed to natural uplands can not be credited with playing a significant regional role with respect to sediment and shoreline stabilization.

Wetland E lacks dense vegetation, and thus it could lack the capability to effectively retain sediments and toxicants or to provide substantial production export. Other surface water features are abundant in the area, hence Wetland E does not likely serve as an important drinking water source for terrestrial wildlife.

Wetland E could provide habitat for some aquatic organisms (primarily benthos or small fish), but its narrow width and artificial character likely render it insignificant as aquatic habitat. Although most wetlands on Site 15 could be of substantial importance with respect to each of the wetland values noted in Table 2-4, Wetland E's status as a man-made drainage ditch could render its contribution insignificant.

Wetland E scored 0.64 (out of a possible 1.00) using WRAP (Appendix B). This score suggests a wetland of mediocre ecological and human value. The lower score relative to that for Wetlands A, C, and D primarily reflect the status of the wetland as an artificial drainage ditch.

3.6 WETLAND F

Wetland F consists of land at the bottom of a small man-made excavation pit measuring less than 0.1 acre situated in the southwestern part of Site 15 (Figure 3-3, Photo 14). The pit is surrounded by uplands that have been recently clearcut. The pit lacks a surface connection with other wetlands or bodies of water. The wetlands contained within the pit are therefore isolated wetlands and hence are not subject to Federal jurisdiction under Section 404 of the Clean Water Act. The pit lies entirely within Site 15 and thus its entire boundary was delineated.

Vegetation: Vegetation within lands at the bottom of the pit is variable but consists of species typical of wetlands such as willow (*Salix* sp.) and beakrushes (*Rhynchospora* sp.) (Appendix A, Data Point 15F-1-1). All willow species are designated by Florida as OBL, and most beakrush species are designated by Florida as OBL or FACW.

Soils: Soils were not a consideration in the delineation of Wetland F, which consists of the bottom of a small, sharply defined man-made excavation pit. Because saturated and inundated conditions were observed in the bottom of the pit during the growing season, it is reasonable scientific judgment to assume that the soils in the bottom of the pit meet one of the following two technical criteria for hydric soil established by the NRCS:

- Soils that are frequently ponded for long duration or very long duration during the growing season,

or

- Soils that are frequently flooded for long duration or very long duration during the growing season.

The NRCS further defines "frequently" with respect to ponding or flooding as an event likely to occur often under usual weather conditions (more than 50 percent chance in any year, or more than 50 times in 100 years).

Hydrology: Portions of the bottom of the pit were saturated at the time of the wetland delineation, and portions contained as much as an inch of standing water. Considering the typical regional precipitation

patterns (discussed for hydrology for Wetland A in Section 3.1), it is reasonable scientific judgment to assume that the bottom of the pit possesses wetland hydrology.

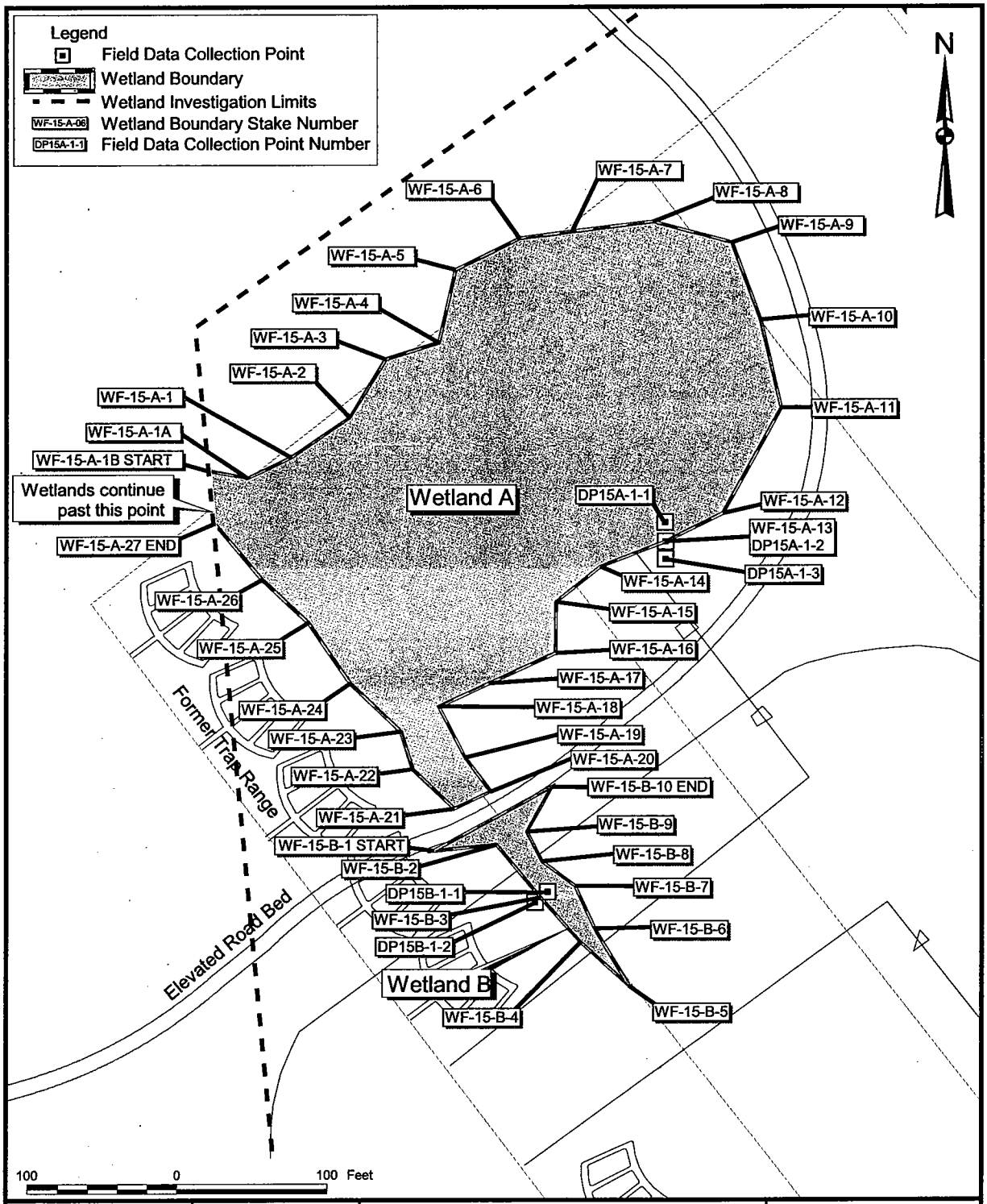
Classification: Wetland F meets both the federal and Florida criteria for a wetland. However, unlike the other wetlands on Site 15, Wetland F lacks a surface connection to tributaries to navigable waters of the United States. It therefore is not subject to federal regulation under Section 404 of the Clean Water Act even though it meets the definition of a wetland. Wetland F is still regulated by Florida, whose regulations do not exclude regulation of isolated wetlands.

Wetland F would be classified as Palustrine Emergent (PFO). The Palustrine system is described by the FWS as consisting of nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens (as well as tidal wetlands whose salinity is less than 0.5 parts per thousand) (Cowardin et al., 1979).

Functions and Values: Because Wetland F is a small man-made excavation pit rather than a natural wetland, it does not display most of the functions and values typical of natural wetlands. As is true for the other Site 15 wetlands, groundwater recharge and discharge are not key issues in northern Florida, which has abundant precipitation and extensive areas of surface water. Flooding, which can be reduced by the presence of wetlands, is likewise not a key issue in inland areas of northern Florida, considering the nearly level topography and substantial distance from the coast. The pit does not contain or adjoin open water, thus it does not play a in sediment and shoreline stabilization. Because of the small size of the pit, it does not likely contribute substantially to detaining surface runoff and hence does not likely play a significant role with respect to sediment/toxicant retention or nutrient removal/transformation. Because the pit is hydrologically isolated from other wetlands and surface water features, it may not substantially contribute to production export.

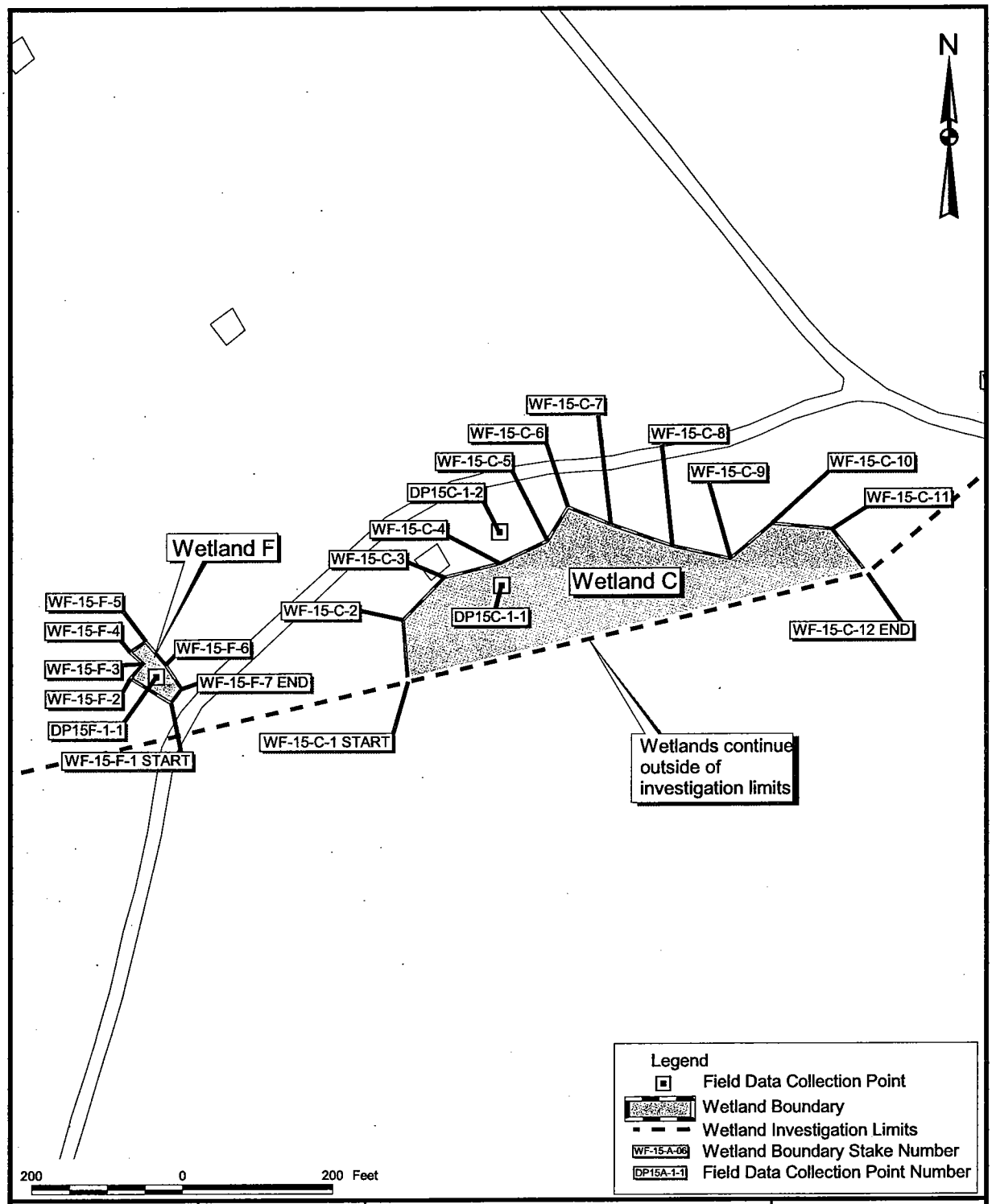
Other surface water features are abundant in the area, hence Wetland F does not likely serve as an important drinking water source for terrestrial wildlife. Wetland F does not contain permanent standing water and therefore does not provide aquatic habitat. Although most wetlands on Site 15 could be of substantial importance with respect to each of the wetland values considered, Wetland F's status as a man-made excavation pit could render its contribution insignificant.

Wetland F scored 0.58 (out of a possible 1.00) using WRAP (Appendix B). This score suggests a wetland of mediocre ecological and human value. The lower score relative to that for Wetlands A, C, and D primarily reflect the status of the wetland as a small man-made excavation pit.



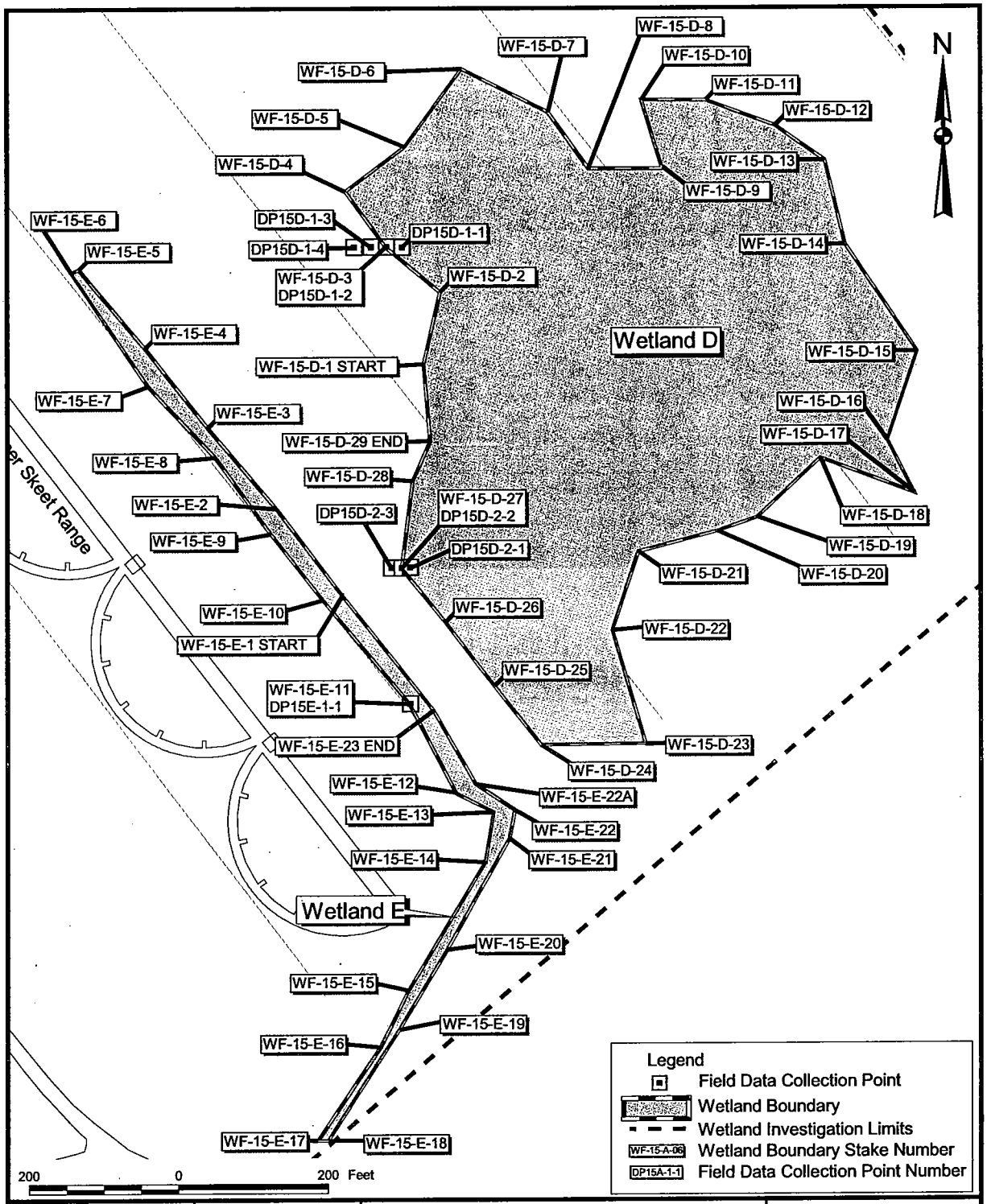
DRAWN BY MJJ	DATE 04Dec03	WETLAND DELINEATION MAP NORTHERN PART OF SITE 15 OU 5, SITE 15 WETLAND DELINEATION REPORT NAS CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 7653
CHECKED BY	DATE		APPROVED BY DATE
COST/SCHEDULE-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 3-1 REV 0

P:\GIS\Cecil\Site-15_Wwetlands.apr 16Dec03 MJJ 02-Layout



DRAWN BY MJJ	DATE 04Dec03	WETLAND DELINEATION MAP SOUTHERN PART OF SITE 15 OU 5, SITE 15 WETLAND DELINEATION REPORT NAS CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 7653
CHECKED BY	DATE		APPROVED BY DATE
COST/SCHEDULE-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 3-2 REV 0

P:\GIS\Cecil\Site-15_Wwetlands.apr 16Dec03 MJJ 04-Layout



DRAWN BY MJJ	DATE 04Dec03	WETLAND DELINEATION MAP SOUTHEASTERN PART OF SITE 15 OU 5, SITE 15 WETLAND DELINEATION REPORT NAS CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 7653
CHECKED BY	DATE		APPROVED BY DATE
COST/SCHEDULE-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 3-3 / REV 0

P:\GIS\Cecil\Site-15_Wwetlands.apr 16Dec03 MJJ 03-Layout

4.0 SUMMARY

Six areas on NAS Cecil Field IR Program Site 15 meet the Federal technical criteria recognized by the U.S. EPA and COE for delineation as wetlands. These areas are designated as Wetlands A, B, C, D, E, and F and are depicted in Figures 3-1, 3-2, and 3-3. All are non-tidal, freshwater wetlands. Wetlands A, C, D, and E possess surface connections to tributaries that ultimately discharge into navigable waters of the United States and thus are "adjacent" wetlands subject to regulation under Section 404 of the Clean Water Act. Wetland B is separated from Wetland A and its connection to navigable waters by a narrow road bed and thus would likely to be regarded by U.S. EPA and COE as an "adjacent" wetland subject to Section 404 jurisdiction. Wetland F is contained within a small excavated pit situated more than 50 feet from the nearest wetland or other surface water. The U.S. EPA and COE would therefore regard Wetland F as an "isolated" wetland not under Section 404 jurisdiction.

All of the wetlands delineated on Site 15 meet the delineation of wetlands used by the FDEP and St. Johns River Water Management District under Chapter 62-340 of the Florida Administrative Code (F.A.C.). Although the wetland delineation methodology recognized by FDEP and St. Johns River Water Management District differs from that recognized by the U.S. EPA and COE, the different methodologies result in a substantially similar sequence of wetland boundaries on Site 15. In contrast to Section 404, the Florida statutes for wetland protection do not distinguish between "adjacent" and "isolated" wetlands. Therefore, impacts to Wetland F as well as impacts to Wetlands A, B, C, D, and E are subject to Florida jurisdiction.

The three largest wetlands delineated on Site 15 (Wetlands A, C, and D) appear to be wetlands of natural origin. All appear to provide good habitat for terrestrial wildlife and could play substantial roles in exporting nutrients and prey sources (production export) to down-gradient aquatic habitats in tributaries to Yellow Water Creek. All could be of substantial value as natural features of aesthetic and scientific value should Site 15 and surrounding lands ever be opened to the public. Efforts to minimize disturbance of these three wetland features during the remediation of Site 15 are recommended, as are efforts to restore in place (*in situ*) any areas that must be disturbed to satisfactorily accomplish the remedial action objectives.

The three smaller wetlands (Wetlands B, E, and F) appear to be of man-made origin and are clearly of lower significance with respect to wetland values and functions than are Wetlands A, C, and D. Wetland B appears to be the result of ponded water resulting from a man-made road bed. Wetland E appears to be a man-made drainage ditch, and Wetland F is a man-made excavation pit. Although these smaller, man-made wetlands are still subject to federal and/or state regulation, extraordinary efforts to minimize their disturbance or to restore the wetlands *in situ* are not recommended.

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APPENDIX A

WETLAND DELINEATION DATA SHEETS

DATA POINT 15A-1-1
10 FEET WETLAND (NORTH) OF STAKE "WET 15-A-13"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/02/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:	[redacted]	No	Community ID:	WET PINE FLATWOODS (FLUCFCS CODE 620)
Is the site significantly disturbed (Atypical Situation)?:	Yes	[redacted]	Transect ID:	A-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes	[redacted]	Plot ID:	1

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (40)	UPL/FACW	MYRICA CERIFERA	S (1)	FAC/FAC
ACER RUBRUM	S (7)	FACW/FAC	MYRICA CERIFERA	H (1)	FAC/FAC
PINUS ELLIOTTII	S (5)	UPL/FACW			
MAGNOLIA VIRGINIANA	S (5)	OBL/FACW			
SERENOA REPENS	S (5)	UPL/UPL			
ILEX GLABRA	H (20)	UPL/FACW			
OSMUNDA CINNAMOMEA	H (20)	FACW/FACW			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 100 (BASED ON CANOPY) FWS: 100 (ALL STRATA)

Remarks: HYDROPHYTIC VEGETATION. HERBACEOUS GROUNDCOVER USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE AND SUBCANOPY IS STRONGLY INFLUENCED BY PLANTED PINE. ALSO MEETS EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION.

HYDROLOGY

____ Recorded Data (Described in Remarks):	Wetland Hydrology Indicators:
____ Stream, Lake, or Tide Gauge	Primary Indicators:
____ Aerial Photographs	____ Inundated
____ Other	X Saturated in Upper 12 inches
X No Recorded Data Available	____ Water Marks
	____ Drift Lines
Field Observations:	____ Sediment Deposits
Depth of Surface Water: NONE (in.)	____ Drainage Patterns in Wetlands
Depth to Free Water in Pit: 6 (in.)	Secondary Indicators (2 or more required):
Depth to Saturated Soil: SURFACE (in.)	____ Oxidized Root Channels in Upper 12 inches
	X Water-Stained Leaves
	X Local Soil Survey Data
	X FAC-Neutral Test
	____ Other (Explain in Remarks)

Remarks: WETLAND HYDROLOGY. IN ADDITION TO THE INDICATORS CHECKED ABOVE, SOIL SURFACE DISPLAYED DISTINCT VEGETATIVE HUMMOCKS. THE FOLLOWING HYDROLOGICAL INDICATORS FROM 62-340.500 F.A.C. WERE OBSERVED: (8) HYDROLOGICAL DATA (DIRECT OBSERVATION OF SURFACE SATURATION DURING GROWING SEASON) AND (12) VEGETATED TUSSOCKS OR HUMMOCKS.

DATA POINT 15A-1-1
10 FEET WETLAND (NORTH) OF STAKE "WET 15-A-13"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	OLUSTEE FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – ULTIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes **No**

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-3	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
3-18+	A2 OR B2h	2.5Y 5/1	2.5Y 4/1	50:50	MUCKY FINE SAND
				POLYCHROMATIC	
				MATRIX	

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: HYDRIC SOIL. FDEP HYDRIC SOIL FIELD INDICATOR S7 "DARK SURFACE".

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	Yes	**No**	Is this Sampling Point Within a Wetland?	**Yes**	No
Wetland Hydrology Present?	**Yes**	No			
Hydric Soils Present?	**Yes**	No			

Remarks: THIS AREA IS A FLORIDA WETLAND BASED ON THE "D" TEST, 62-340.300(2)(d), WHICH IS BASED ON THE PRESENCE OF A HYDRIC SOIL AND A HYDROLOGIC INDICATOR.

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987).

FLORIDA CLASSIFICATION: WETLAND (FLUCFCS CODE 624)
USFWS CLASSIFICATION: PALUSTRINE FORESTED WETLAND, NEEDLE-LEAVED EVERGREEN (PFO4).

DATA POINT 15A-1-2
AT STAKE "WET 15-A-13"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/02/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA
Do Normal Circumstances exist on the site?:	[redacted] No	Community ID:	ECOTONE (FLUCFCS CODES 624-441)
Is the site significantly disturbed (Atypical Situation)?:	Yes [redacted]	Transect ID:	A-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes [redacted]	Plot ID:	2

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (60)	UPL/FACW	ACER RUBRUM	C (5)	FACW/FAC
ACER RUBRUM	S (10)	FACW/FAC	NYSSA SYLVATICA	C (5)	UPL/FAC
SERENOA REPENS	S (15)	UPL/UPL	QUERCUS NIGRA	S (<1)	FACW/FAC
ILEX GLABRA	H (30)	UPL/FACW	OSMUNDA CINNAMOMEA	H (5)	FACW/FACW

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 40 (BASED ON SUBCANOPY) FWS: 100 (ALL STRATA)

Remarks: ON TRANSITION FROM AN AREA THAT MEETS FLORIDA DEFINITION OF HYDROPHYIC VEGETATION AND AN AREA THAT DOES NOT. SUBCANOPY USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE. VEGETATON ON BOTH SIDES OF THIS POINT MEETS THE FEDERAL CRITERIA FOR HYDROPHYTIC VEGETATION.

HYDROLOGY

____ Recorded Data (Described in Remarks):	Wetland Hydrology Indicators:
____ Stream, Lake, or Tide Gauge	Primary Indicators:
____ Aerial Photographs	____ Inundated
____ Other	____ Saturated in Upper 12 inches
X No Recorded Data Available	____ Water Marks
	____ Drift Lines
Field Observations:	____ Sediment Deposits
Depth of Surface Water: NONE (in.)	____ Drainage Patterns in Wetlands
Depth to Free Water in Pit: 15 (in.)	Secondary Indicators (2 or more required):
Depth to Saturated Soil: 10 (in.)	____ Oxidized Root Channels in Upper 12 inches
	____ Water-Stained Leaves
	X Local Soil Survey Data
	X FAC-Neutral Test
	____ Other (Explain in Remarks)

Remarks: POINT LIES ON A TRANSITION FROM WETLAND HYDROLOGY TO NON-WETLAND (UPLAND) HYDROLOGY. VEGETATED HUMMOCKS OBSERVED ONLY DOWNGRADIENT (WET SIDE) OF THIS POINT.

DATA POINT 15A-1-2
AT STAKE "WET 15-D-13"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	OLUSTEE FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – ULTIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-3	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
3-18+	A2 OR B2h	2.5Y 5/1	2.5Y 3/1 STREAKS	50:50 POLYCHROMATIC MATRIX	MUCKY FINE SAND

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soil
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- X Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: POINT ON TRANSITION FROM HYDRIC TO NON-HYDRIC SOILS.

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	[redacted]	No	Is this Sampling Point Within a Wetland?	[redacted]	No
Wetland Hydrology Present?	[redacted]	No			
Hydric Soils Present?	[redacted]	No			

Remarks: THIS AREA IS TRANSITIONAL FROM A FLORIDA WETLAND TO A NON-WETLAND.

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987). HOWEVER, IT IS IN TRANSITION TO A NON WETLAND.

FLORIDA CLASSIFICATION: ECOTONE BETWEEN FLUCFCS CODES 624 AND 441
USFWS CLASSIFICATION: ECOTONE BETWEEN PALUSTRINE FORESTED WETLAND, NEEDLE-LEAVED EVERGREEN (PFO4) WETLAND AND UPLAND (U).

DATA POINT 15A-1-3
10 FEET UPLAND (SOUTH) OF STAKE "WET 15-A-13"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:	[redacted]	No	Community ID:	PINE PLANTATION (FLUCFCS CODE 441)
Is the site significantly disturbed (Atypical Situation)?:	Yes	[redacted]	Transect ID:	A-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes	[redacted]	Plot ID:	3

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (60)	UPL/FACW	NYSSA SYLVATICA	C (5)	FAC/FAC
SERENOA REPENS	S (50)	UPL/UPL	ACER RUBRUM	C (5)	FACW/FAC
ILEX GLABRA	H (25)	UPL/FACW	NYSSA SYLVATICA	S (5)	FAC/FAC
			MYRICA CERIFERA	H (5)	FAC/FAC

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 0 (BASED ON SUBCANOPY) FWS: 67 (ALL STRATA)

Remarks: DOES NOT MEET FLORIDA DEFINITION OF HYDROPHYTIC VEGETATION. DOES MEET EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION. SUBCANOPY USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	15	(in.)
Depth to Saturated Soil:	10	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12 inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- ____ Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: NOT WETLAND HYDROLOGY. NONE OF THE HYDROLOGICAL INDICATORS FROM 62-340.500 F.A.C. WERE OBSERVED. EVIDENCE OF WETLAND HYDROLOGY PER FEDERAL CRITERIA IS VERY WEAK.

DATA POINT 15A-1-3
10 FEET UPLAND (SOUTH) OF STAKE "WET 15-A-13"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	OLUSTEE FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – ULTIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-3	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
3-18+	A2 OR B2h	2.5Y 2.5/1	2.5Y 5/1 STREAKS	50:50 POLYCHROMATIC MATRIX	FINE SAND

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soil
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- X Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: POINT ON TRANSITION FROM HYDRIC TO NON-HYDRIC SOILS. DARK SURFACE HORIZON LESS PRONOUNCED THAN IN THE WETLANDS.

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	Yes	No	Is this Sampling Point Within a Wetland?	Yes	No
Wetland Hydrology Present?	Yes	No			
Hydric Soils Present?	Yes	No			

Remarks: THIS AREA DOES NOT MEET ANY OF THE CRITERIA FOR A FLORIDA WETLAND IN 62-340.300(2) F.A.C. ALTHOUGH THE AREA DISPLAYS MARGINAL EVIDENCE OF EACH OF THE THREE FEDERAL WETLAND PARAMETERS (ENVIRONMENTAL LABORATORY, 1987), REASONABLE SCIENTIFIC JUDGEMENT SUGGESTS THAT THE AREA FUNCTIONS MORE LIKE AN UPLAND THAN A WETLAND.

FLORIDA CLASSIFICATION: FLUCFCS CODE 441 (PINE PLANTATION)
USFWS CLASSIFICATION: UPLAND (U).

DATA POINT 15B-1-1
10 FEET WETLAND (NORTH) OF STAKE "WET 15-B-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/02/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:		No	Community ID:	WET SWALE IN PINE PLANT. (FLUCFCS 441)
Is the site significantly disturbed (Atypical Situation)?:	Yes		Transect ID:	B-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes		Plot ID:	1

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (5)	UPL/FACW	RHYNCHOSPORA ODORATA (?)	H (5)	FACW/OBL
ACER RUBRUM	S (10)	FACW/FAC	ACER RUBRUM	H (5)	FACW/FAC
IRIS SP.	H (25)	OBL/FACW	GALEUM TINCTORIUM (?)	H (5)	FACW/FACW
RHYNCHOSPORA TRACYI (?)	H (10)	OBL/OBL	HYPOXIS SP.	H (5)	FACW/FAC
			LYCOPUS SP.	H (5)	OBL/OBL
			DICHONDRA CAROLINENSIS	H (5)	FAC/FACW
			LINUM SP.	H (5)	FAC/FAC

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 100 (BASED ON SUBCANOPY) FWS: 100 (ALL STRATA)

Remarks: HYDROPHYTIC VEGETATION. SUBCANOPY IS USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE. ALSO MEETS EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION.

HYDROLOGY

____ Recorded Data (Described in Remarks):	Wetland Hydrology Indicators:
____ Stream, Lake, or Tide Gauge	Primary Indicators:
____ Aerial Photographs	____ Inundated
____ Other	X Saturated in Upper 12 inches
X No Recorded Data Available	X Water Marks (1-2" ABOVE GROUND SURFACE)
	____ Drift Lines
Field Observations:	____ Sediment Deposits
Depth of Surface Water: NONE (in.)	____ Drainage Patterns in Wetlands
Depth to Free Water in Pit: NONE TO 20"+ (in.)	Secondary Indicators (2 or more required):
Depth to Saturated Soil: SURFACE (in.)	____ Oxidized Root Channels in Upper 12 inches
	X Water-Stained Leaves
	X Local Soil Survey Data
	X FAC-Neutral Test
	____ Other (Explain in Remarks)

Remarks: WETLAND HYDROLOGY. SURFACE WATER APPEARS TO BE PERCHED, PERHAPS RUNOFF THAT COLLECTS IN SWALE BUT CAN NOT PASS UNDER ROADWAY (NO CULVERT OBSERVED). THE FOLLOWING HYDROLOGICAL INDICATORS FROM 62-340.500 F.A.C. WERE OBSERVED: (8) HYDROLOGICAL DATA (DIRECT OBSERVATION OF SURFACE SATURATION DURING GROWING SEASON) AND (13) WATER MARKS.

DATA POINT 15B-1-1
10 FEET WETLAND (NORTH) OF STAKE "WET 15-B-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – ULTIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-3	A1	2.5Y 3/1	NONE	N/A	MUCKY FINE SAND
3-18+	A2 OR B2h	2.5Y 4/2	NONE	N/A	FINE SAND

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
X	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: APPEARS TO BE A HYDRIC SOIL ONLY BECAUSE OF THE EVIDENT PONDING OF SURFACE WATER. PONDING LIKELY CAUSED BY FACT THAT ADJOINING ROADWAY WAS CONSTRUCTED ACROSS THIS SWALE WITHOUT A CULVERT OR OTHER FEATURE ALLOWING THE DOWN-GRADIENT FLOW OF SURFACE WATER.

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	[redacted]	No	Is this Sampling Point Within a Wetland?	[redacted]	No
Wetland Hydrology Present?	[redacted]	No			
Hydric Soils Present?	[redacted]	No			

Remarks: THIS AREA IS A FLORIDA WETLAND BASED ON THE "B" TEST, 62-340.300(2)(d), WHICH IS BASED ON THE PRESENCE OF 80% OF PLANT COVER IN APPROPRIATE STRATUM (IN THIS CASE, THE SUBCANOPY) CONSISTING OF OBL AND FACW SPECIES VS. LESS THAN 20% OF THE PLANT COVER CONSISTING OF UPL SPECIES.

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987).

FLORIDA CLASSIFICATION: WETLAND (FLUCFCS CODE 441)
USFWS CLASSIFICATION: PALUSTRINE FORESTED WETLAND, NEEDLE-LEAVED EVERGREEN (PFO4).

DATA POINT 15B-1-2
10 FEET UPLAND (SOUTH) OF STAKE "WET 15-B-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA
Do Normal Circumstances exist on the site?:	Yes [redacted] No	Community ID:	PINE PLANTATION (FLUCFCS CODE 441)
Is the site significantly disturbed (Atypical Situation)?:	Yes [redacted]	Transect ID:	B-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes [redacted]	Plot ID:	2

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (60)	UPL/FACW			
MYRICA CERIFERA	S (10)	FAC/FAC			
ACER RUBRUM	S (5)	FACW/FAC			
PTERIDIUM AQUILINUM	H (5)	UPL/UPL			
QUERCUS NIGRA	H (5)	FACW/FAC			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 100 (BASED ON SUBCANOPY) FWS: 80 (ALL STRATA)

Remarks: ALTHOUGH TECHNICALLY MEETING BOTH THE FLORIDA AND FEDERAL CRITERIA FOR HYDROPHYTIC VEGETATION, THIS AREA OF PLANTED PINES WITH SPARSE UNDERSTORY APPEARS TO FUNCTION MORE AS UPLAND.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	24	(in.)
Depth to Saturated Soil:	18	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12 inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- ____ Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: NOT WETLAND HYDROLOGY. NONE OF THE HYDROLOGICAL INDICATORS FROM 62-340.500 F.A.C. WERE OBSERVED. EVIDENCE OF WETLAND HYDROLOGY PER FEDERAL CRITERIA IS VERY WEAK.

DATA POINT 15B-1-3
10 FEET UPLAND (SOUTH) OF STAKE "WET 15-B-2"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes **No**

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-10	A	2.5Y 5/1	NONE	N/A	FINE SAND
10-15	B	10YR 4/3	NONE	N/A	FINE SANDY LOAM
15-20	B	10YR 4/4	NONE	N/A	FINE SANDY LOAM
20-30	B	10YR 4/3	10YR 4/1	50:50 POLYCHROMATIC MATRIX	FINE SANDY LOAM

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: NON-HYDRIC SOILS.

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	**Yes**	No	Is this Sampling Point Within a Wetland?	Yes	**No**
Wetland Hydrology Present?	Yes	**No**			
Hydric Soils Present?	Yes	**No**			

Remarks: THIS AREA DOES NOT MEET ANY OF THE CRITERIA FOR A FLORIDA WETLAND IN 62-340.300(2) F.A.C. AND DOES NOT MEET THE FEDERAL SOILS OR HYDROLOGY CRITERIA (ENVIRONMENTAL LABORATORY, 1987).

FLORIDA CLASSIFICATION: FLUCFCS CODE 441 (PINE PLANTATION)
USFWS CLASSIFICATION: UPLAND (U).

DATA POINT 15C-1-1
10 FEET WETLAND (SOUTH) OF STAKE "WET 15-C-4"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/02/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:	[redacted]	No	Community ID:	WET PINE FLATWOODS (FLUCFCS CODE 620)
Is the site significantly disturbed (Atypical Situation)?:	Yes	[redacted]	Transect ID:	C-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes	[redacted]	Plot ID:	1

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (20)	UPL/FACW	ILEX GLABRA	S (<1)	UPL/FACW
NYSSA SYLVATICA	C (20)	OBL/OBL	MYRICA CERIFERA	S (<1)	FAC/FAC
PINUS ELLIOTTII	S (5)	UPL/FACW	OSMUNDA CINNAMOMEA	H (20)	FACW/FACW
QUERCUS NIGRA	S (5)	FACW/FAC			
NYSSA SYLVATICA	S (5)	OBL/OBL			
WOODWARDIA AREOLATA	H (30)	OBL/OBL			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

FLORIDA: 100 (BASED ON GROUNDCOVER) FWS: 100 (ALL STRATA)

Remarks: HYDROPHYTIC VEGETATION. HERBACEOUS GROUNDCOVER USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE AND SUBCANOPY IS SPARSE AND STRONGLY INFLUENCED BY PLANTED PINE. ALSO MEETS EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	3	(in.)
Depth to Saturated Soil:	SURFACE	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- X Saturated in Upper 12 inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- ____ Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: WETLAND HYDROLOGY. IN ADDITION TO THE INDICATORS CHECKED ABOVE, SOIL SURFACE DISPLAYED SLIGHT VEGETATIVE HUMMOCKS. THE FOLLOWING HYDROLOGICAL INDICATORS FROM 62-340.500 F.A.C. WERE OBSERVED: (8) HYDROLOGICAL DATA (DIRECT OBSERVATION OF SURFACE SATURATION DURING GROWING SEASON) AND (12) VEGETATED TUSSOCKS OR HUMMOCKS.

DATA POINT 15C-1-1
10 FEET WETLAND (SOUTH) OF STAKE "WET 15-C-4"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	OLUSTEE FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – ULTIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-3	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
3-18+	A2 OR B2h	2.5Y 2.5/1	2.5Y 5/1	70:30	MUCKY FINE SAND
				POLYCHROMATIC	
				MATRIX	

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	X	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: HYDRIC SOIL. FDEP HYDRIC SOIL FIELD INDICATOR S7 "DARK SURFACE" AND S6 "STRIPPED MATRIX".

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	Yes	[redacted]	Is this Sampling Point Within a Wetland?	[redacted]	No
Wetland Hydrology Present?	[redacted]	No			
Hydric Soils Present?	[redacted]	No			

Remarks: THIS AREA IS A FLORIDA WETLAND BASED ON THE "A" TEST, 62-340.300(2)(a), WHICH IS BASED ON THE PREVALENCE OF OBLIGATE VEGETATION OVER UPLAND VEGETATION AND ALSO THE PRESENCE OF FIELD INDICATORS HYDRIC SOILS AND/OR WETLAND HYDROLOGY; AS WELL AS MEETING THE "D" TEST, 62-340.300(2)(d), WHICH IS BASED ON THE PRESENCE OF FIELD INDICATORS OF HYDRIC SOIL AND WETLAND HYDROLOGY.

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987).

FLORIDA CLASSIFICATION: WETLAND (FLUCFCS CODE 620)
USFWS CLASSIFICATION: PALUSTRINE FORESTED WETLAND, NEEDLE-LEAVED EVERGREEN (PFO4).

DATA POINT 15C-1-2
10 FEET UPLAND (NORTH) OF STAKE "WET 15-C-4"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:	[redacted]	No	Community ID:	CLEARCUT PINE PLANT. (FLUCFCS CODE 441)
Is the site significantly disturbed (Atypical Situation)?:	Yes	[redacted]	Transect ID:	C-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes	[redacted]	Plot ID:	2

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
ACER RUBRUM	S (5)	FACW/FAC	PINUS ELLIOTTII	H (<1)	UPL/FACW
MYRICA CERIFERA	S (5)	FAC/FAC	MYRICA CERIFERA	H (5)	FAC/FAC
QUERCUS NIGRA	S (5)	FACW/FAC			
RUBUS SP.	H (25)	FAC/VAR			
ILEX GLABRA	H (25)	UPL/FACW			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 100 (BASED ON SUBCANOPY) FWS: 80 (ALL STRATA)

Remarks: MEETS FLORIDA AND EPA/COE DEFINITIONS OF HYDROPHYTIC VEGETATION. IT IS NOTED, HOWEVER, THAT NO OBL SPECIES ARE PRESENT AND ALL OF THE DOMINANT SPECIES COMMONLY OCCUR IN MESIC UPLANDS AS WELL AS WETLANDS.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	20	(in.)
Depth to Saturated Soil:	15	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12 inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- ____ Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: NOT WETLAND HYDROLOGY. NONE OF THE HYDROLOGICAL INDICATORS FROM 62-340.500 F.A.C. WERE OBSERVED. EVIDENCE OF WETLAND HYDROLOGY PER FEDERAL CRITERIA IS VERY WEAK.

DATA POINT 15C-1-2
10 FEET UPLAND (NORTH) OF STAKE "WET 15-C-4"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	OLUSTEE FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – ULTIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes **No**

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-3	A1	2.5Y 4/1	NONE	N/A	FINE SAND
3-8	A2 OR B2h	2.5Y 3/2	NONE	N/A	FINE SAND
8-18+	A2 OR B2h	2.5Y 3/1	NONE	N/A	FINE SAND

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: NO FLORIDA OR FEDERAL FIELD INDICATORS OF HYDRIC SOIL.

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	**Yes**	No	Is this Sampling Point Within a Wetland?	Yes	**No**
Wetland Hydrology Present?	Yes	**No**			
Hydric Soils Present?	Yes	**No**			

Remarks: THIS AREA DOES NOT MEET ANY OF THE CRITERIA FOR A FLORIDA WETLAND IN 62-340.300(2) F.A.C. AND ONLY MEETS ONE OF THE THREE FEDERAL CRITERIA.

FLORIDA CLASSIFICATION: FLUCFCS CODE 441 (PINE PLANTATION)
USFWS CLASSIFICATION: UPLAND (U).

DATA POINT 15D-1-1
10 FEET WETLAND (EAST) OF STAKE "WET 15-D-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA
Do Normal Circumstances exist on the site?:	[redacted] No	Community ID:	CYPRESS (FLUCFCS CODE 621)
Is the site significantly disturbed (Atypical Situation)?:	Yes [redacted]	Transect ID:	D-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes [redacted]	Plot ID:	1

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (10)	UPL/FACW			
PINUS ELLIOTTII	S (5)	UPL/FACW			
ILEX GLABRA	H (5)	UPL/FACW			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 0 (BASED ON SUBCANOPY) FWS: 100 (ALL STRATA)

Remarks: HYDROPHYTIC VEGETATION. ALTHOUGH PINUS ELLIOTTII AND ILEX GLABRA ARE NOT FACW OR OBL PER FLORIDA REGULATION, REASONABLE SCIENTIFIC JUDGEMENT SUGGESTS THAT THE SPARSENESS OF THE VEGETATION AT THIS POINT IS DUE TO PERIOD SURFACE INUNDATION. THE VEGETATION CLEARLY MEETS THE EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION. THE PREDOMINANT CANOPY AND SUBCANOPY PINE OVER MOST OF THIS COMMUNITY IS POND CYPRESS (TAXODIUM ASCENDENS).

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	7	(in.)
Depth to Saturated Soil:	SURFACE	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- X Saturated in Upper 12 inches
- X Water Marks (1-2" ABOVE SURFACE)
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- X Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- X Other (Explain in Remarks)

Remarks: WETLAND HYDROLOGY. IN ADDITION TO THE ITEMS CHECKED ABOVE, SLIGHT EVIDENCE OF A DRIED ALGAL MAT WAS OBSERVED. THE FOLLOWING HYDROLOGICAL INDICATORS FROM 62-340.500 F.A.C. WERE OBSERVED: (1) ALGAL MATS, (8) HYDROLOGICAL DATA (DIRECT OBSERVATION OF SURFACE SATURATION DURING GROWING SEASON), AND (13) WATER MARKS.

DATA POINT 15D-1-1
10 FEET WETLAND (EAST) OF STAKE "WET 15-D-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-2	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
2-18+	A2 OR B2h	2.5Y 3/1	2.5Y 3/1 STREAKS	INDISTINCT	MUCKY FINE SAND

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: HYDRIC SOIL. FDEP HYDRIC SOIL FIELD INDICATOR S7 "DARK SURFACE".

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	Yes	[redacted]	Is this Sampling Point Within a Wetland?	[redacted]	No
Wetland Hydrology Present?	[redacted]	No			
Hydric Soils Present?	[redacted]	No			

Remarks: THIS AREA IS A FLORIDA WETLAND BASED ON THE "D" TEST, 62-340.300(2)(d), WHICH IS BASED ON THE PRESENCE OF A HYDRIC SOIL AND A HYDROLOGIC INDICATOR.

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987).

FLORIDA CLASSIFICATION: WETLAND (FLUCFCS CODE 621)
USFWS CLASSIFICATION: PALUSTRINE FORESTED WETLAND, NEEDLE-LEAVED EVERGREEN (PFO4).

DATA POINT 15D-1-2
AT STAKE "WET 15-D-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:	[redacted]	No	Community ID:	ECOTONE (FLUCFCS CODES 621-441)
Is the site significantly disturbed (Atypical Situation)?:	Yes	[redacted]	Transect ID:	D-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes	[redacted]	Plot ID:	2

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (20)	UPL/FACW	VIBURNUM OBOVATUM (?)	H (<1)	FACW/FACW
PINUS ELLIOTTII	S (5)	UPL/FACW	LICHENS	B (3)	NI
FORESTIERA ACUMINATA (?)	S (5)	FACW/OBL			
ILEX GLABRA	H (5)	UPL/FACW			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 50 (BASED ON SUBCANOPY) FWS: 100 (ALL STRATA)

Remarks: ON TRANSITION FROM AN AREA THAT MEETS FLORIDA DEFINITION OF HYDROPHYIC VEGETATION AND AN AREA THAT DOES NOT. SUBCANOPY USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE. VEGETATON ON BOTH SIDES OF THIS POINT MEETS THE FEDERAL CRITERIA FOR HYDROPHYTIC VEGETATION.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	10	(in.)
Depth to Saturated Soil:	SURFACE	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- X Saturated in Upper 12 inches
- X Water Marks (1-2" ABOVE SURFACE)
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- X Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- X Other (Explain in Remarks)

Remarks: POINT LIES ON A TRANSITION FROM WETLAND HYDROLOGY TO NON-WETLAND (UPLAND) HYDROLOGY. ALGAL MATS, WATERMARKS, AND WATER-STAINED LEAVES PERSIST ONLY DOWNGRADIENT OF THIS POINT.

DATA POINT 15D-1-2
AT STAKE "WET 15-D-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-2	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
2-18+	A2 OR B2h	2.5Y 7/1	2.5Y 4/1 STREAKS	50:50 POLYCHROMATIC MATRIX	MUCKY FINE SAND

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: POINT ON TRANSITION FROM HYDRIC TO NON-HYDRIC SOILS.

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	Yes	[redacted]	Is this Sampling Point Within a Wetland?	[redacted]	No
Wetland Hydrology Present?	[redacted]	No			
Hydric Soils Present?	[redacted]	No			

Remarks: THIS AREA IS TRANSITIONAL FROM A FLORIDA WETLAND BASED ON THE "D" TEST, 62-340.300(2)(d) TO A NON-WETLAND.

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987). HOWEVER, IT IS IN TRANSITION TO A NON WETLAND.

FLORIDA CLASSIFICATION: ECOTONE BETWEEN FLUCFCS CODES 621 AND 441
USFWS CLASSIFICATION: ECOTONE BETWEEN PALUSTRINE FORESTED WETLAND, NEEDLE-LEAVED EVERGREEN (PFO4) WETLAND AND UPLAND (U).

DATA POINT 15D-1-3
10 FEET UPLAND (WEST) OF STAKE "WET 15-D-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:	Yes	No	Community ID:	PINE PLANTATION (FLUCFCS CODE 441)
Is the site significantly disturbed (Atypical Situation)?:	Yes	No	Transect ID:	D-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes	No	Plot ID:	3

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (25)	UPL/FACW			
MYRICA CERIFERA	S (5)	FAC/FAC			
ILEX VOMITORIA	S (5)	FAC/FAC			
ILEX GLABRA	H (20)	UPL/FACW			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 0 (BASED ON SUBCANOPY) FWS: 100 (ALL STRATA)

Remarks: DOES NOT MEET FLORIDA DEFINITION OF HYDROPHYTIC VEGETATION. DOES MEET EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION. SUBCANOPY USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	14	(in.)
Depth to Saturated Soil:	11	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- X Saturated in Upper 12 inches
- X Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- ____ Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: NOT WETLAND HYDROLOGY. NONE OF THE HYDROLOGICAL INDICATORS FROM 62-340-500 F.A.C. WERE OBSERVED. EVIDENCE OF WETLAND HYDROLOGY PER FEDERAL CRITERIA IS VERY WEAK.

DATA POINT 15D-1-3
10 FEET UPLAND (WEST) OF STAKE "WET 15-D-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-2	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
2-18+	A2 OR B2h	2.5Y 6/1	2.5Y 4/1	50:50	MUCKY FINE SAND
				POLYCHROMATIC	
				MATRIX	

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: POINT ON TRANSITION FROM HYDRIC TO NON-HYDRIC SOILS. DARK SURFACE HORIZON LESS PRONOUNCED THAN IN THE WETLANDS.

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)
Hydrophytic Vegetation Present?	Yes	[redacted]	Is this Sampling Point Within a Wetland?	Yes [redacted]
Wetland Hydrology Present?	Yes	[redacted]		
Hydric Soils Present?	Yes	[redacted]		

Remarks: THIS AREA DOES NOT MEET ANY OF THE CRITERIA FOR A FLORIDA WETLAND IN 62-340.300(2) F.A.C. ALTHOUGH THE AREA DISPLAYS MARGINAL EVIDENCE OF EACH OF THE THREE FEDERAL WETLAND PARAMETERS (ENVIRONMENTAL LABORATORY, 1987), REASONABLE SCIENTIFIC JUDGEMENT SUGGESTS THAT THE AREA FUNCTIONS MORE LIKE AN UPLAND THAN A WETLAND.

FLORIDA CLASSIFICATION: FLUCFCS CODE 441 (PINE PLANTATION)
USFWS CLASSIFICATION: UPLAND (U).

DATA POINT 15D-1-4
20 FEET UPLAND (WEST) OF STAKE "WET 15-D-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA
Do Normal Circumstances exist on the site?:	[redacted] No	Community ID:	PINE PLANTATION (FLUCFCS CODE 441)
Is the site significantly disturbed (Atypical Situation)?:	Yes [redacted]	Transect ID:	D-1
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes [redacted]	Plot ID:	4

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (40)	UPL/FACW			
MYRICA CERIFERA	S (10)	FAC/FAC			
SERENOA REPENS	S (5)	UPL/UPL			
ILEX VOMITORIA	S (5)	FAC/FAC			
ILEX GLABRA	H (20)	UPL/FACW			
SERENOA REPENS	H (5)	UPL/UPL			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 0 (BASED ON SUBCANOPY) FWS: 67 (ALL STRATA)

Remarks: DOES NOT MEET FLORIDA DEFINITION OF HYDROPHYTIC VEGETATION. DOES MEET EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION. SUBCANOPY USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	18	(in.)
Depth to Saturated Soil:	12	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12 inches
- ____ Water Marks (1-2" ABOVE SURFACE)
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- ____ Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: NOT WETLAND HYDROLOGY. NONE OF THE HYDROLOGICAL INDICATORS FROM 62-340-500 F.A.C. WERE OBSERVED. EVIDENCE OF WETLAND HYDROLOGY PER FEDERAL CRITERIA IS VERY WEAK.

DATA POINT 15D-1-4
20 FEET UPLAND (WEST) OF STAKE "WET 15-D-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-2	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
2-18+	A2 OR B2h	2.5Y 3/1	2.5Y 5/2	50:50	MUCKY FINE SAND
				POLYCHROMATIC	
				MATRIX	

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: POINT ON TRANSITION FROM HYDRIC TO NON-HYDRIC SOILS. DARK SURFACE HORIZON LESS PRONOUNCED THAN IN THE WETLANDS.

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)
Hydrophytic Vegetation Present?	Yes	[redacted]	Is this Sampling Point Within a Wetland?	Yes [redacted]
Wetland Hydrology Present?	Yes	[redacted]		
Hydric Soils Present?	Yes	[redacted]		

Remarks: THIS AREA DOES NOT MEET ANY OF THE CRITERIA FOR A FLORIDA WETLAND IN 62-340.300(2) F.A.C. ALTHOUGH THE AREA DISPLAYS MARGINAL EVIDENCE OF EACH OF THE THREE FEDERAL WETLAND PARAMETERS (ENVIRONMENTAL LABORATORY, 1987), REASONABLE SCIENTIFIC JUDGEMENT SUGGESTS THAT THE AREA FUNCTIONS MORE LIKE AN UPLAND THAN A WETLAND.

FLORIDA CLASSIFICATION: FLUCFCS CODE 441 (PINE PLANTATION)
USFWS CLASSIFICATION: UPLAND (U).

DATA POINT 15D-2-1
10 FEET WETLAND (SOUTH) OF STAKE "WET 15-D-27"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA
Do Normal Circumstances exist on the site?:	[redacted] No	Community ID:	WET PINE FLATWOODS (FLUCFCS CODE 620)
Is the site significantly disturbed (Atypical Situation)?:	Yes [redacted]	Transect ID:	D-2
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes [redacted]	Plot ID:	1

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (30)	UPL/FACW	ACER RUBRUM	C (2)	FACW/FAC
TAXODIUM ASCENDENS	C (15)	OBL/OBL	TAXODIUM ASCENDENS	S (3)	OBL/OBL
DIOSPYROS VIRGINIANA	S (5)	FAC/FAC	QUERCUS NIGRA	S (2)	FACW/FAC
			PINUS ELLIOTTII	S (<1)	UPL/FACW
			MYRICA CERIFERA	S (<1)	FAC/FAC
			FORESTIERA ACUMINATA (?)	H (1)	FACW/OBL
			MYRICA CERIFERA	H (<1)	FAC/FAC

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 100 (BASED ON CANOPY) FWS: 100 (ALL STRATA)

Remarks: ALTHOUGH CANOPY DOMINATED BY PLANTED PINE, THE PARTIAL DOMINANCE BY UNPLANTED POND CYPRESS (TAXODIUM ASCENDENS, OBL) IS USED TO SUPPORT PRESENCE OF HYDROPHYTIC VEGETATION ACCORDING TO THE FLORIDA DEFINITION. ALSO MEETS EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	5	(in.)
Depth to Saturated Soil:	SURFACE	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- X Saturated in Upper 12 inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- X Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: WETLAND HYDROLOGY. IN ADDITION TO THE INDICATORS CHECKED ABOVE, POND CYPRESS TRUNKS DISPLAYED NOTICEABLE BUTTRESSING (A MORPHOLOGICAL PLANT ADAPTATION TO SATURATED CONDITIONS) AND SOIL SURFACE DISPLAYED DISTINCT VEGETATIVE HUMMOCKS. THE FOLLOWING HYDROLOGICAL INDICATORS FROM 62-340.500 F.A.C. WERE OBSERVED: (8) HYDROLOGICAL DATA (DIRECT OBSERVATION OF SURFACE SATURATION DURING GROWING SEASON), (9) MORPHOLOGICAL PLANT ADAPTATIONS, AND (12) VEGETATED TUSSOCKS OR HUMMOCKS.

DATA POINT 15D-2-1
10 FEET WETLAND (SOUTH) OF STAKE "WET 15-D-27"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-2	A1	1G 2.5/N	NONE	N/A	MUCKY FINE SAND
2-18+	A2 OR B2h	2.5Y 3/1	2.5Y 6/1 STREAKS	INDISTINCT MOTTLES	MUCKY FINE SAND

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: HYDRIC SOIL. FDEP HYDRIC SOIL FIELD INDICATOR S7 "DARK SURFACE".

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	[redacted]	No	Is this Sampling Point Within a Wetland?	[redacted]	No
Wetland Hydrology Present?	[redacted]	No			
Hydric Soils Present?	[redacted]	No			

Remarks: THIS AREA IS A FLORIDA WETLAND BASED ON THE "D" TEST, 62-340.300(2)(d), WHICH IS BASED ON THE PRESENCE OF A HYDRIC SOIL AND A HYDROLOGIC INDICATOR. ALSO QUALIFIES ON BASIS OF "A" TEST, 63-340.300(2)(a), WHICH IS BASED ON >50% DOMINANCE BY OBL SPECIES IN APPROPRIATE STRATUM, IF PLANTED PINE IS DISCOUNTED AND CANOPY CONSIDERED TO INCLUDE ONLY THE POND CYPRESS,

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987).

FLORIDA CLASSIFICATION: WETLAND (FLUCFCS CODE 624)
USFWS CLASSIFICATION: PALUSTRINE FORESTED WETLAND, NEEDLE-LEAVED EVERGREEN (PFO4).

DATA POINT 15D-2-2
AT STAKE "WET 15-D-27"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:	[redacted]	No	Community ID:	ECOTONE (FLUCFCS CODES 620-441)
Is the site significantly disturbed (Atypical Situation)?:	Yes	[redacted]	Transect ID:	D-2
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes	[redacted]	Plot ID:	2

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (30)	UPL/FACW	TAXODIUM ASCENDENS	C (5)	OBL/OBL
DIOSPYROS VIRGINIANA	S (10)	FAC/FAC	ACER RUBRUM	C (5)	FACW/FAC
ILEX GLABRA	H (5)	UPL/FACW	MYRICA CERIFERA	S (2)	FAC/FAC
PINUS ELLIOTTII	H (5)	UPL/FACW	ILEX VOMITORIA	S (2)	FAC/FAC
ILEX VOMITORIA	H (5)	FAC/FAC	SERENOA REPENS	S (2)	UPL/UPL
			ACER RUBRUM	S (2)	FACW/FAC
			MYRICA CERIFERA	H (1)	FAC/FAC

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 50 (BASED ON SUBCANOPY) FWS: 100 (ALL STRATA)

Remarks: ON TRANSITION FROM AN AREA THAT MEETS FLORIDA DEFINITION OF HYDROPHYIC VEGETATION AND AN AREA THAT DOES NOT. SUBCANOPY USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE. VEGETATON ON BOTH SIDES OF THIS POINT MEETS THE FEDERAL CRITERIA FOR HYDROPHYTIC VEGETATION.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	12	(in.)
Depth to Saturated Soil:	6	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- X Saturated in Upper 12 inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- ____ Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: THIS POINT LIES ON A TRANSITION FROM WETLAND HYDROLOGY TO NON-WETLAND (UPLAND) HYDROLOGY. WATER-STAINED LEAVES, VEGETATED HUMMOCKS, AND MORPHOLOGICAL PLANT ADAPTATIONS OCCUR ONLY DOWN-GRADIENT OF THIS POINT.

DATA POINT 15D-2-2
AT STAKE "WET 15-D-27"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-2	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
2-18+	A2 OR B2h	2.5Y 2.5/1	2.5Y 6/1 STREAKS	5%, INDISTINCT	MUCKY FINE SAND

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: POINT ON TRANSITION FROM HYDRIC TO NON-HYDRIC SOILS.

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	[redacted]	No	Is this Sampling Point Within a Wetland?	[redacted]	No
Wetland Hydrology Present?	[redacted]	No			
Hydric Soils Present?	[redacted]	No			

Remarks: THIS AREA IS TRANSITIONAL FROM A FLORIDA WETLAND TO A NON-WETLAND.

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987). HOWEVER, IT IS IN TRANSITION TO A NON WETLAND.

FLORIDA CLASSIFICATION: ECOTONE BETWEEN FLUCFCS CODES 624 AND 441
USFWS CLASSIFICATION: ECOTONE BETWEEN PALUSTRINE FORESTED WETLAND, NEEDLE-LEAVED EVERGREEN (PFO4) WETLAND AND UPLAND (U).

DATA POINT 15D-2-3
10 FEET UPLAND (NORTH) OF STAKE "WET 15-D-27"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA
Do Normal Circumstances exist on the site?:	Yes / No	Community ID:	PINE PLANTATION (FLUCFCS CODE 441)
Is the site significantly disturbed (Atypical Situation)?:	Yes / No	Transect ID:	D-2
Is the area a potential Problem Area?: (If needed, explain on reverse)	Yes / No	Plot ID:	3

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (40)	UPL/FACW	TAXODIUM ASCENDENS	C (<1)	OBL/OBL
ACER RUBRUM	S (5)	FACW/FAC			
SERENOA REPENS	S (5)	UPL/UPL			
TAXODIUM ASCENDENS	S (5)	OBL/OBL			
PINUS ELLIOTTII	S (5)	UPL/FACW			
MYRICA CERIFERA	H (5)	FAC/FAC			
ILEX GLABRA	H (5)	UPL/FACW			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 75 (BASED ON SUBCANOPY) FWS: 100 (ALL STRATA)

Remarks: DOES NOT MEET FLORIDA DEFINITION OF HYDROPHYTIC VEGETATION. DOES MEET EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION. SUBCANOPY USED AS "APPROPRIATE VEGETATIVE STRATUM" BECAUSE CANOPY IS PLANTED PINE. IN SUBCANOPY, THERE IS ONLY 25% COVER BY OBL VS. 50% COVER BY UPL, HENCE FAILS "A" TEST. THERE IS ONLY 75% COVER BY OBL+FACW VS. 25% COVER BY UPL, HENCE FAILS "B" TEST.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	NONE	(in.)
Depth to Free Water in Pit:	16	(in.)
Depth to Saturated Soil:	9	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12 inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- ____ Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: NOT WETLAND HYDROLOGY. NONE OF THE HYDROLOGICAL INDICATORS FROM 62-340.500 F.A.C. WERE OBSERVED. EVIDENCE OF WETLAND HYDROLOGY PER FEDERAL CRITERIA IS VERY WEAK.

DATA POINT 15D-2-3
10 FEET UPLAND (WEST) OF STAKE "WET 15-D-3"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-2	A1	2.5Y 2.5/1	NONE	N/A	MUCKY FINE SAND
2-18+	A2 OR B2h	2.5Y 2.5/1	2.5Y 5/1 STREAKS	20:80	MUCKY FINE SAND
				POLYCHROMATIC	
				MATRIX	

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: POINT ON TRANSITION FROM HYDRIC TO NON-HYDRIC SOILS. DARK SURFACE HORIZON LESS PRONOUNCED THAN IN THE WETLANDS.

WETLAND DETERMINATION (FLORIDA)

	(Circle)		(Circle)
Hydrophytic Vegetation Present?	Yes [redacted]	Is this Sampling Point Within a Wetland?	Yes [redacted]
Wetland Hydrology Present?	Yes [redacted]		
Hydric Soils Present?	Yes [redacted]		

Remarks: THIS AREA DOES NOT MEET ANY OF THE CRITERIA FOR A FLORIDA WETLAND IN 62-340.300(2) F.A.C. ALTHOUGH THE AREA DISPLAYS MARGINAL EVIDENCE OF EACH OF THE THREE FEDERAL WETLAND PARAMETERS (ENVIRONMENTAL LABORATORY, 1987), REASONABLE SCIENTIFIC JUDGEMENT SUGGESTS THAT THE AREA FUNCTIONS MORE LIKE AN UPLAND THAN A WETLAND.

FLORIDA CLASSIFICATION: FLUCFCS CODE 441 (PINE PLANTATION)
USFWS CLASSIFICATION: UPLAND (U).

DATA POINT 15E-1-1
CENTER OF DITCH AT STAKE "WET 15-E-11"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:		No	Community ID:	DRAINAGE DITCH
Is the site significantly disturbed (Atypical Situation)?:	Yes		Transect ID:	E-1
Is the area a potential Problem Area?:	Yes		Plot ID:	1
(If needed, explain on reverse)				

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
PINUS ELLIOTTII	C (15)	UPL/FACW	MAGNOLIA VIRGINIANA	S (1)	OBL/FACW
ACER RUBRUM	C (10)	FACW/FAC	MYRICA CERIFERA	S (<1)	FAC/FAC
ILEX GLABRA	S (5)	UPL/FACW	OSMUNDA REGALIS	H (<1)	OBL/OBL
			OSMUNDA CINNAMOMEA	H (<1)	FACW/FACW

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 50 (BASED ON CANOPY) FWS: 100 (ALL STRATA)

Remarks: ALTHOUGH CANOPY DOMINATED BY PLANTED PINE, THE PARTIAL DOMINANCE BY UNPLANTED RED MAPLE (ACER RUBRUM, FAC) AND THE PREVALENT UNDERSTORY AND HERBACEOUS VEGETATION IS USED TO SUPPORT PRESENCE OF HYDROPHYTIC VEGETATION ACCORDING TO THE FLORIDA DEFINITION. ALSO MEETS EPA/COE DEFINITION FOR HYDROPHYTIC VEGETATION. NOTE: THIS VEGETATION REPRESENTS A SHORT SEGMENT OF THE DITCH THAT SUPPORTS A VERY NARROW STRIP OF VEGETATION. MUCH OF THE DITCH IS UNVEGETATED.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-4	(in.)
Depth to Free Water in Pit:	SURFACE	(in.)
Depth to Saturated Soil:	SURFACE	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- X Inundated
- X Saturated in Upper 12 inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- X Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: WETLAND HYDROLOGY. THE FOLLOWING HYDROLOGICAL INDICATOR FROM 62-340.500 F.A.C. WAS OBSERVED: (8) HYDROLOGICAL DATA (DIRECT OBSERVATION OF SURFACE INUNDATION DURING GROWING SEASON.

DATA POINT 15D-2-1
10 FEET WETLAND (SOUTH) OF STAKE "WET 15-D-27"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes **No**

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
0-18+	A1	1G 2.5/N	NONE	N/A	MUCKY FINE SAND

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: HYDRIC SOIL. FDEP HYDRIC SOIL FIELD INDICATOR S7 "DARK SURFACE".

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	[redacted]	No	Is this Sampling Point Within a Wetland?	[redacted]	No
Wetland Hydrology Present?	[redacted]	No			
Hydric Soils Present?	[redacted]	No			

Remarks: THIS AREA IS A FLORIDA WETLAND BASED ON THE "D" TEST, 62-340.300(2)(d), WHICH IS BASED ON THE PRESENCE OF A HYDRIC SOIL AND A HYDROLOGIC INDICATOR. ALSO QUALIFIES ON BASIS OF "A" TEST, 63-340.300(2)(a), WHICH IS BASED ON >50% DOMINANCE BY OBL SPECIES IN APPROPRIATE STRATUM, IF PLANTED PINE IS DISCOUNTED AND CANOPY CONSIDERED TO INCLUDE ONLY THE RED MAPLE AND THE UNDERSTORY AND GROUNDCOVER VEGETATION.

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987).

FLORIDA CLASSIFICATION: WETLAND (FLUCFCS CODE 630)
USFWS CLASSIFICATION: PALUSTRINE FORESTED WETLAND, BROAD-LEAVED DECIDUOUS (PFO1).

DATA POINT 15F-1-1
CENTER OF PIT, APPROX. 5 FEET FROM STAKE "WET 15-F-6"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 1

Project/Site:	NAS CECIL FIELD – IR SITE 15	Date:	10/01/03
Applicant:	SOUTHERN DIVISION NAVFAC	County:	DUVAL
Investigator:	J. PEYTON DOUB, PWS	State:	FLORIDA

Do Normal Circumstances exist on the site?:	[redacted]	No	Community ID:	EXCAVATED PIT
Is the site significantly disturbed (Atypical Situation)?:	Yes	[redacted]	Transect ID:	F-1
Is the area a potential Problem Area?:	Yes	[redacted]	Plot ID:	1
(If needed, explain on reverse)				

VEGETATION

Dominant Plant Species	Stratum (%)	Indicator (FL/FWS)	Other Plant Species	Stratum (%)	Indicator
SALIX NIGRA	H (20)	OBL/OBL			
RHYNCHOSPORA SP.	H (5)	FACW/FACW			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). FLORIDA: 100; FWS: 100

Remarks: MOST OF THIS SMALL MAN-MADE EXCAVATED PIT BOTTOM IS SPARSELY AND IRREGULARLY VEGETATED. SIDE SLOPES OF EXCAVATED PIT SUPPORT OLD FIELD VEGETATION RESEMBLING THAT IN THE SURROUNDING UPLANDS.

HYDROLOGY

Recorded Data (Described in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-4	(in.)
Depth to Free Water in Pit:	SURFACE	(in.)
Depth to Saturated Soil:	SURFACE	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- X Inundated
- X Saturated in Upper 12 inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- X Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks: WETLAND HYDROLOGY. THE FOLLOWING HYDROLOGICAL INDICATOR FROM 62-340.500 F.A.C. WAS OBSERVED: (8) HYDROLOGICAL DATA (DIRECT OBSERVATION OF SURFACE INUNDATION DURING GROWING SEASON.

DATA POINT 15F-1-1
CENTER OF PIT, APPROX. 5 FEET FROM STAKE "WET 15-F-6"
FORMER NAS CECIL FIELD, JACKSONVILLE, FLORIDA – IR SITE 15
WETLAND DELINEATION DATA FORM, PAGE 2

SOIL

Map Unit Name (Series and Phase):	RIDGELAND FINE SAND	Drainage Class:	POORLY DRAINED
Taxonomy (subgroup):	ULTISOLS – TYPIC HAPLAQUODS	Field Observations Confirmed Mapped Type?	Yes [redacted]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture Concretions, Structure, etc,
N/A	N/A	N/A	N/A	N/A	N/A

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soil
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
X	Aquic Moisture Regime	X	Listed on Local Hydric Soils List
___	Reducing Conditions	X	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: HYDRIC SOIL. SOILS THAT ARE FREQUENTLY PONDED FOR A LONG OR VERY LONG DURATION DURING THE GROWING SEASON MEET THE DEFINITION OF HYDRIC SOIL REGARDLESS OF THE PRESENCE OR ABSENCE OF SPECIFIC "FIELD INDICATORS".

WETLAND DETERMINATION (FLORIDA)

	(Circle)			(Circle)	
Hydrophytic Vegetation Present?	[redacted]	No	Is this Sampling Point Within a Wetland?	[redacted]	No
Wetland Hydrology Present?	[redacted]	No			
Hydric Soils Present?	[redacted]	No			

Remarks: THIS AREA IS A FLORIDA WETLAND BASED ON THE "D" TEST, 62-340.300(2)(d), WHICH IS BASED ON THE PRESENCE OF A HYDRIC SOIL AND A HYDROLOGIC INDICATOR.

THIS AREA IS A FEDERAL WETLAND BASED ON THE PRESENCE OF HYDROPHYTIC VEGETATION, HYDRIC SOIL, AND WETLAND HYDROLOGY, BASED ON DEFINITIONS IN THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (ENVIRONMENTAL LABORATORY, 1987).

FLORIDA CLASSIFICATION: WETLAND (NO CORRESPONDING FLUCFCS CODE)
USFWS CLASSIFICATION: PALUSTRINE EMERGENT WETLAND (PEM).

APPENDIX B

WETLAND RAPID ASSESSMENT PROCEDURE (WRAP) SHEETS

WETLAND A

Wetland Rapid Assessment Procedure

(WRAP)

☑ Existing Conditions ☐ Proposed Conditions (Check one)

Application Number	Project Name	Date	Evaluator	Wetland Type
CECILFIELD	SITE 15, WETLAND A	10/1/03	PEYTON DOUB	PFO4

Land Use	FLUCCS Code	Wetland Acreage
CERCLA	620 Description: WETLAND CONIF. FOREST	

Wildlife Utilization (WU)	Wetland Canopy (O/S)	Wetland Ground Cover (GC)
2	2.5	2.5

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
FOREST	2.5	100	2.5
		TOTAL	2.5

Field Hydrology (HYD): 2

WQ Input & Treatment (WQ)*: 3

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(LU) TOTAL	3

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(PT) TOTAL	3

WRAP Score: 0.91

Field Notes:

Wildlife Utilization (WU)

Minimal human disturbance, contiguous to diversity of undeveloped upland habitats,

Wetland Canopy (O/S)

Well stratified, diverse, native vegetation; no undesirable exotic or invasive species

Wetland Ground Cover (GC)

Diverse groundcover with no exotic or invasive species

Habitat Support / Buffer

>300 Feet of undeveloped forested buffer, but planted pine

Field Hydrology (HYD)

Observed saturated conditions appear normal for the wetland, but wetland is contiguous to man-made ditch

WQ Input & Treatment (WQ)

Wetland in 100% natural setting, other than forest management

WETLAND B

Wetland Rapid Assessment Procedure

☑ Check one
☒ Existing Conditions ☐ Proposed Conditions (WRAP)

Application Number	Project Name	Date	Evaluator	Wetland Type
CECIL FIELD	SITE 15, WETLAND B	10/1/03	PEYTON DOUB	PFO4

Land Use	FLUCCS Code	Wetland Acreage
CERCLA	441 Description: PINE PLANTATION	<0.1 ACRE

Wildlife Utilization (WU)	Wetland Canopy (O/S)	Wetland Ground Cover (GC)
2	1.5	1.5

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
FOREST	2.5	100	2.5
		TOTAL	2.5

Field Hydrology (HYD): 0.5

WQ Input & Treatment (WQ)*: 3

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(LU) TOTAL	3

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(PT) TOTAL	3

WRAP Score: 0.61

Field Notes:

Wildlife Utilization (WU)
Undeveloped setting

Wetland Canopy (O/S)
Canopy is planted pine; many pines are dead or dying, apparently due to ponded water

Wetland Ground Cover (GC)
Ground cover of desirable regionally indigenous wetland plants but is influenced by planted pine and ponded water caused by an adjoining dirt roadbed.

Habitat Support / Buffer
>300 feet of undeveloped forest buffer, but is planted pine

Field Hydrology (HYD)
Hydrology appears to be completely attributed to ponded runoff caused by adjoining dirt roadbed

WQ Input & Treatment (WQ)
Wetland in 100% natural setting, other than forest management.

WETLAND C

Wetland Rapid Assessment Procedure

(WRAP)

☑ Check one: ☒ Existing Conditions ☐ Proposed Conditions

Application Number	Project Name	Date	Evaluator	Wetland Type
CECIL FIELD	SITE 15, WETLAND C	10/1/03	PEYTON DOUB	PFO4

Land Use	FLUCCS Code	Wetland Acreage
CERCLA	620 Description: WETLAND CONIF. FOREST	> 10 ACRES

Wildlife Utilization (WU)	Wetland Canopy (O/S)	Wetland Ground Cover (GC)
2	2.5	2.5

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
FOREST	2.5	100	2.5
		TOTAL	2.5

Field Hydrology (HYD): 2

WQ Input & Treatment (WQ)*: 3

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(LU) TOTAL	3

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(PT) TOTAL	3

WRAP Score: 0.81

Field Notes:

Wildlife Utilization (WU)

Minimal human disturbance, contiguous to diversity of undeveloped upland habitats.

Wetland Canopy (O/S)

Well stratified, diverse, native vegetation; no undesirable exotic or invasive species

Wetland Ground Cover (GC)

Diverse groundcover without exotic or invasive species

Habitat Support / Buffer

>300 feet of undeveloped forest buffer, but planted pine and ~50% of buffer is clearcut

Field Hydrology (HYD)

Observed saturated conditions appear normal for the wetland, but wetland is contiguous to a man-made drainage ditch.

WQ Input & Treatment (WQ)

Wetland in 100% natural setting, other than for forest management

WETLAND D

Wetland Rapid Assessment Procedure

☑ Existing Conditions ☐ Proposed Conditions (Check one) (WRAP)

Application Number	Project Name	Date	Evaluator	Wetland Type
CECIL FIELD	SITE 15, WETLAND D	10/1/03	PEYTON DOUB	PFO2

Land Use	FLUCCS Code	Wetland Acreage
CERCLA	621 Description: CYPRESS	

Wildlife Utilization (WU)	Wetland Canopy (O/S)	Wetland Ground Cover (GC)
2	1.5	1

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
FOREST	2.5	100	2.5
		TOTAL	2.5

Field Hydrology (HYD): 2

WQ Input & Treatment (WQ)*: 3

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(LU) TOTAL	3

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(PT) TOTAL	3

WRAP Score: 0.67

Field Notes:

Wildlife Utilization (WU)

Minimal human disturbance, contiguous to diversity of undeveloped upland habitats

Wetland Canopy (O/S)

Canopy substantially sparser compared to other Site 15 wetlands, planted pines are dead or dying (apparently due to inundation), little natural woody vegetation in much of the wetland.

Wetland Ground Cover (GC)

little or no groundcover over much of wetland, even in areas with little or no shade. Could be due to inundation regime or unknown soil factors.

Habitat Support / Buffer

>300 feet of undeveloped forest buffer, but planted pine.

Field Hydrology (HYD)

Observed hydrology appears to be natural for the wetland, but wetland may be influenced by nearby drainage ditch (Wetland E)

WQ Input & Treatment (WQ)

Wetland in 100% natural setting, other than for forest management

WETLAND E

Wetland Rapid Assessment Procedure

☑ Check one
☒ Existing Conditions ☐ Proposed Conditions (WRAP)

Application Number	Project Name	Date	Evaluator	Wetland Type
CECIL FIELD	SITE 15, WETLAND E	10/1/03	PEYTON DOUB	R4

Land Use	FLUCCS Code	Wetland Acreage
CERCLA	N/A Description: DRAINAGE DITCH	<0.1 ACRE

Wildlife Utilization (WU)	Wetland Canopy (O/S)	Wetland Ground Cover (GC)
2	1	2

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
FOREST	2.5	100	2.5
		TOTAL	2.5

Field Hydrology (HYD): 1

WQ Input & Treatment (WQ)*: 3

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(LU) TOTAL	3

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(PT) TOTAL	3

WRAP Score: 0.64

Field Notes:

Wildlife Utilization (WU)
Water feature available to wildlife in generally natural setting

Wetland Canopy (O/S)
Few canopy trees in ditch itself, most parts of ditch shaded by pines on adjoining uplands.

Wetland Ground Cover (GC)
Natural ground cover present except where ditch is inundated.

Habitat Support / Buffer
>300 feet of undeveloped forest buffer, but planted pine.

Field Hydrology (HYD)
Ditch is man-made but could possess hydrological characteristics of some natural intermittent streams

WQ Input & Treatment (WQ)
Wetland in natural setting, other than for forest management

WETLAND F

Wetland Rapid Assessment Procedure

☑ Check one
☒ Existing Conditions ☐ Proposed Conditions (WRAP)

Application Number	Project Name	Date	Evaluator	Wetland Type
CECIL FIELD	SITE 15, WETLAND F	10/1/03	PEYTON DEUB	PEMx

Land Use	FLUCCS Code	Wetland Acreage
CERCLA	641 Description: FRESHWATER MARSH	<0.1 ACRE

Wildlife Utilization (WU)	Wetland Canopy (O/S)	Wetland Ground Cover (GC)
2	1	1

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
FOREST	2.5	100	2.5
		TOTAL	2.5

Field Hydrology (HYD)	WQ Input & Treatment (WQ)*
1	3

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(LU) TOTAL	3

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
Natural	3	100	3
		(PT) TOTAL	3

WRAP Score
0.58

Field Notes:

Wildlife Utilization (WU)
Water feature available to wildlife in generally natural setting.

Wetland Canopy (O/S)
Few willow seedlings but no canopy

Wetland Ground Cover (GC)
Sparse groundcover, may be hindered by poor soil fertility of severely disturbed surface soils

Habitat Support / Buffer
>300 feet of undeveloped buffer consisting of mostly clearcut forest with natural regeneration

Field Hydrology (HYD)
Feature is man-made pit

WQ Input & Treatment (WQ)
Feature is in natural setting

APPENDIX C

PHOTOGRAPHS

Photo 1: Overview of Wetland A, showing pond cypress knees

Photo 2: Pitcher plants, a genus of insectivorous herbaceous plants common in southeastern wetlands, occur in frequent scattered patches in Wetland A.

Photo 3: Virginia chain fern and red maple saplings in Wetland A

Photo 4: Upland vegetation north of Wetland A

Photo 5: Shallow pools of standing water in Wetland A

Photo 6: Overview of Wetland B (narrow swale in center)

Photo 7: Dense patch of wetland herbs in canopy gap in Wetland B

Photo 8: Northern edge of Wetland C (boundary in midsection of photo)

Photo 9: Overview of clearcut in central part of Site 15

Photo 10: Overview of main part of Wetland D

Photo 11: Denser vegetation in southwestern quadrant of Wetland D

Photo 12: Sparse rows of planted slash pine in Wetland D

Photo 13: Overview of Wetland E (drainage ditch). Surface soil in the pictured ditch segment is saturated.

Photo 14: Overview of Wetland F (excavation pit).

APPENDIX D

GEOSTATISTICAL ASSESSMENT REPORT

NEWFIELDS

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TO: Mark Davidson, Mark Jonnet, Mark Richardson, and Michael Maughon
FROM: Michael Wild/ Shahrokh Rouhani –NewFields Atlanta
PROJECT: Cecil Field Range 15
SUBJECT: Range 15 Geostatistical Assessment
DATE: 10/19/2004

Gentleman,

This memorandum summarizes the results of geostatistical analyses of soil data within Site 15 of the Jacksonville Naval Air Station (NAS) Cecil Field (Site 15). The purpose of this assessment was to develop remedial cutlines based on human health and ecological standards. This memorandum has also been revised twice since its original submittal on December 1, 2003. The first revision in August 2004 includes remedial cutlines based on three-times soil cleanup target levels (SCTLs) for Benzo(a)pyrene equivalent (BaPEq) as desired by Florida Department of Environmental Protection (FDEP).[1] This proposed guidance is termed the 3X rule. The latest revision includes four new sampling results taken on September 30, 2004. These samples were taken at locations proposed in the August 2004 version of this memo. A new section was added to the end of this memo to address the results of the latest samples. With the inclusion of the latest samples, delineation of lead and BaPEq is considered to be accurate and complete

TTNUS has already developed standards for Site 15. Instructions for their application are shown below:

- Estimate excavation cutlines of areas where lead is greater than 6500 parts per million (ppm) due to acute human health concerns;
- Determine remedial action limit (RAL) cutline of lead so that the mean concentration of any two acre unit is below the 2512 ppm mammalian ecological standard;
- Determine RAL cutline of BaPEq in soils so that the site-wide upper confidence limit (UCL) of the mean is below 2,250 parts per billion (ppb);
- Estimate excavation cutlines of BaPEq in soils for all areas greater than 6,750 ppb (three times 2,250 ppb).
- Combine and finalize cutlines for lead and BaPEq.

This memo is organized by the tasks listed above. In addition to these tasks, this memo also discusses the need for supplemental and confirmatory samples.

Removal of Lead Above 6500 ppm

Surficial lead concentrations were provided by Mark Jonnet of TTNUS. These samples are shown on Figure 1. In order to delineate areas greater than 6500 ppm, a geostatistical assessment was performed. A standard geostatistical assessment is performed in three steps:

- **Exploratory data analysis** to analyze the spatial and statistical distribution of lead.
- **Structural analysis** to determine the spatial correlation of lead samples.
- **Estimation** to delineate a surface of lead concentrations within the investigated zone.

[1] *Guidance for Comparing Site Contaminant Concentration Data with Soil Cleanup Target Levels (Draft)*, FDEP, February 25, 2004.

Exploratory Data Analysis

Part of the exploratory analysis is to examine the spatial distribution of lead. As indicated on Figure 1, lead clearly demonstrates a northwest to southeast trend as a result of rounds fired from the similarly aligned trap and skeet ranges. This trend is further explored in the structural analysis.

A probability plot[2] was used to determine the statistical distribution of lead samples. The probability for all surficial samples is shown as Figure 2. This figure demonstrates a population breakpoint at approximately 5000 ppm. Lead concentrations greater than 5000 ppm, which account for 12 out of 460 samples collected, can be considered anomalous to population of lead samples. The site-wide average concentration for lead is 990 ppm, which includes the anomalous values.

Segmented populations are often construed as log-normally distributed, as the shape of a probability plot for a segmented dataset is similar to that of a log-normal dataset. Transformation of the lead to log values (Figure 3) demonstrates that lead is not log normally distributed and that the segmented population is still apparent.

Structural Analysis

A geostatistical analysis must be initiated by a variogram[3] or structural analysis for quantifying the correlation between data points. The spatial structures of field data are determined through computation of sample variograms. For this purpose, all pairs of measurement values in a dataset are compared to each other in order to provide a consistent measure of their degree of spatial correlation. The resulting differences between paired measurements are then grouped according to their separation distance and the orientation of their separation vector.

The variogram of the lead samples is shown by Figure 4. This figure includes both a non-directional and a directional variogram. As noted in the exploratory analysis, the lead samples have a directional trend from northwest to southeast. This trend was confirmed in the structural analysis and was determined to be strongest at 130 degrees. At this angle, the range of correlation was approximately 400 feet. Perpendicular to this angle, the range was approximately 260 feet.

Both the directional and non-directional variogram excluded the anomalous lead values greater than 5000 ppm. These samples, however, will be used in the estimation of lead concentrations for Site 15.

Estimation

Upon determination of the variogram model, the geostatistical estimation process known as point or block kriging can be performed as:

$$Z_o^* = \sum_{i=1}^{n} \lambda_i z_j$$

---

[2] Probability plots are highly effective graphical tools for determining the type of the statistical distribution of measured values of a contaminant (e.g., DON, 2002). A straight-line probability plot indicates that the data are normally distributed. If the data are log-transformed, then the straight-line would imply a log-normal distribution. A segmented probability plot usually suggests the presence of multiple populations among measured values. In many instances, the presence of multiple populations can be attributed to the co-existence of residual and hot spot data.

[3] EPA/600/4-88/033a defines the variogram as the plot of the variance (one-half the mean squared difference) of paired sample results as a function of their separation distance.

where,

Z_o^*	=	Estimated point or block value centered at x_o,
z_i	=	Measured value at x_i,
λ_i	=	Estimation weight of z_i.

The computations of the above estimation weights are conducted on the basis of two criteria, which are: (1) non-bias condition and (2) minimum estimation variance. In statistical terms, geostatistical estimates are best linear unbiased estimates. Any point or block estimate, Z_o^*, comes with its own measure of accuracy in the form of an estimation (kriging) standard deviation, usually denoted as σ_o. The estimation standard deviation value can be used to calculate a 95% UCL.

Point kriging was used to estimate lead concentrations in the surficial soils of Site 15. The iso-concentration map of the estimated values is shown as Figure 5. Areas greater than 6500 ppm are shown in red.

Removal of Lead to Meet Ecological Standard

Domain Exceedance

The ecological standard of 2512 ppm is applied over a two-acre domain. Block kriging of the lead values was used to determine domains that exceeded this standard after removal of lead concentrations greater than 6500 ppm. For this purpose, an approximation of block kriging was used. This approximation averages point kriged estimated values within a polygonal domain of any shape or position. This method was used to allow for the random placement of a domain grid rather than the fixed block cells of the geostatistical software. This method also allows replacement of removed zones with lead concentrations representative of clean fill. Figure 6 demonstrates domains that exceed 2512 ppm.

RAL and Cutline Determination

As noted on Figure 6, two domains exceed the ecological standard even with removal of the highest lead concentration zones due to acute human health concerns. This means that further removal is required in the vicinity of these domains in order to meet ecological standards.

RAL is iteratively determined so that any two acre parcel would be less than 2512 ppm. Spatial Analyst for ArcGIS extension was used to replace estimated lead cells greater than the RAL with a concentration of five ppm, which is an estimate of clean fill. The cells of the estimated lead and clean fill were then re-summarized within each two-acre domain. Using this method, the RAL is determined to be 4000 ppm. Removal of lead greater than 4000 ppm is only required within or in the vicinity of the two exceeded domains. Figure 7 shows the 4000 ppm cutlines as well as the 6500 ppm cutlines.

Removal of BaPEq to Meet Site-Wide Human Health Standard

Surficial BaPEq concentrations were calculated and provided by TTNUS. The BaPEq concentrations are meant to represent carcinogenic polyaromatic hydrocarbons (cPAHs). The presence of cPAHs is likely the result of burning old ammunition and igniting surplus rockets to destroy the propellants. The presence of some cPAHs may also be the result of forest fires. Figure 8 demonstrates the BaPEq results for the site.

Exploratory Data Analysis

Unlike the lead samples, the BaPEq results do not depict an apparent directional trend. Also, higher concentration areas of BaPEq are not correlated to the elevated lead samples. Samples were collected using

a sampling grid except in the region of the former burn chamber. A higher density of samples is clustered in this area.

The probability for all surficial samples is shown on Figure 9. This figure includes two plots: one with no limits to the Y axis (concentration) and a second that limits the dataset to values less the 500,000 ppb. These plots demonstrate a population breakpoint at approximately 10,000 ppb. BaPEq concentrations greater than 10,000 ppb, which account for 47 out of 366 samples, are anomalous with respect to the population of the other BaPEq samples. The site-wide average concentration for BaPEq is 15,100 ppb, which includes the anomalous values. The 95% UCL is 21,500 ppb

Figure 10 demonstrates the probability plot of log transformed values. As with the lead dataset, the BaPEq sample values depict a segmented population and are not log-normally distributed.

Structural Analysis

The variogram analysis of BaPEq values over the entire site resulted in noisy sample variograms. A moving window variogram analysis indicated that these noisy results are attributed to the dense cluster of elevated BaPEq values around the former burn chamber. Upon removal of this cluster of data, variogram analyses are redone. The resulting variogram of BaPEq (Figure 11) yields a well-defined spatial structure with no directional tendency.

Estimation

Point estimation of the BaPEq values is performed, as shown on Figure 12. This figure also plots the measured values on top of the estimated surface. Due to the presence of some very high concentrations of BaPEq in certain areas, the kriged estimates are overestimated as compared to measured values. Therefore, the estimated surface of BaPEq can be considered as a conservative estimate of concentrations in soil.

Domain Exceedance

Exposure to cPAHs is on a site-wide basis. Therefore, all of Site 15 is considered as the exposure domain. From the exploratory data analysis, the average and 95% UCL of the site BaPEq are 15,100 and 21,500 ppb, respectively. However, these estimates are impacted by the clustered nature of the samples that are biased toward the impacted area (Figure 8). To correct this bias, block kriging is performed. The block kriged average over the site is 9,440 ppb, with a 95% UCL of 12,900 ppb.

RAL and Cutline Determination

RAL is iteratively determined so that site-wide 95% UCL would be less than 2,250 ppb. Spatial Analyst for ArcGIS extension was used to replace estimated BaPEq cells greater than the RAL with a concentration of 100 ppb, which is a conservative estimate of clean fill according to TTNUS. The cells of the estimated BaPEq and clean fill were then re-summarized over the site. Using this method, the RAL was determined to be 35,000 ppb.

A validation of this RAL was performed using the measured BaPEq values. If the measured values are limited to only those less than 35,000 ppb, the 95% UCL is 2,200 ppb, which is below the 2,250 ppb standard (see Figure 13). The 95% UCL drops to 2,070 ppb if the measured values greater than 35,000 ppb are replaced with 100 ppb.

Removal of BaPEq to Meet 3X Rule

Cutline Determination

FDEP has proposed guidance to remove "hotspots" that may remain as the result of removals based on 95% UCL calculations. This guidance suggests removing point locations greater than three times applicable SCTLs, which for BaPEq would be 6,750 ppb (FDEP 2004, Item 8, page 6).

According to an April 12, 2004 memorandum by Ted Simon, Region IV EPA, cPAHs do not produce acute (short-term) toxic exposure and, consequently, the 3X rule is not applicable for random point location exposure. However, non-random exposure may exist in areas that could be frequented by a receptor, such as roads, bike paths and remnants of site structures.[4]

Originally, only areas deemed potential non-random sites that exceeded 6,750 ppb were delineated by NewFields and submitted to EFD South on May 11, 2004. Finally though, FDEP preferred that all areas greater than 6,750 ppb be delineated.

These areas were delineated by hand to ensure that all samples exceeding 6,750 were included. This delineation is provided as Figure 14 and includes all BaPEq values adjacent to sample locations.

Site-Wide 95% UCL using Three-times Rule

The site-wide 95% UCL for BaPEq was calculated using the remaining less than 6,750 samples. The resulting value was 797 ppb. The 95% UCL drops to 695 ppb if the measured values greater than 6,750 ppb are replaced with 100 ppb. This is more than three times lower than the 2,250 ppb site-wide standard.

Cutlines for Lead and BaPEq

Cutlines were produced for both Lead and BaPEq. The risk-based lead contours shown in Figure 7 were revised slightly by hand to improve excavation implementation in the field. The BaPEq contours presented in Figure 14, which were preferred by FDEP, were combined with the revised lead contours. These cutlines and the results for both Lead and BaPEq are shown in Figure 15. The BaPEq and Lead cutlines do not overlap.

The excavated areas are 1.84 acres for lead and 5.33 acres for BaPEq. Assuming a one foot excavation depth, the total excavation volume would be approximately 11,500 cubic yards.

Supplemental Sampling

Site 15 has been thoroughly sampled for both lead and cPAHs. Variogram analysis demonstrates ranges of correlation of over 300 – 400 feet for lead and 275 feet for BaPEq. Sampling density for both parameters is typically 100 feet or less. Consequently, this site could even be considered oversampled. However, there are areas that present that warrant sampling before or during excavation. These areas demonstrate high concentrations of lead or BaPEq, near excavation cutlines and without adjacent samples (shown on Figure 16). The addition of these samples to the GIS should improve the accuracy of the delineated cutlines and resolve the impact of an anomalously high lead sample in the southern portion of the site.

The proposed supplemental samples were collected on September 30, 2004. The next section addresses the results of these samples and their impact to the analyses performed as part of this memorandum.

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[4] According to Mark Davidson, Southern Engineering Field Division Naval Facilities Engineering Command (EFD South), all site structures have been removed.

Inclusion of Supplemental Samples and Revised Cutlines

The September 30, 2004 samples were added to the GIS and the geostatistical analysis of both lead and BaPEq was recalculated. These samples had no impact on the measured spatial correlation of either constituent dataset. However, as expected, the samples did improve the accuracy of the delineated cutlines.

Both the lead and the BaPEq cutlines were revised to include the results of these samples. Figure 17 demonstrates the revised cutlines and all measured values of lead and BaPEq. The most notable difference is the expansion of the BaPEq contour to include a new sampling result that exceeded 6,750 ppb. The sample result of 12,423 ppb was well below nearby estimated kriged values of 83,000 ppb shown in Figure 12. Other cutlines were revised slightly inward to account for the less than expected lead and BaPEq results. The two new lead results adjacent to the southernmost cutline demonstrated that Site 15's highest lead concentration of 41,400 ppm was either erroneous or very limited in spatial extent.

Conclusions

With the inclusion of the latest samples, delineation of lead and BaPEq is considered to be accurate and complete. Also, confirmation (post-excavation) samples are not warranted due to three facts:

- The removed soils will be replaced with clean fill,
- The horizontal sampling density is less than half of the measured spatial correlation, and
- The BaPEq cutlines using the 3X rule over-excavates the site and produces a site-wide UCL more than three times <u>lower</u> than the 2,250 ppb site-wide standard.

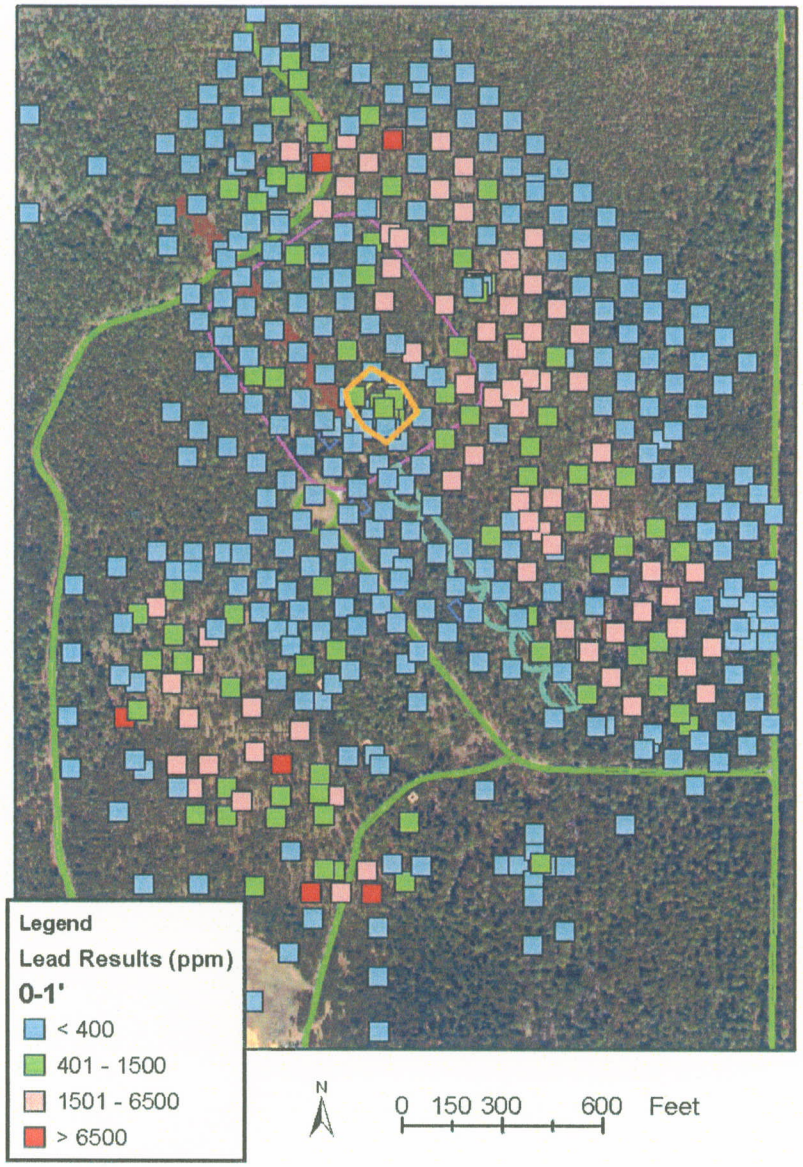


Figure Notes:

This figure demonstrates average lead soil concentrations in the surficial soils at Site 15.

Figure 1
Post Plot of All Data
COC: Lead

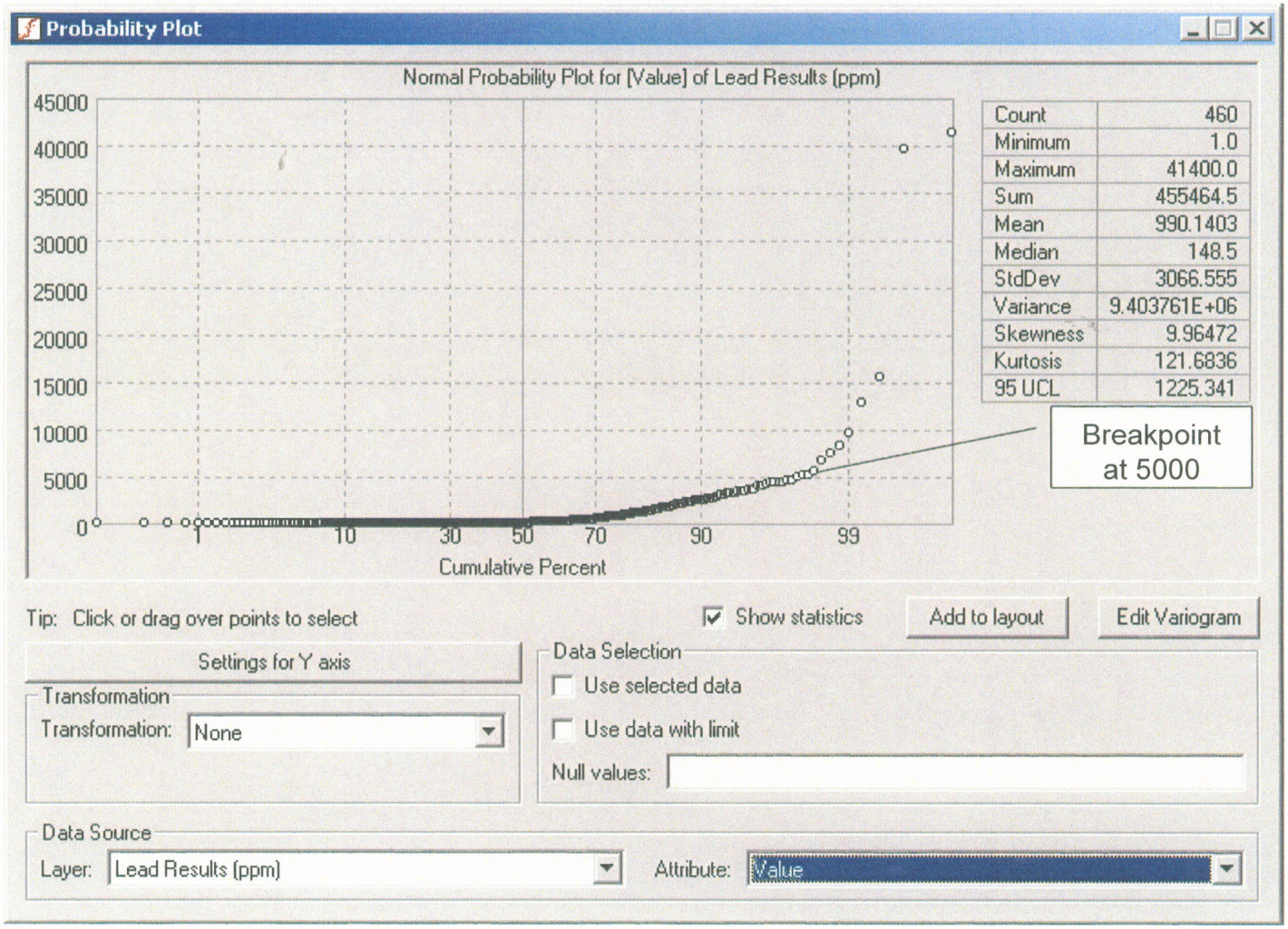


Figure Notes:

This figure demonstrates average lead soil concentrations for all sample locations. The data demonstrate multiple populations.

Figure 2
Probability Plot of All Data
COC: Lead

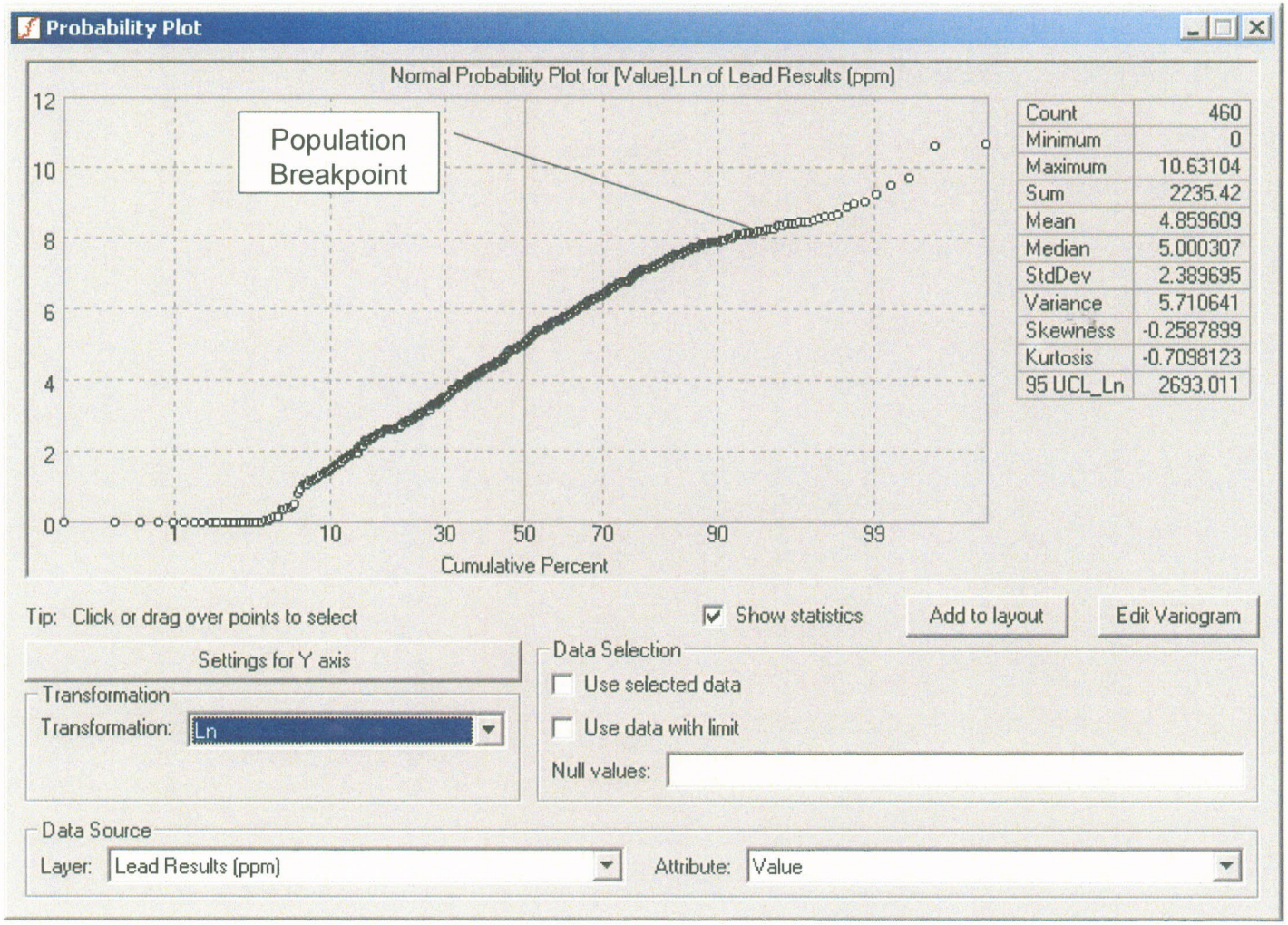
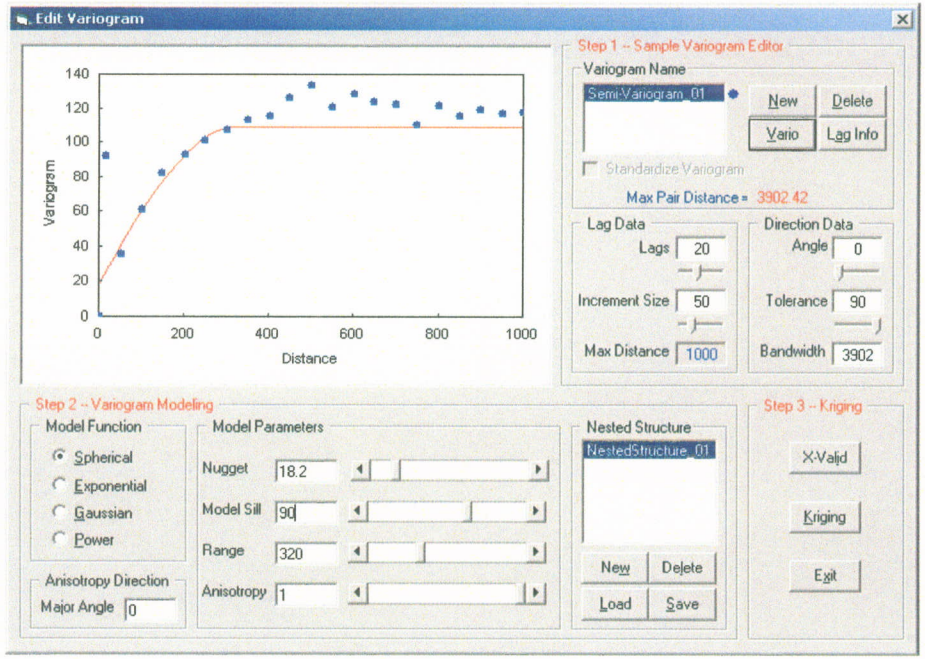


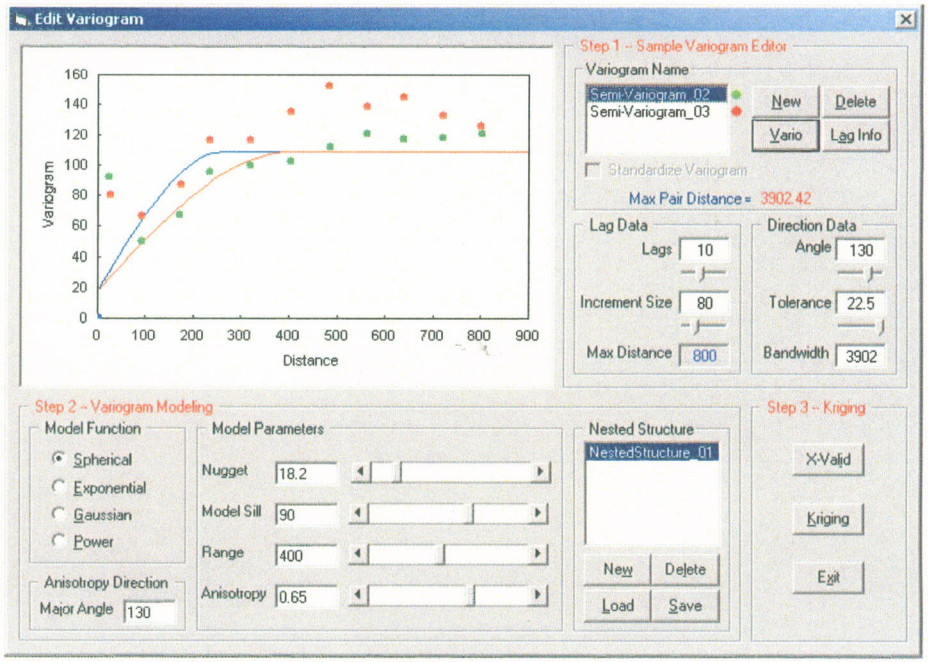
Figure Notes:

This figure demonstrates the log of average lead soil concentrations. The data do not demonstrate a log-normal distribution.

Figure 3
Probability Plot of Log-Transformed Data
COC: Lead



Non-Directional Variogram



Directional Variogram

Figure Notes:

This figure indicates correlational structure using all available site data with concentrations less than 5,000 mg/kg. A directional preference was determined at 130°. Data was converted to parts per 10^4 before variography.

Figure 4
Non-directional and Directional Variograms
Dataset: < 5,000 mg/kg
COC: Lead

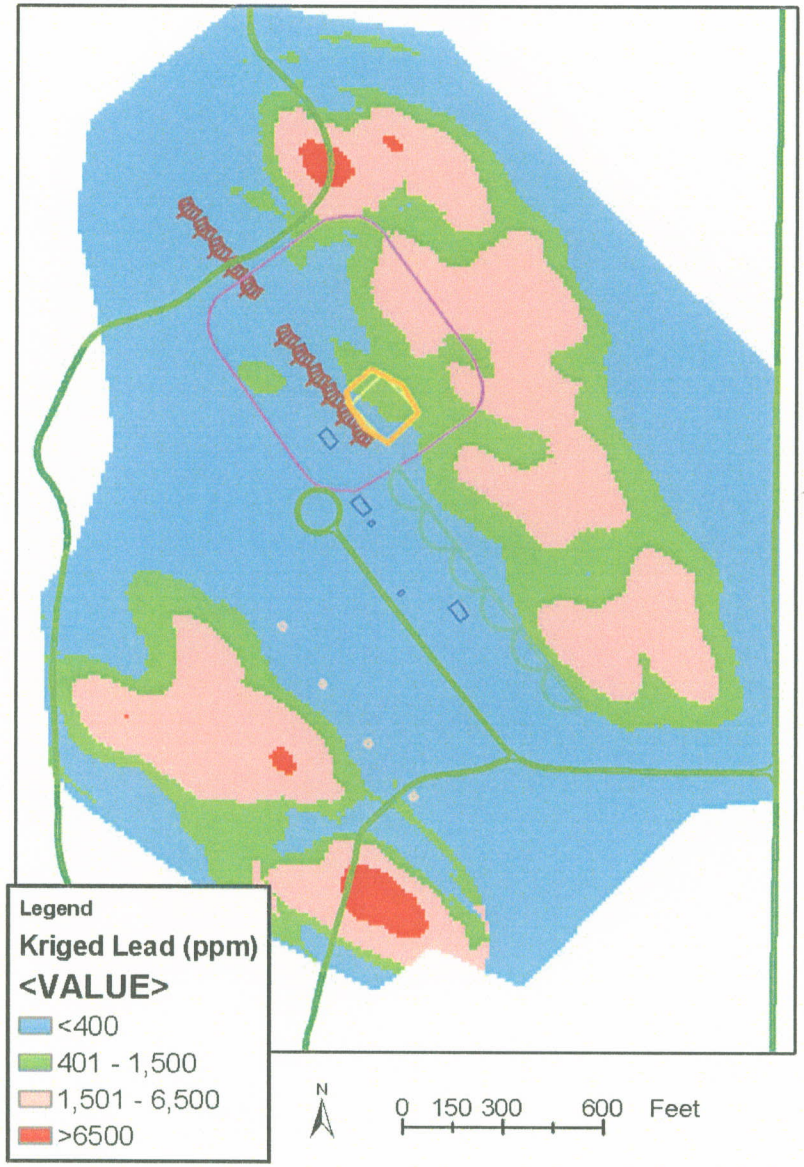


Figure Notes:

This figure demonstrates the point kriged isoconcentration surface of estimated lead in the surficial soils at Site 15.

Figure 5
Kriged Isoconcentration Surface
COC: Lead

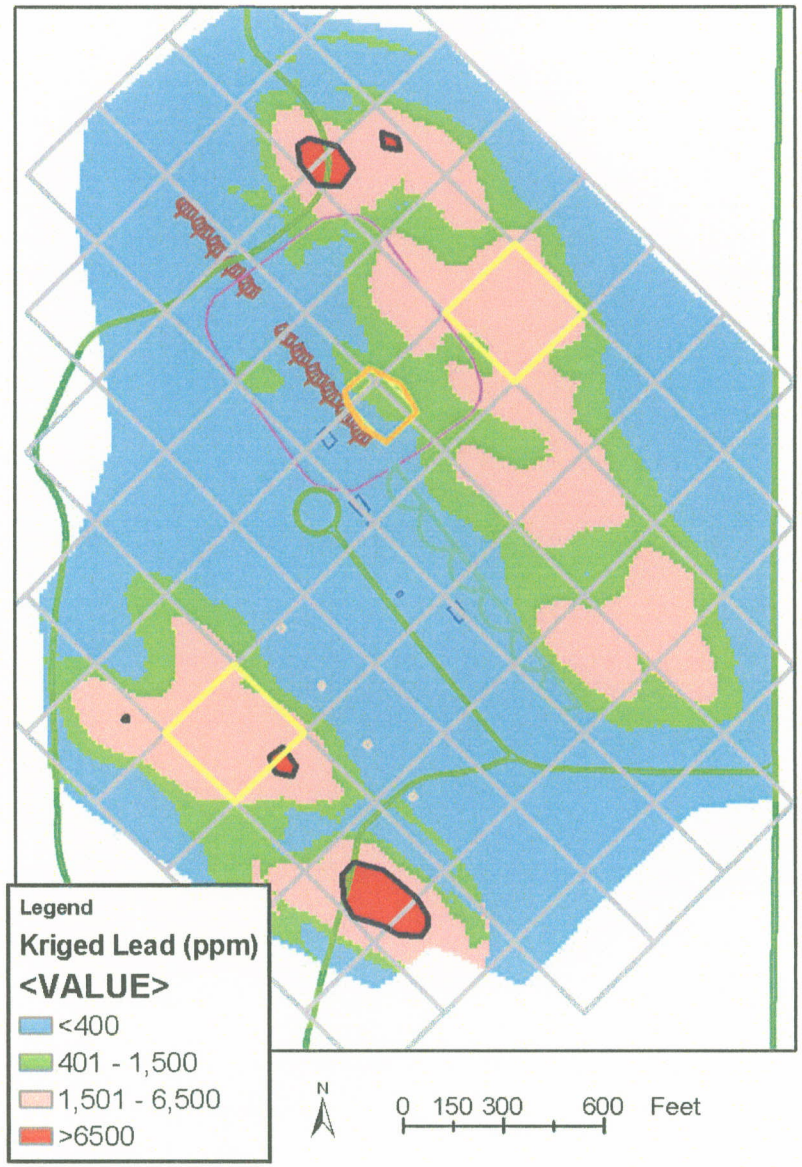


Figure Notes:

This figure demonstrates the block summarized concentrations of the point kriged isoconcentration surface. Highlighted domains exceed 2512 ppm. These exceedances are present after the 6500 ppm zones have been removed.

Figure 6
Domain Exceedances
COC: Lead

Figure Notes:

This figure demonstrates the 4000 ppm RAL required to achieve a 2512 ppm value or less for any two-acre domain. Note that the RAL is limited to only areas in the vicinity of exceeded domains.

Figure 7
RAL Cutlines
COC: Lead

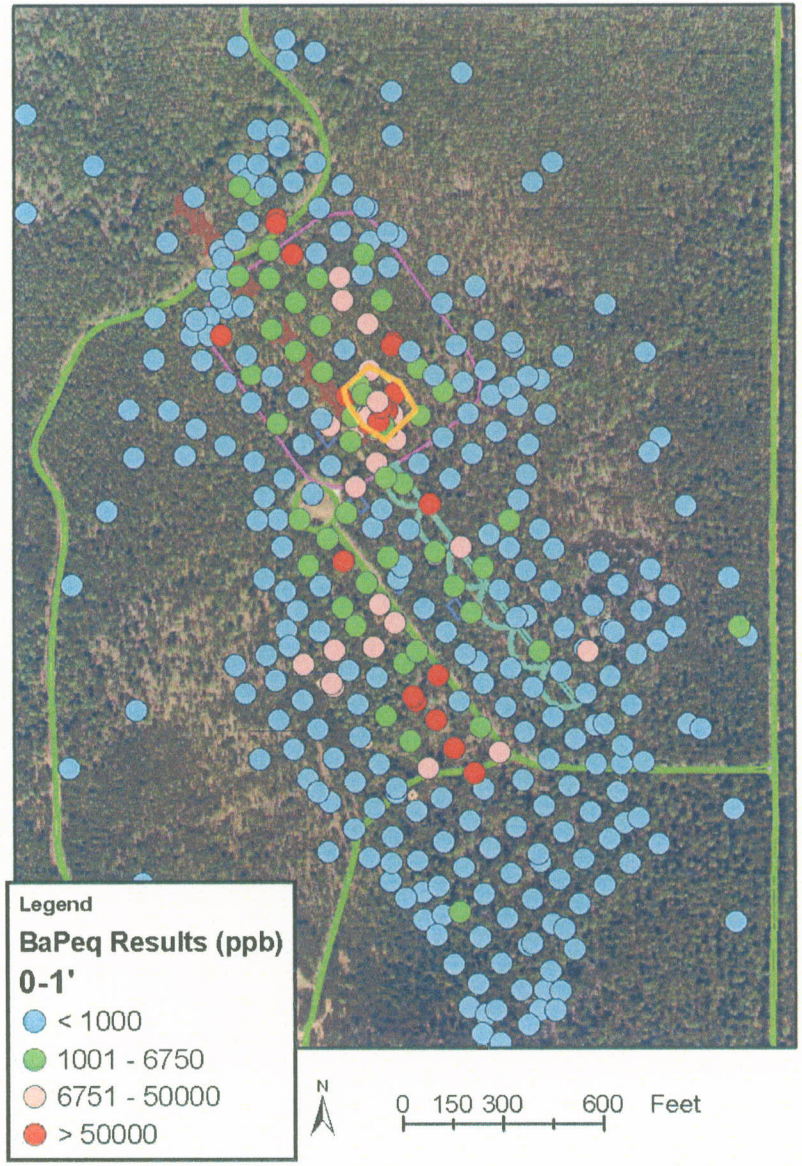
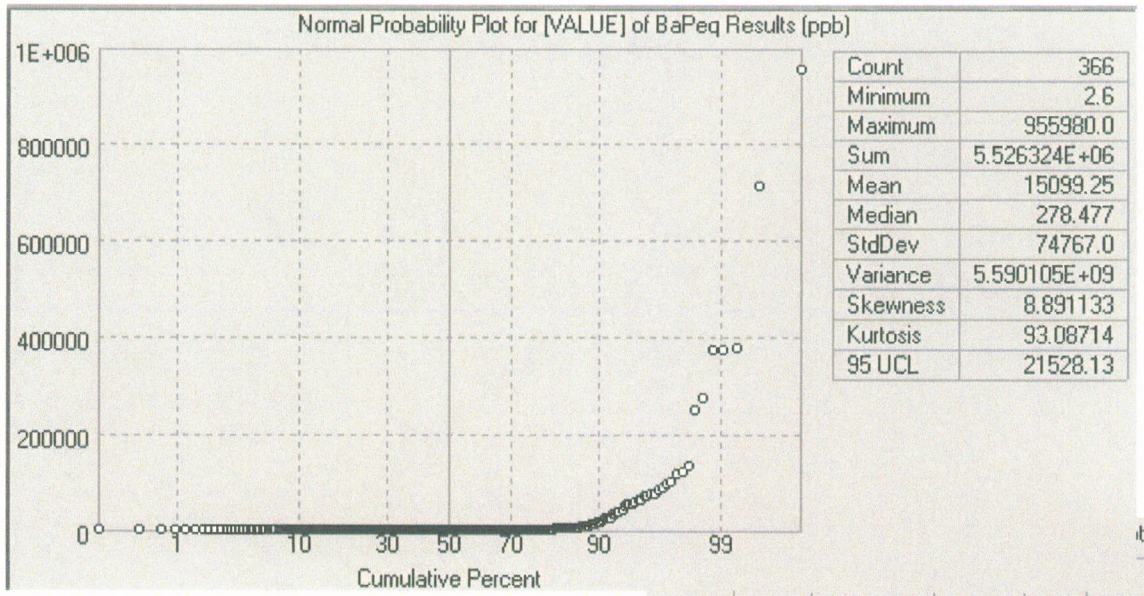


Figure Notes:

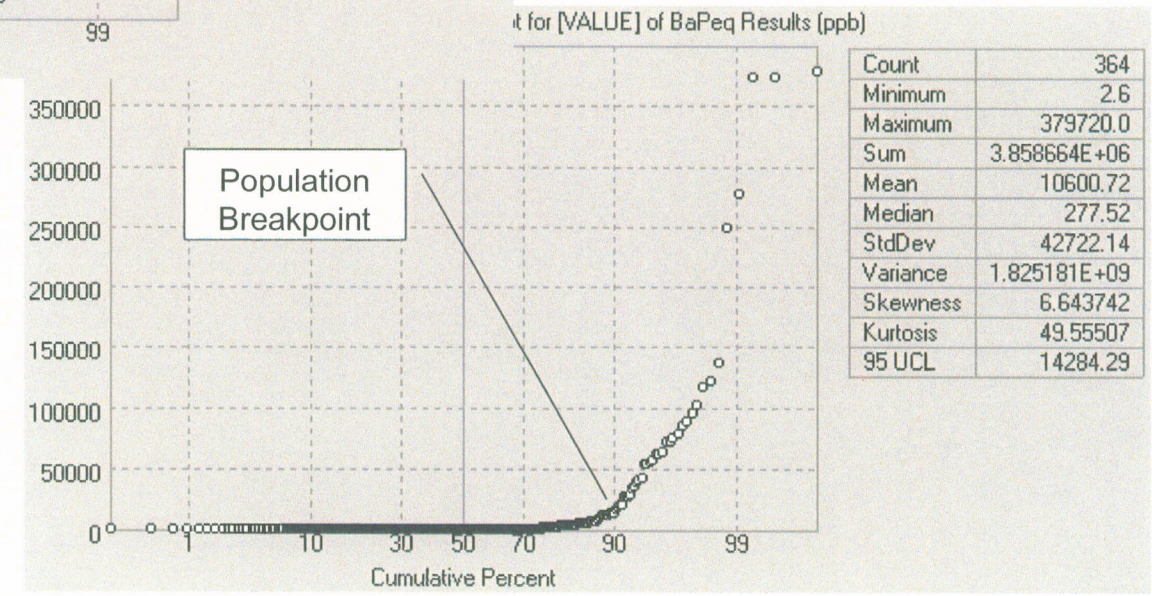
This figure demonstrates benzo(a)pyrene equivalent concentrations in the surficial soils at Site 15. The approximate location of the burn chamber,shown in orange, is in the north central portion of the site.

Figure 8
Post Plot of All Data
COC: BaPEq



Count	366
Minimum	2.6
Maximum	955980.0
Sum	5.526324E+06
Mean	15099.25
Median	278.477
StdDev	74767.0
Variance	5.590105E+09
Skewness	8.891133
Kurtosis	93.08714
95 UCL	21528.13

A



Count	364
Minimum	2.6
Maximum	379720.0
Sum	3.858664E+06
Mean	10600.72
Median	277.52
StdDev	42722.14
Variance	1.825181E+09
Skewness	6.643742
Kurtosis	49.55507
95 UCL	14284.29

B

Figure Notes:

This figure demonstrates average BaPEq soil in the 0-1' interval. Plot B is limited to values less than 500,000 ppb. These figures demonstrate multiple populations. The dominant population is less than 10,000 ppb.

Figure 9
Probability Plot of Data
- All and Limited Datasets
COC: BaPEq

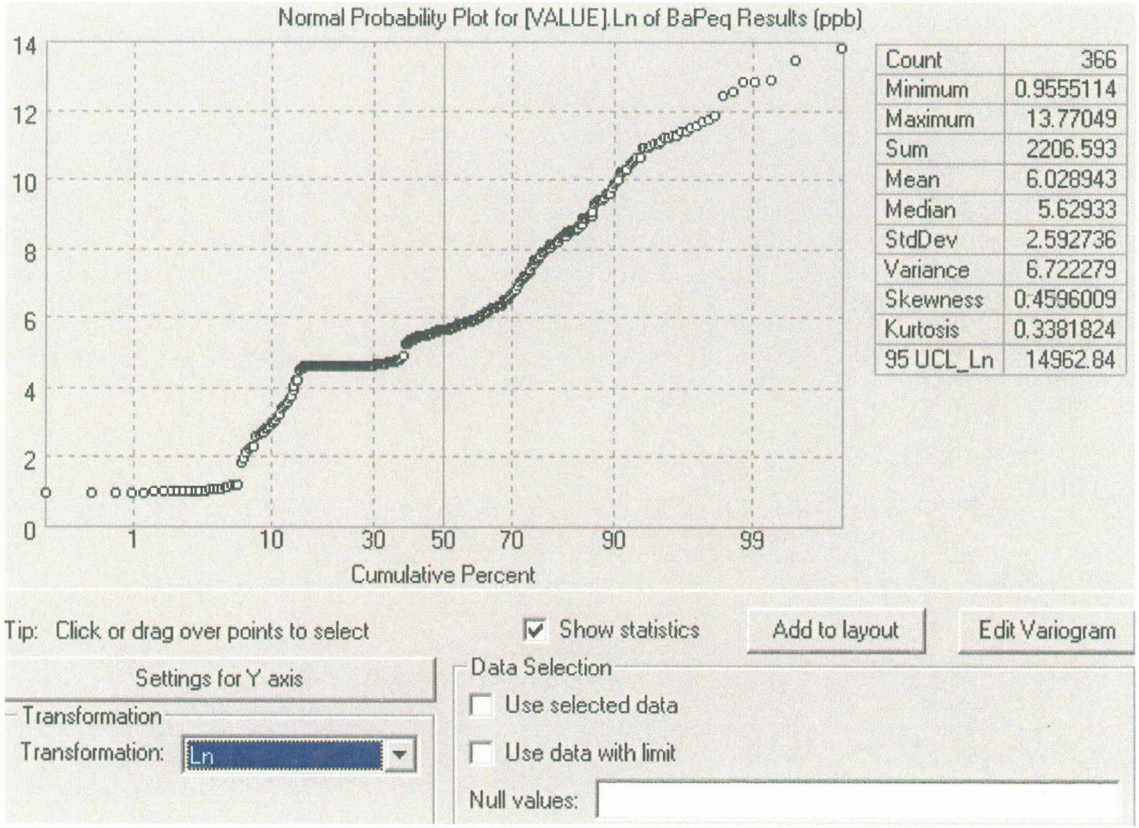


Figure Notes:

This figure demonstrates the log of BaPEq soil concentrations. The data demonstrate multiple populations and do not demonstrate a log normal distribution.

Figure 10
Probability Plot of Log-Transformed Data
COC: BaPEq

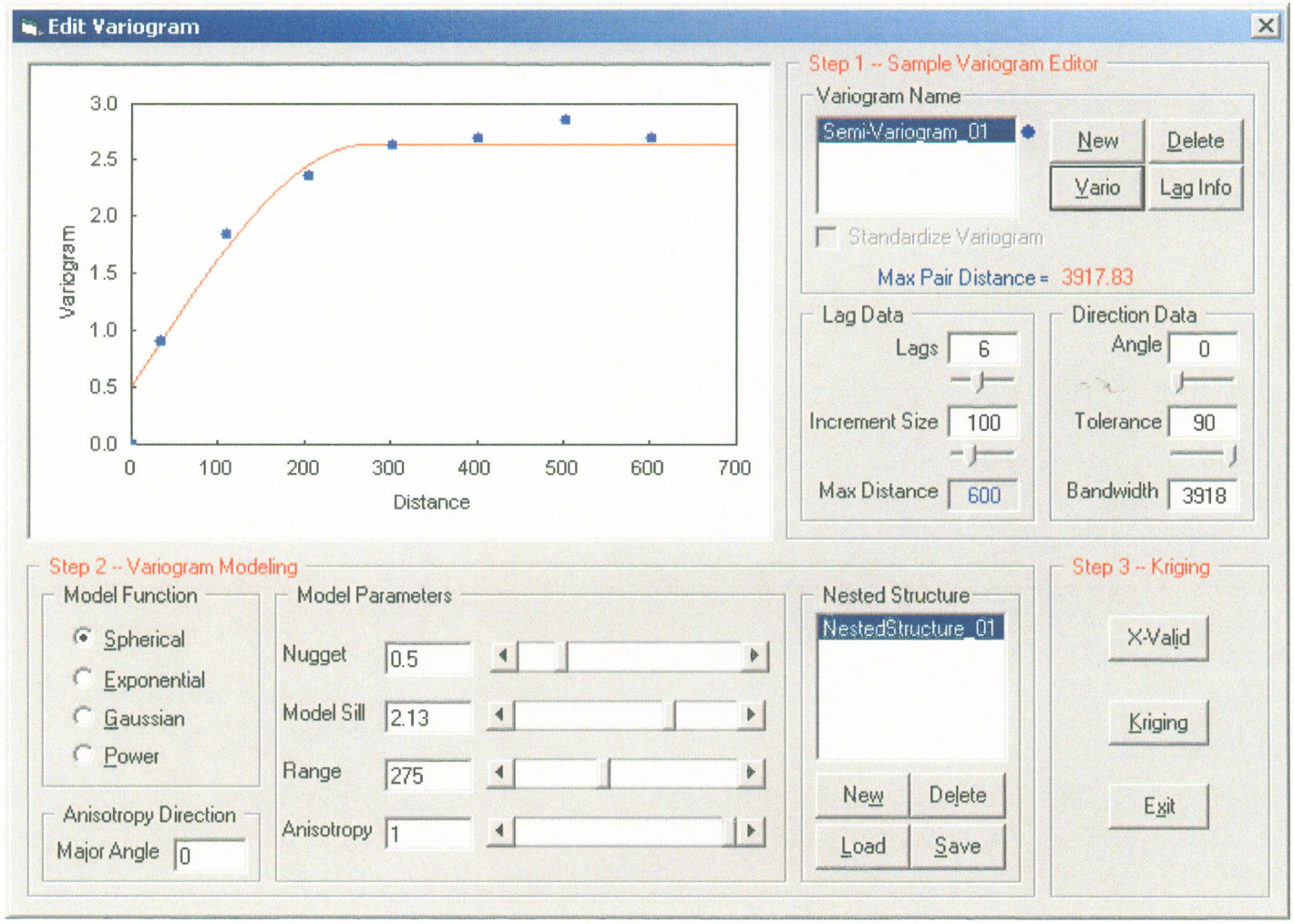


Figure Notes:

This figure indicates correlational structure using site data less than 10,000 ug/kg and excluding a sampling cluster. No directional tendency was detected. The data was divided by 1,000 before variography.

Figure 11
Non-directional Variogram
Dataset: < 10,000 ug/kg
COC: BAPe

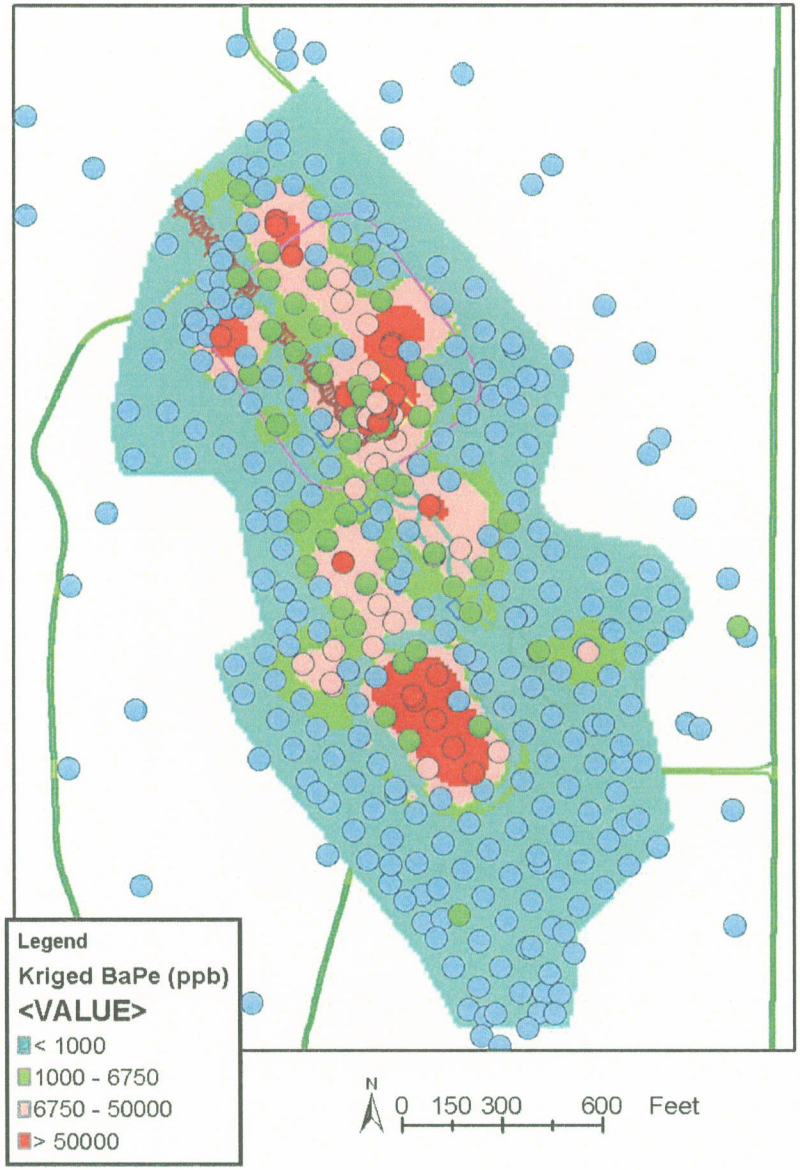


Figure Notes:

This figure demonstrates the point kriged isoconcentration surface of estimated BaPEq in the surficial soils at Site 15. The measured samples are included for comparison purposes.

Figure 12
Kriged Isoconcentration Surface
COC: BaPEq

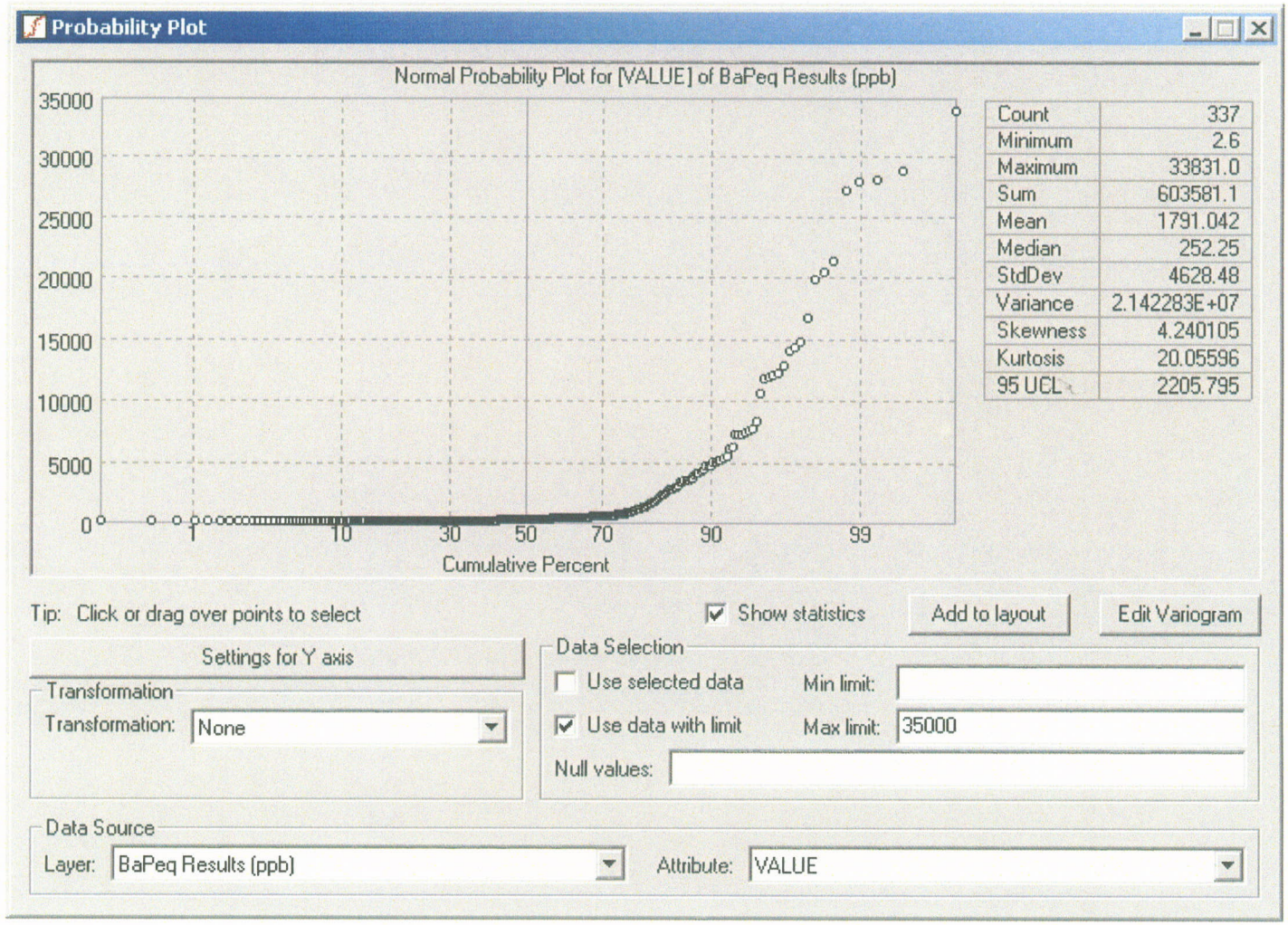


Figure Notes:

This figure demonstrates the probability plot of measured values less than 35,000 ppb. This produces a 95 UCL of 2205 and a mean of 1791 ppb.

Figure 13
Probability Plot of Data
Limited to < 35,000 ppb
COC: BaPEq

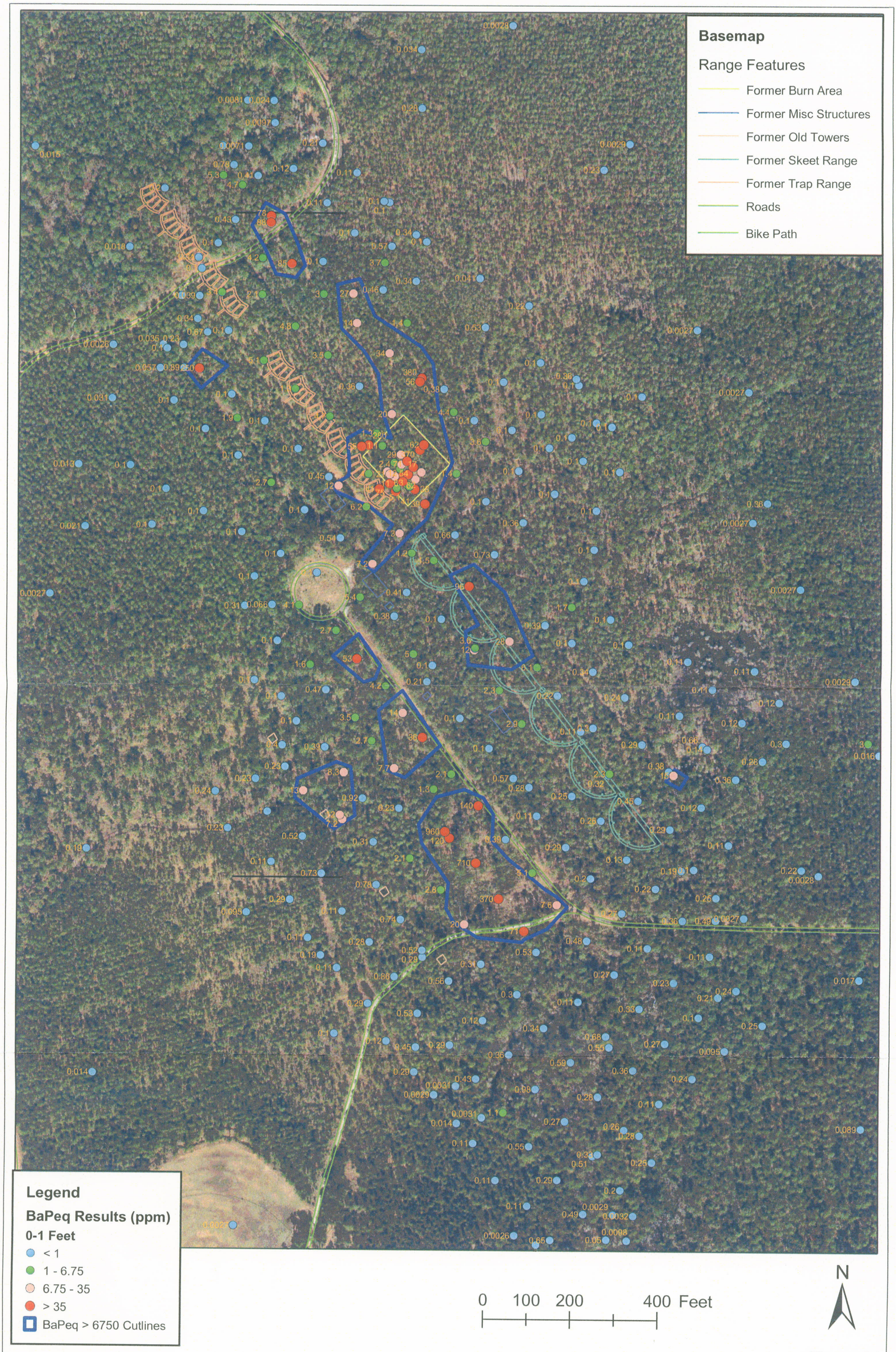


Figure 14
BaPeq Results with Cutlines

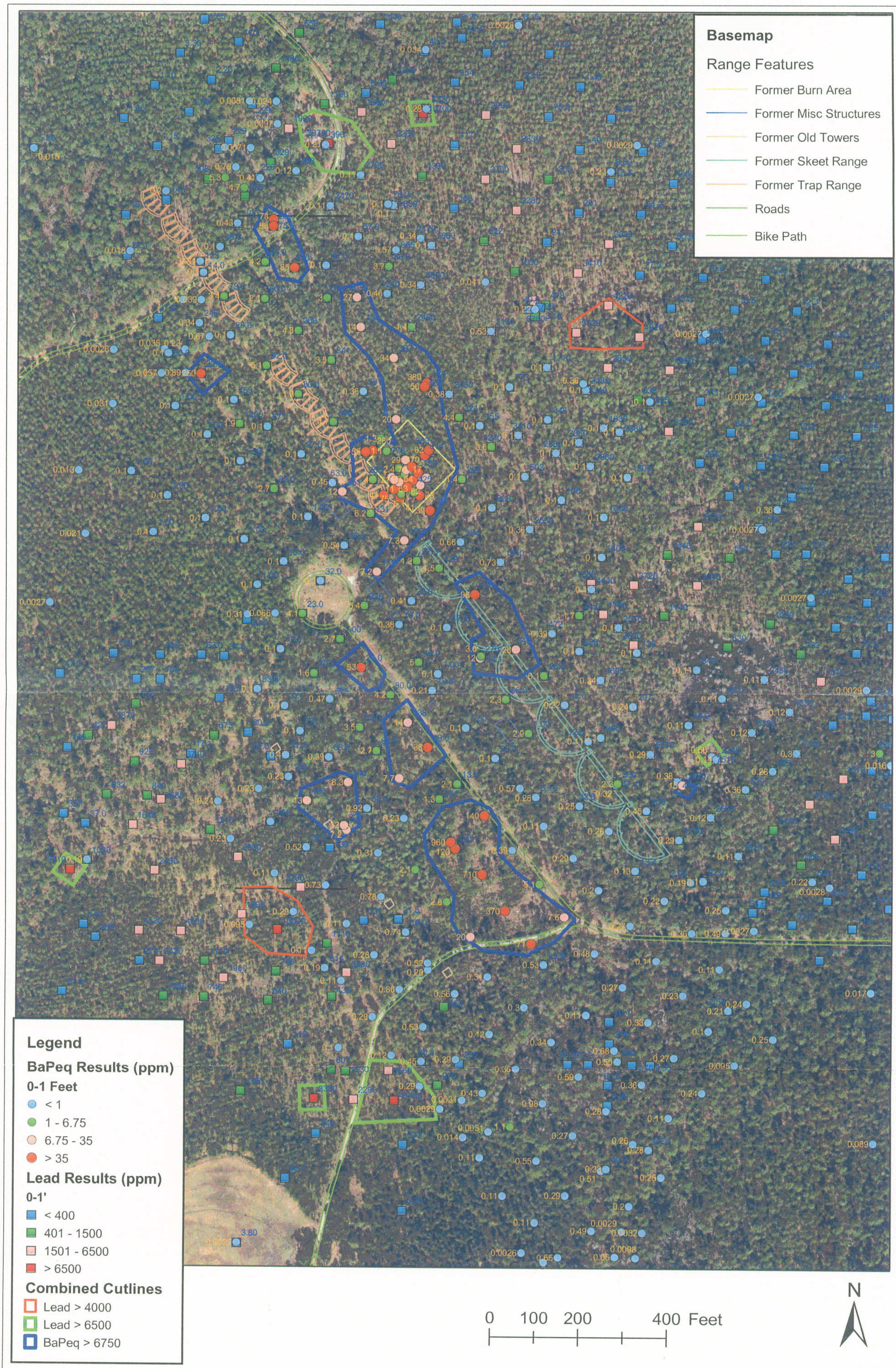


Figure 15
Combined Lead and BaPeq Results with Cutlines

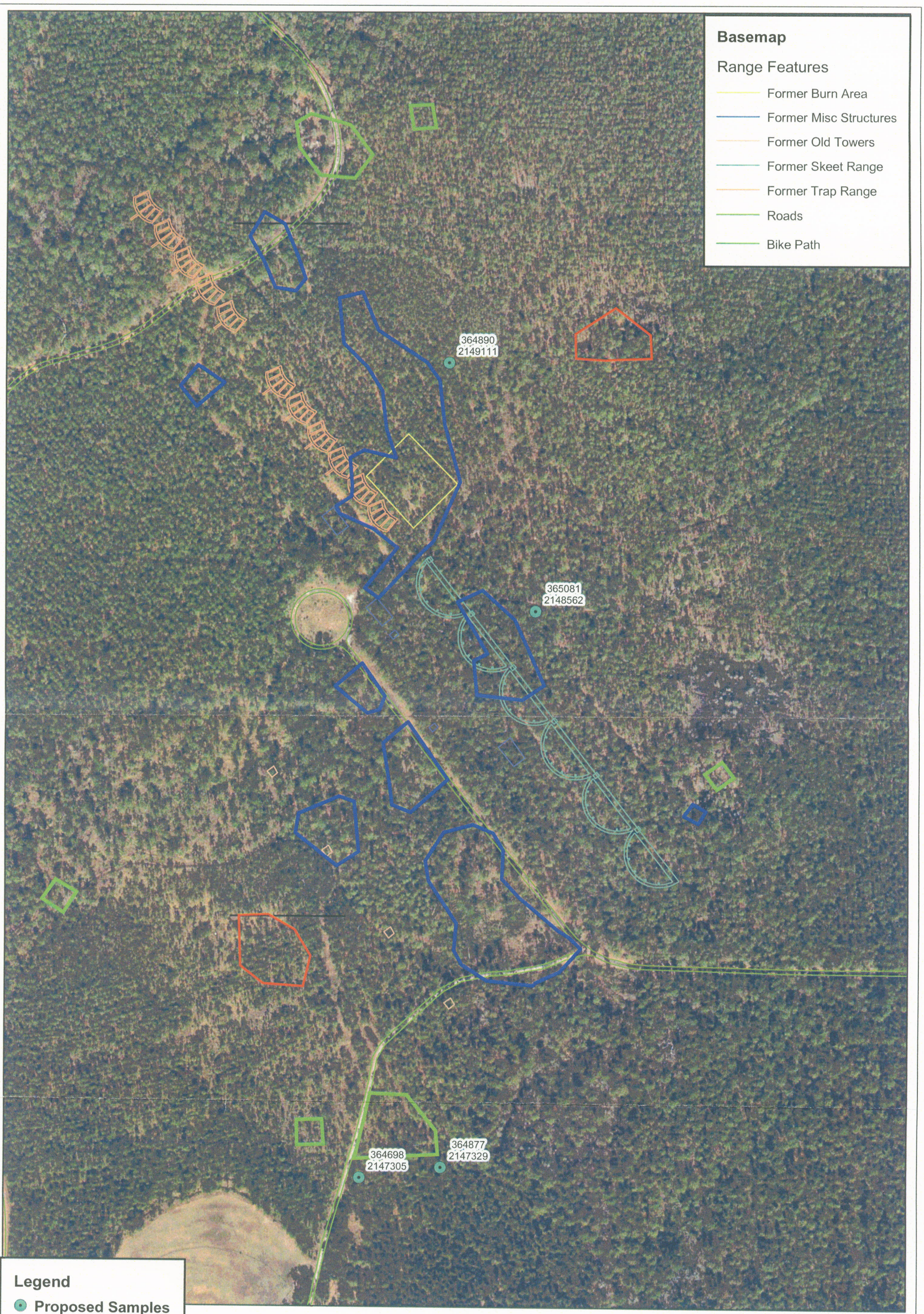


Figure 16
Proposed Pre-Excavation Samples

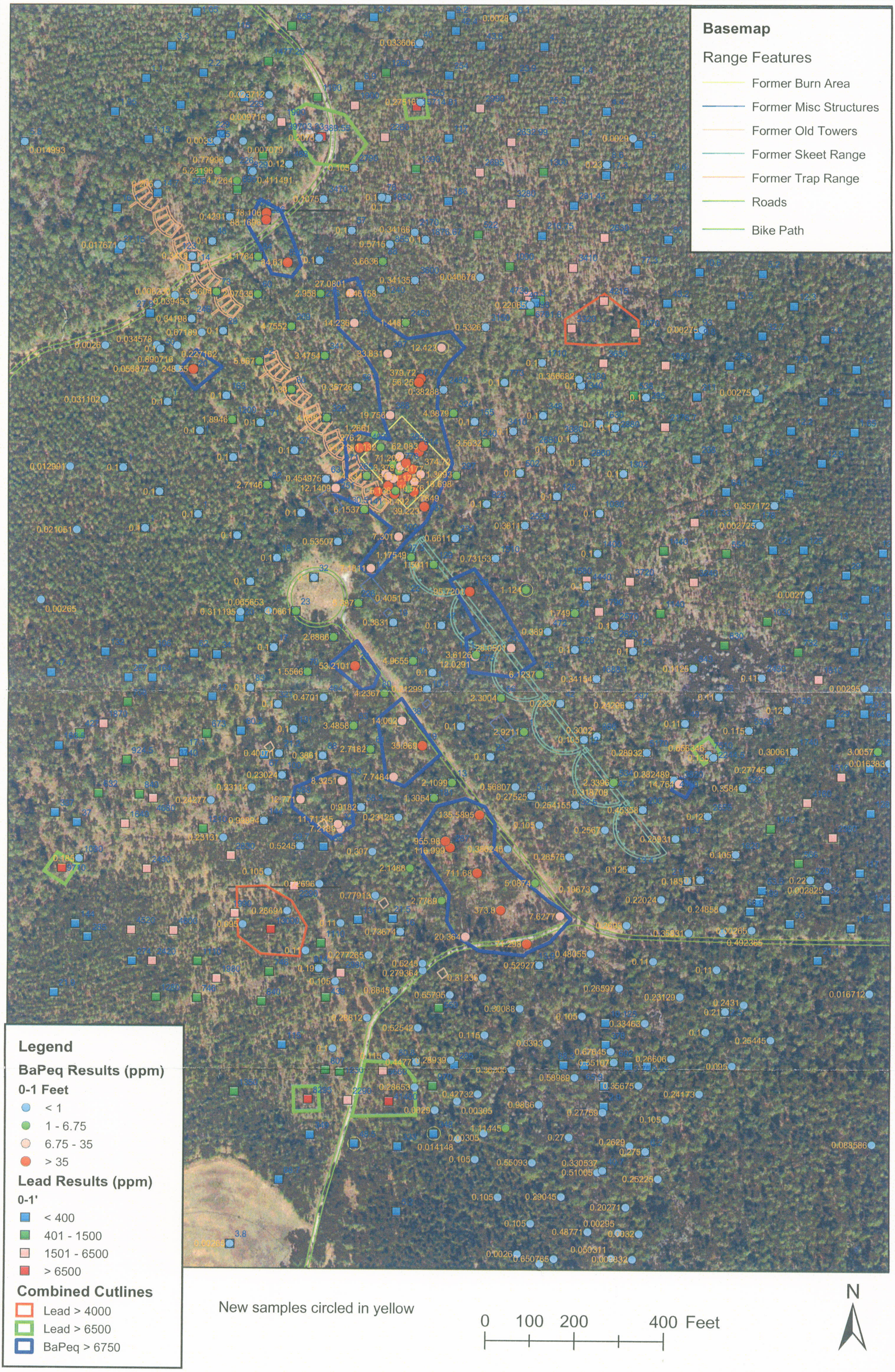


Figure 17
Combined Lead and BaPeq results with Revised Cutlines

APPENDIX E

ANALYTICAL RESULTS DATA BASE

E-1: SOIL

- E-1.1: Screening Soil Analytical Results (August 1994 - April 1995)
- E-1.2: Confirmatory Soil Analytical Results (July 1995 - August 1995)
- E-1.3: Soil Analytical Results (May 1997 - December 1997)
- E-1.4: Supplemental Soil Analytical Results (April 1997 - June 1999)
- E-1.5: Supplemental Soil Analytical Results (May 2003 - August 2003)

E-2: GROUNDWATER

E-3: SEDIMENT

E-4: SURFACE WATER

E-5 ECOLOGICAL

- E-5.1: Invertebrate Analytical Results
- E-5.2: Invertebrate Soil Analytical Results

E-6 ADDITIONAL DATA

- E-6.1: Toxicity Soil Analytical Results
- E-6.2: Sieve and Lead Soil Analytical Results
- E-6.3: SPLP Soil Analytical Results

E-1: SOIL

E-1.1: SCREENING SOIL ANALYTICAL RESULTS
(AUGUST 1994 - APRIL 1995)

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS001	CF15SS002	CF15SS003	CF15SS004	CF15SS005	CF15SS006
SAMPLE NUMBER	CF-15-SS001 [08/01/94]	CF-15-SS002 [08/01/94]	CF-15-SS003 [08/01/94]	CF-15-SS004 [08/01/94]	CF-15-SS005 [08/01/94]	CF-15-SS006 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	2900	200 U	200 U	200 U
BENZO(A)ANTHRACENE	520	530	6600	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	410	5300	3400	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	200 U	200 U
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	1100	1700	21000	13000	640	420
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	7100	1000	200 U	200 U
PYRENE	1500	2100	17000	10000	610	310
Inorganics (mg/kg)						
LEAD	19	22	129	234	823	502

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007	CF15SS008	CF15SS009	CF15SS010	CF15SS011	CF15SS012
SAMPLE NUMBER	CF-15-SS007 [08/01/94]	CF-15-SS008 [08/01/94]	CF-15-SS009 [08/01/94]	CF-15-SS010 [08/01/94]	CF-15-SS011 [08/01/94]	CF-15-SS012 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	230000	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	11000	410	240
BENZO(A)ANTHRACENE	50000	7500	69000	40000	890	1800
BENZO(A)PYRENE	200 U	5600	200 U	9300	870	2200
BENZO(B)FLUORANTHENE	400 U	6200	400 U	33000	850	2000
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	9200	610	890
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	18000	520	1200
CHRYSENE	56000	200 U	70000	43000	200 U	1200
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	21000	400 U	960
FLUORANTHENE	130000	21000	200000	99000	3100	4200
FLUORENE	400 U	400 U	400 U	13000	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	14000	1200	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	38000	6000	60000	28000	200 U	1100
PYRENE	180000	16000	190000	110000	3200	4400
Inorganics (mg/kg)						
LEAD	226	0	102	167	297	1240

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS013	CF15SS013	CF15SS014	CF15SS015	CF15SS016	CF15SS017
SAMPLE NUMBER	CF-15-SS013 [08/01/94]	CF-15-SS013 [08/01/94]-D	CF-15-SS014 [08/01/94]	CF-15-SS015 [08/01/94]	CF-15-SS016 [08/01/94]	CF-15-SS017 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	4800	22000	280000	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	1600	25000	200 U
BENZO(A)ANTHRACENE	200 U	200 U	1200	4000	56000	48000
BENZO(A)PYRENE	200 U	200 U	200 U	4100	51000	34000
BENZO(B)FLUORANTHENE	400 U	400 U	1000	4200	48000	41000
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	2100	400 U	29000
BENZO(K)FLUORANTHENE	200 U	200 U	410	1900	200 U	16000
CHRYSENE	200 U	200 U	970	4700	89000	13000
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	1200	400 U	19000
FLUORANTHENE	400 U	400 U	2900	14000	220000	130000
FLUORENE	400 U	400 U	460	2100	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	690	4600	88000	34000
PYRENE	200 U	200 U	3100	16000	230000	120000
Inorganics (mg/kg)						
LEAD	32		35	139	503	383

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS018	CF15SS019	CF15SS020	CF15SS021	CF15SS021	CF15SS022
SAMPLE NUMBER	CF-15-SS018 [08/01/94]	CF-15-SS019 [08/01/94]	CF-15-SS020 [08/01/94]	CF-15-SS021 [08/01/94]	CF-15-SS021 [08/01/94]-D	CF-15-SS022 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	190000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	740	200 U	200 U	200 U	200 U	200 U
BENZO(A)ANTHRACENE	2800	200 U	200 U	550	200 U	200 U
BENZO(A)PYRENE	2900	200 U	200 U	460	200 U	50000
BENZO(B)FLUORANTHENE	3000	400 U	400 U	820	400 U	44000
BENZO(G,H,I)PERYLENE	1500	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	1500	200 U	200 U	250	200 U	200 U
CHRYSENE	2900	200 U	200 U	450	200 U	97000
DIBENZO(A,H)ANTHRACENE	760	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	8700	400 U	400 U	1100	400 U	150000
FLUORENE	400 U	400 U	400 U	400 U	400 U	22000
INDENO(1,2,3-CD)PYRENE	1300	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	2500	200 U	200 U	310	200 U	45000
PYRENE	5100	200 U	200 U	1200	200 U	170000
Inorganics (mg/kg)						
LEAD	324	18	0	63		371

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS023	CF15SS024	CF15SS025	CF15SS026	CF15SS027	CF15SS028
SAMPLE NUMBER	CF-15-SS023 [08/01/94]	CF-15-SS024 [08/01/94]	CF-15-SS025 [08/01/94]	CF-15-SS026 [08/01/94]	CF-15-SS027 [08/01/94]	CF-15-SS028 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	6200	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	35000	200 U	350	200 U	200 U
BENZO(A)ANTHRACENE	25000	140000	200 U	560	200 U	200 U
BENZO(A)PYRENE	17000	17000	200 U	1900	200 U	4000
BENZO(B)FLUORANTHENE	400 U	51000	400 U	1500	400 U	4200
BENZO(G,H,I)PERYLENE	400 U	50000	400 U	1000	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	33000	200 U	780	200 U	2800
CHRYSENE	25000	120000	200 U	1800	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	15000	400 U	500	400 U	400 U
FLUORANTHENE	72000	380000	400 U	4400	480	12000
FLUORENE	400 U	400 U	400 U	570	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	47000	200 U	990	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	19000	120000	200 U	980	200 U	200 U
PYRENE	67000	280000	200 U	4200	390	14000
Inorganics (mg/kg)						
LEAD	388	607	0	82	27	328

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS029	CF15SS030	CF15SS031	CF15SS032	CF15SS033	CF15SS034
SAMPLE NUMBER	CF-15-SS029 [08/01/94]	CF-15-SS030 [08/01/94]	CF-15-SS031 [08/01/94]	CF-15-SS032 [08/01/94]	CF-15-SS033 [08/01/94]	CF-15-SS034 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	16000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	5600	200 U	200 U	880	200 U
BENZO(A)ANTHRACENE	260	19000	200 U	200 U	200 U	4500
BENZO(A)PYRENE	200 U	19000	200 U	200 U	200 U	2900
BENZO(B)FLUORANTHENE	400 U	18000	400 U	400 U	400 U	3300
BENZO(G,H,I)PERYLENE	400 U	13000	400 U	400 U	400 U	2100
BENZO(K)FLUORANTHENE	200 U	11000	200 U	200 U	200 U	1400
CHRYSENE	260	21000	200 U	200 U	200 U	4300
DIBENZO(A,H)ANTHRACENE	400 U	10000	400 U	400 U	400 U	1400
FLUORANTHENE	800	48000	400 U	400 U	670	11000
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	10000	200 U	200 U	200 U	1700
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	250	16000	200 U	200 U	200 U	3300
PYRENE	750	52000	200 U	200 U	200 U	8800
Inorganics (mg/kg)						
LEAD	561	387	0	0	571	80

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS034	CF15SS035	CF15SS036	CF15SS037	CF15SS038	CF15SS039
SAMPLE NUMBER	CF-15-SS034 [08/01/94]-D	CF-15-SS035 [08/01/94]	CF-15-SS036 [08/01/94]	CF-15-SS037 [08/01/94]	CF-15-SS038 [08/01/94]	CF-15-SS039 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	51000	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	2200	200 U	2200	200 U	200 U	200 U
BENZO(A)ANTHRACENE	8700	4000	9000	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	2600	6000	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	6700	2600	7800	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	7600	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	7400	200 U	3500	200 U	200 U	200 U
CHRYSENE	7700	4400	11000	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	6500	400 U	400 U	400 U
FLUORANTHENE	26000	13000	22000	400 U	400 U	400 U
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	5200	200 U	200 U	200 U	200 U
PYRENE	24000	13000	24000	200 U	200 U	200 U
Inorganics (mg/kg)						
LEAD		341	191	0	0	163

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS040	CF15SS041	CF15SS042	CF15SS043	CF15SS044	CF15SS045
SAMPLE NUMBER	CF-15-SS040 [08/01/94]	CF-15-SS041 [08/01/94]	CF-15-SS042 [08/01/94]	CF-15-SS043 [08/01/94]	CF-15-SS044 [08/01/94]	CF-15-SS045 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	12000	200 U	200 U	200 U
BENZO(A)ANTHRACENE	47000	6300	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	3400	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	3400	26000	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	1700	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	200 U	200 U
CHRYSENE	36000	4200	37000	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	100000	15000	97000	400 U	400 U	400 U
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	1800	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	4400	42000	200 U	200 U	200 U
PYRENE	110000	17000	100000	200 U	200 U	200 U
Inorganics (mg/kg)						
LEAD	92	269	276	0	0	

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS046	CF15SS047	CF15SS047	CF15SS048	CF15SS049	CF15SS050
SAMPLE NUMBER	CF-15-SS046 [08/01/94]	CF-15-SS047 [08/01/94]	CF-15-SS047 [08/01/94]-D	CF-15-SS048 [08/01/94]	CF-15-SS049 [08/01/94]	CF-15-SS050 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	8200
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	34000	12000	540
BENZO(A)ANTHRACENE	200 U	4700	3500	200 U	200 U	1600
BENZO(A)PYRENE	200 U	2500	200 U	74000	35000	710
BENZO(B)FLUORANTHENE	400 U	400 U	2800	77000	37000	2200
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	25000	14000	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	42000	24000	1100
CHRYSENE	200 U	5000	3700	100000	200 U	2100
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	330
FLUORANTHENE	400 U	14000	9800	240000	120000	5500
FLUORENE	400 U	22000	400 U	400 U	18000	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	22000	17000	540
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	4100	3100	100000	39000	1200
PYRENE	200 U	16000	11000	250000	130000	5400
Inorganics (mg/kg)						
LEAD	29	60		850	334	60

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS050	CF15SS051	CF15SS052	CF15SS053	CF15SS054	CF15SS055
SAMPLE NUMBER	CF-15-SS050 [08/01/94]-D	CF-15-SS051 [08/01/94]	CF-15-SS052 [08/01/94]	CF-15-SS053 [08/01/94]	CF-15-SS054 [08/01/94]	CF-15-SS055 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	14000	2000 U	2000 U	2000 U	410000	280000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	740	200 U	4200	200 U	26000	21000
BENZO(A)ANTHRACENE	2000	200 U	12000	27000	110000	71000
BENZO(A)PYRENE	780	25000	13000	200 U	17000	47000
BENZO(B)FLUORANTHENE	2600	25000	15000	21000	75000	61000
BENZO(G,H,I)PERYLENE	1200	400 U	4000	400 U	34000	28000
BENZO(K)FLUORANTHENE	1000	14000	8900	200 U	26000	24000
CHRYSENE	2700	39000	19000	25000	82000	200 U
DIBENZO(A,H)ANTHRACENE	720	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	6000	81000	34000	70000	290000	210000
FLUORENE	1200	400 U	7000	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	1100	200 U	6900	200 U	24000	26000
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	1900	24000	13000	15000	93000	77000
PYRENE	5800	97000	29000	69000	270000	190000
Inorganics (mg/kg)						
LEAD		244	434	169	579	425

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS056	CF15SS057	CF15SS058	CF15SS059	CF15SS060	CF15SS060	CF15SS060
SAMPLE NUMBER	CF-15-SS056 [08/01/94]	CF-15-SS057 [08/01/94]	CF-15-SS058 [08/01/94]	CF-15-SS059 [08/01/94]	CF15SS060	CF-15-SS060 [08/01/94]	CF-15-SS060 [08/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	5/6/1997	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)							
ACENAPHTHENE	2000 U	2000 U	2000 U	140000		2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U		4000 U	4000 U
ANTHRACENE	25000	22000	2600	200 U		37000	200 U
BENZO(A)ANTHRACENE	61000	70000	7100	200 U		120000	15000
BENZO(A)PYRENE	200 U	37000	8400	200 U		200 U	4800
BENZO(B)FLUORANTHENE	14000	12000	8700	29000		16000	22000
BENZO(G,H,I)PERYLENE	41000	34000	2900	400 U		17000	12000
BENZO(K)FLUORANTHENE	68000	17000	4500	12000		80000	8800
CHRYSENE	200 U	200 U	11000	38000		200 U	200 U
DIBENZO(A,H)ANTHRACENE	46000	30000	400 U	400 U		48000	400 U
FLUORANTHENE	38000	130000	22000	100000		250000	50000
FLUORENE	400 U	400 U	5000	400 U		400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	3400	200 U		200 U	10000
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U		2000 U	2000 U
PHENANTHRENE	67000	26000	7200	200 U		53000	14000
PYRENE	150000	73000	26000	100000		140000	44000
Inorganics (mg/kg)							
LEAD	739	275	293	431	824		

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS061	CF15SS062	CF15SS063	CF15SS064	CF15SS064	CF15SS065
SAMPLE NUMBER	CF-15-SS061 [08/01/94]	CF-15-SS062 [08/01/94]	CF-15-SS063 [08/01/94]	CF-15-SS064 [08/01/94]	CF-15-SS064 [08/01/94]-D	CF-15-SS065 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	4800	2000 U	2000 U	8500
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	18000	770	4200	6400	560
BENZO(A)ANTHRACENE	21000	66000	200 U	200 U	200 U	2400
BENZO(A)PYRENE	200 U	200 U	1400	24000	26000	2400
BENZO(B)FLUORANTHENE	16000	400 U	1700	22000	28000	3000
BENZO(G,H,I)PERYLENE	400 U	38000	600	14000	7200	400 U
BENZO(K)FLUORANTHENE	200 U	47000	760	11000	11000	1600
CHRYSENE	23000	200 U	200 U	200 U	200 U	2900
DIBENZO(A,H)ANTHRACENE	400 U	400 U	820	400 U	400 U	1800
FLUORANTHENE	52000	120000	2300	60000	74000	6300
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	12000	6800	1400
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	13000	22000	590	17000	22000	1200
PYRENE	56000	66000	2900	36000	40000	7100
Inorganics (mg/kg)						
LEAD	265	314	13	778		46

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS065	CF15SS066	CF15SS067	CF15SS068	CF15SS069	CF15SS070
SAMPLE NUMBER	CF-15-SS065 [09/01/94]-D	CF-15-SS066 [09/01/94]	CF-15-SS067 [09/01/94]	CF-15-SS068 [09/01/94]	CF-15-SS069 [09/01/94]	CF-15-SS070 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	13000	2000 U	2000 U	2500	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	27000	200 U	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	20000	530	300	200 U
BENZO(A)PYRENE	4000	200 U	60000	400	200 U	200 U
BENZO(B)FLUORANTHENE	6300	400 U	43000	650	400 U	400 U
BENZO(G,H,I)PERYLENE	15000	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	2200	200 U	52000	280	200 U	200 U
CHRYSENE	200 U	200 U	200 U	730	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	26000	400 U	400 U	400 U
FLUORANTHENE	9000	400 U	170000	1800	750	400 U
FLUORENE	400 U	400 U	31000	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	1700	200 U	29000	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	1400	200 U	57000	300	200 U	200 U
PYRENE	9200	200 U	140000	2100	980	200 U
Inorganics (mg/kg)						
LEAD		47	138	1510	2530	126

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS071	CF15SS072	CF15SS073	CF15SS074	CF15SS075	CF15SS076
SAMPLE NUMBER	CF-15-SS071 [09/01/94]	CF-15-SS072 [09/01/94]	CF-15-SS073 [09/01/94]	CF-15-SS074 [09/01/94]	CF-15-SS075 [09/01/94]	CF-15-SS076 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	41000	163000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	2900	11000
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	2000	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	10000	24000
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	12000	27000
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	7300	16000
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	8900	14000
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	400 U	400 U	21000	83000
FLUORENE	400 U	400 U	400 U	400 U	4100	14000
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	3400	10000
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2700	2000 U
PHENANTHRENE	200 U	200 U	200 U	200 U	7000	29000
PYRENE	200 U	200 U	200 U	200 U	28000	66000
Inorganics (mg/kg)						
LEAD	2860	2880	295	0	275	243

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS077	CF15SS078	CF15SS079	CF15SS080	CF15SS081	CF15SS082
SAMPLE NUMBER	CF-15-SS077 [09/01/94]	CF-15-SS078 [09/01/94]	CF-15-SS079 [09/01/94]	CF-15-SS080 [09/01/94]	CF-15-SS081 [09/01/94]	CF-15-SS082 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	3600	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)ANTHRACENE	570	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	1300	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	1700	400 U	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	1100	200 U	200 U	200 U	200 U
CHRYSENE	1000	2000	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	2500	3000	400 U	400 U	400 U	400 U
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	560	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	400	710	200 U	200 U	200 U	200 U
PYRENE	2000	4300	200 U	200 U	200 U	200 U
Inorganics (mg/kg)						
LEAD	472	24	4440	1400	1030	5470

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS083	CF15SS084	CF15SS084	CF15SS085	CF15SS086	CF15SS087
SAMPLE NUMBER	CF-15-SS083 [09/01/94]	CF-15-SS084 [09/01/94]	CF-15-SS084 [09/01/94]-D	CF-15-SS085 [09/01/94]	CF-15-SS086 [09/01/94]	CF-15-SS087 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	200 U	200 U
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	200 U	200 U	200 U
PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
Inorganics (mg/kg)						
LEAD	2680	3380		1630	3410	348

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS088	CF15SS089	CF15SS090	CF15SS091	CF15SS092	CF15SS093
SAMPLE NUMBER	CF-15-SS088 [09/01/94]	CF-15-SS089 [09/01/94]	CF-15-SS090 [09/01/94]	CF-15-SS091 [09/01/94]	CF-15-SS092 [09/01/94]	CF-15-SS093 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	14000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	200 U	650
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	510	1100
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	400 U	1100
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	200 U	200 U
CHRYSENE	200 U	200 U	200 U	200 U	880	1600
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	400 U	400 U	2100	4500
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	200 U	630	1500
PYRENE	200 U	200 U	200 U	200 U	2400	5300
Inorganics (mg/kg)						
LEAD	3180	155	773	1710	2450	3150

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS094	CF15SS094	CF15SS095	CF15SS096	CF15SS097	CF15SS098
SAMPLE NUMBER	CF-15-SS094 [09/01/94]	CF-15-SS094 [09/01/94]-D	CF-15-SS095 [09/01/94]	CF-15-SS096 [09/01/94]	CF-15-SS097 [09/01/94]	CF-15-SS098 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	6700	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	510	200 U	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	1100	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	1000	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	1200	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	640	200 U	200 U	200 U
CHRYSENE	200 U	700	1600	350	200 U	580
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	320
FLUORANTHENE	400 U	400 U	4000	610	400 U	1300
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	1700	200 U	200 U	360
PYRENE	200 U	200 U	4200	500	200 U	1700
Inorganics (mg/kg)						
LEAD	30115		3620	3600	1430	1240

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS099	CF15SS100	CF15SS101	CF15SS102	CF15SS103	CF15SS104
SAMPLE NUMBER	CF-15-SS099 [09/01/94]	CF-15-SS100 [09/01/94]	CF-15-SS101 [09/01/94]	CF-15-SS102 [09/01/94]	CF-15-SS103 [09/01/94]	CF-15-SS104 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	140000	11000	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	11000	800	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	910	200 U	200 U
BENZO(A)PYRENE	310	200 U	17000	2900	200 U	200 U
BENZO(B)FLUORANTHENE	400	400 U	21000	3300	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	8600	1300	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	13000	1900	200 U	200 U
CHRYSENE	500	200 U	200 U	3600	660	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	7100	400 U	400 U	400 U
FLUORANTHENE	9800	400 U	72000	4300	840	400 U
FLUORENE	400 U	400 U	12000	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	7400	1200	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	2400	200 U	36000	2200	630	200 U
PYRENE	800	200 U	200 U	2200	630	200 U
Inorganics (mg/kg)						
LEAD	855	1830	20	88	2170	42

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS104	CF15SS105	CF15SS106	CF15SS107	CF15SS108	CF15SS109
SAMPLE NUMBER	CF-15-SS104 [09/01/94]-D	CF-15-SS105 [09/01/94]	CF-15-SS106 [09/01/94]	CF-15-SS107 [09/01/94]	CF-15-SS108 [09/01/94]	CF-15-SS109 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	10000	15000	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	770	990	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	2200	560	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	2500	2400	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	3000	2900	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	1300	1300	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	1700	1700	200 U
CHRYSENE	200 U	200 U	200 U	3400	3400	980
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	1300	400 U
FLUORANTHENE	400 U	400 U	450	6100	6600	1900
FLUORENE	400 U	400 U	400 U	950	1300	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	1200	1100	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	2000	2800	200 U
PYRENE	200 U	200 U	1000	2000	1900	200 U
Inorganics (mg/kg)						
LEAD		57	78	73	84	246

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS110	CF15SS111	CF15SS112	CF15SS113	CF15SS114	CF15SS114
SAMPLE NUMBER	CF-15-SS110 [09/01/94]	CF-15-SS111 [09/01/94]	CF-15-SS112 [09/01/94]	CF-15-SS113 [09/01/94]	CF-15-SS114 [09/01/94]	CF-15-SS114 [09/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2300	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	3800	4000	820
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	400 U	910
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	2600	200 U	500
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	400 U	5700	9200	2200
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	200 U	200 U	500
PYRENE	200 U	200 U	200 U	8700	200 U	3200
Inorganics (mg/kg)						
LEAD	50	0	0	23	0	

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS115	CF15SS116	CF15SS117	CF15SS118	CF15SS119	CF15SS120
SAMPLE NUMBER	CF-15-SS115 [09/01/94]	CF-15-SS116 [10/01/94]	CF-15-SS117 [10/01/94]	CF-15-SS118 [10/01/94]	CF-15-SS119 [10/01/94]	CF-15-SS120 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	230000	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	14000	200 U	200 U	200 U	460	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	31000	200 U	200 U	200 U	1200	200 U
BENZO(B)FLUORANTHENE	36000	400 U	400 U	400 U	1300	400 U
BENZO(G,H,I)PERYLENE	15000	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	20000	200 U	200 U	200 U	650	200 U
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	17000	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	93000	400 U	400 U	400 U	3700	400 U
FLUORENE	19000	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	14000	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	38000	200 U	200 U	200 U	1100	200 U
PYRENE	33000	200 U	200 U	200 U	2900	200 U
Inorganics (mg/kg)						
LEAD	28	83	17	321	70	131

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS121	CF15SS122	CF15SS123	CF15SS124	CF15SS125	CF15SS125
SAMPLE NUMBER	CF-15-SS121 [10/01/94]	CF-15-SS122 [10/01/94]	CF-15-SS123 [10/01/94]	CF-15-SS124 [10/01/94]	CF-15-SS125 [10/01/94]	CF-15-SS125 [10/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	4800	200 U	620	800	200 U	1300
BENZO(A)ANTHRACENE	200 U	550	1900	2100	200 U	1800
BENZO(A)PYRENE	200 U	200 U	2700	3200	200 U	4200
BENZO(B)FLUORANTHENE	400 U	400 U	2200	4000	400 U	5000
BENZO(G,H,I)PERYLENE	14000	400 U	1700	2200	400 U	2300
BENZO(K)FLUORANTHENE	13000	200 U	1300	2300	200 U	3100
CHRYSENE	200 U	200 U	2800	3700	200 U	5400
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	49000	400 U	5400	7100	2200	10000
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	1600	2000	200 U	2200
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	14000	200 U	1300	2000	610	2800
PYRENE	39000	200 U	3800	5400	1700	6500
Inorganics (mg/kg)						
LEAD	464	88	63	80	61	

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS126	CF15SS127	CF15SS128	CF15SS129	CF15SS130	CF15SS131
SAMPLE NUMBER	CF-15-SS126 [10/01/94]	CF-15-SS127 [10/01/94]	CF-15-SS128 [10/01/94]	CF-15-SS129 [10/01/94]	CF-15-SS130 [10/01/94]	CF-15-SS131 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	15000	12000	200 U	430	1100	200 U
BENZO(A)ANTHRACENE	43000	27000	200 U	1200	3600	200 U
BENZO(A)PYRENE	200 U	36000	200 U	1700	5000	200 U
BENZO(B)FLUORANTHENE	55000	400 U	400 U	1700	5200	400 U
BENZO(G,H,I)PERYLENE	33000	18000	400 U	1000	400 U	400 U
BENZO(K)FLUORANTHENE	53000	22000	200 U	860	2800	200 U
CHRYSENE	72000	51000	200 U	1800	5700	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	140000	110000	400 U	3900	9400	400 U
FLUORENE	25000	18000	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	33000	16000	200 U	1000	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	120000	33000	200 U	910	2700	200 U
PYRENE	380000	84000	200 U	3100	13000	200 U
Inorganics (mg/kg)						
LEAD	238	19	0	66	26	226

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS132	CF15SS133	CF15SS134	CF15SS135	CF15SS135	CF15SS136
SAMPLE NUMBER	CF-15-SS132 [10/01/94]	CF-15-SS133 [10/01/94]	CF-15-SS134 [10/01/94]	CF-15-SS135 [10/01/94]	CF-15-SS135 [10/01/94]-D	CF-15-SS136 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	500	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	26000	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	730	200 U	200 U
CHRYSENE	200 U	200 U	200 U	200 U	200 U	540
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	28000	2600	400 U	1800
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	1800	200 U	1200
PYRENE	200 U	200 U	31000	2700	200 U	1100
Inorganics (mg/kg)						
LEAD	2570	23	0	42		6630

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS137	CF15SS138	CF15SS139	CF15SS140	CF15SS141	CF15SS141
SAMPLE NUMBER	CF-15-SS137 [10/01/94]	CF-15-SS138 [10/01/94]	CF-15-SS139 [10/01/94]	CF-15-SS140 [10/01/94]	CF-15-SS141 [10/01/94]	CF-15-SS141 [10/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	340000	12000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	560	61000	1600
BENZO(A)ANTHRACENE	200 U	200 U	200 U	970	120000	3400
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	65000	8700
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	140000	5700
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	29000	2700
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	46000	3900
CHRYSENE	200 U	200 U	200 U	1100	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	68000	3000
FLUORANTHENE	400 U	400 U	400 U	3600	420000	9700
FLUORENE	400 U	400 U	400 U	400 U	58000	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	40000	2300
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	2300	160000	2700
PYRENE	200 U	200 U	200 U	3500	84000	15000
Inorganics (mg/kg)						
LEAD	129	14	48	0	206	

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS142	CF15SS143	CF15SS144	CF15SS145	CF15SS146	CF15SS147
SAMPLE NUMBER	CF-15-SS142 [10/01/94]	CF-15-SS143 [10/01/94]	CF-15-SS144 [10/01/94]	CF-15-SS145 [10/01/94]	CF-15-SS146 [10/01/94]	CF-15-SS147 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	1790	3720	1440	3940	64.1	13.6

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS148	CF15SS149	CF15SS150	CF15SS151	CF15SS152	CF15SS153
SAMPLE NUMBER	CF-15-SS148 [10/01/94]	CF-15-SS149 [10/01/94]	CF-15-SS150 [10/01/94]	CF-15-SS151 [10/01/94]	CF-15-SS152 [10/01/94]	CF-15-SS153 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	12.2	8.5	4.8	2620	1140	3240

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS154	CF15SS155	CF15SS156	CF15SS157	CF15SS158	CF15SS159
SAMPLE NUMBER	CF-15-SS154 [10/01/94]	CF-15-SS155 [10/01/94]	CF-15-SS156 [10/01/94]	CF-15-SS157 [10/01/94]	CF-15-SS158 [10/01/94]	CF-15-SS159 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	554	178	79	12.9	3.3 U	4.1

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS160	CF15SS161	CF15SS161	CF15SS162	CF15SS163	CF15SS164
SAMPLE NUMBER	CF-15-SS160 [10/01/94]	CF-15-SS161 [10/01/94]	CF-15-SS161 [10/01/94]-D	CF-15-SS162 [10/01/94]	CF-15-SS163 [10/01/94]	CF-15-SS164 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	208	31	145	7	7.9	3.6

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS165	CF15SS166	CF15SS167	CF15SS168	CF15SS169	CF15SS170
SAMPLE NUMBER	CF-15-SS165 [10/01/94]	CF-15-SS166 [10/01/94]	CF-15-SS167 [10/01/94]	CF-15-SS168 [10/01/94]	CF-15-SS169 [10/01/94]	CF-15-SS170 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	2110	211	25.5	32.7	12.3	538

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS171	CF15SS171	CF15SS172	CF15SS173	CF15SS174	CF15SS175
SAMPLE NUMBER	CF-15-SS171 [10/01/94]	CF-15-SS171 [10/01/94]-D	CF-15-SS172 [10/01/94]	CF-15-SS173 [10/01/94]	CF-15-SS174 [10/01/94]	CF-15-SS175 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	1600	2100	9.8	13.5	5.2	3630

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS176	CF15SS177	CF15SS178	CF15SS179	CF15SS180	CF15SS181
SAMPLE NUMBER	CF-15-SS176 [10/01/94]	CF-15-SS177 [10/01/94]	CF-15-SS178 [10/01/94]	CF-15-SS179 [10/01/94]	CF-15-SS180 [10/01/94]	CF-15-SS181 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	4070	43.2	10.6	3.1 U	5320	4190

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS181	CF15SS182	CF15SS183	CF15SS184	CF15SS185	CF15SS186
SAMPLE NUMBER	CF-15-SS181 [10/01/94]-D	CF-15-SS182 [10/01/94]	CF-15-SS183 [10/01/94]	CF-15-SS184 [10/01/94]	CF-15-SS185 [10/01/94]	CF-15-SS186 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	4240	77.3	80	2.9	419	3410

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS187	CF15SS188	CF15SS189	CF15SS190	CF15SS191	CF15SS191
SAMPLE NUMBER	CF-15-SS187 [10/01/94]	CF-15-SS188 [10/01/94]	CF-15-SS189 [10/01/94]	CF-15-SS190 [10/01/94]	CF-15-SS191 [10/01/94]	CF-15-SS191 [10/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	2630	34.2	9.6	1000	388	45.5

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS192	CF15SS193	CF15SS194	CF15SS195	CF15SS196	CF15SS197
SAMPLE NUMBER	CF-15-SS192 [10/01/94]	CF-15-SS193 [10/01/94]	CF-15-SS194 [10/01/94]	CF-15-SS195 [10/01/94]	CF-15-SS196 [10/01/94]	CF-15-SS197 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	769	17.3	3 U	522	3280	1300

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS198	CF15SS199	CF15SS200	CF15SS201	CF15SS201	CF15SS202
SAMPLE NUMBER	CF-15-SS198 [10/01/94]	CF-15-SS199 [10/01/94]	CF-15-SS200 [10/01/94]	CF-15-SS201 [10/01/94]	CF-15-SS201 [10/01/94]-D	CF-15-SS202 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	2.8 U	4.4	186	2540	2850	5250

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS203	CF15SS204	CF15SS205	CF15SS206	CF15SS207	CF15SS208
SAMPLE NUMBER	CF-15-SS203 [10/01/94]	CF-15-SS204 [10/01/94]	CF-15-SS205 [10/01/94]	CF-15-SS206 [10/01/94]	CF-15-SS207 [10/01/94]	CF-15-SS208 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	75.3	2.8 U	1390	117	2990	23.9

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS209	CF15SS210	CF15SS211	CF15SS211	CF15SS212	CF15SS213
SAMPLE NUMBER	CF-15-SS209 [10/01/94]	CF-15-SS210 [10/01/94]	CF-15-SS211 [10/01/94]	CF-15-SS211 [10/01/94]-D	CF-15-SS212 [10/01/94]	CF-15-SS213 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE		210 U	210 U			
ACENAPHTHYLENE		210 U	210 U			
ANTHRACENE		210 U	210 U			
BENZO(A)ANTHRACENE		210 U	210 U			
BENZO(A)PYRENE		210 U	210 U			
BENZO(B)FLUORANTHENE		210 U	210 U			
BENZO(G,H,I)PERYLENE		210 U	210 U			
BENZO(K)FLUORANTHENE		210 U	210 U			
CHRYSENE		210 U	210 U			
DIBENZO(A,H)ANTHRACENE		210 U	210 U			
FLUORANTHENE		210 U	210 U			
FLUORENE		210 U	210 U			
INDENO(1,2,3-CD)PYRENE		210 U	210 U			
NAPHTHALENE		210 U	210 U			
PHENANTHRENE		210 U	210 U			
PYRENE		210 U	210 U			
Inorganics (mg/kg)						
LEAD	4	3470	2310	3270	2260	25000

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS214	CF15SS215	CF15SS216	CF15SS217	CF15SS218	CF15SS219
SAMPLE NUMBER	CF-15-SS214 [10/01/94]	CF-15-SS215 [10/01/94]	CF-15-SS216 [10/01/94]	CF-15-SS217 [10/01/94]	CF-15-SS218 [10/01/94]	CF-15-SS219 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE				240 U		
ACENAPHTHYLENE				240 U		
ANTHRACENE				240 U		
BENZO(A)ANTHRACENE				240 U		
BENZO(A)PYRENE				240 U		
BENZO(B)FLUORANTHENE				240 U		
BENZO(G,H,I)PERYLENE				240 U		
BENZO(K)FLUORANTHENE				240 U		
CHRYSENE				240 U		
DIBENZO(A,H)ANTHRACENE				240 U		
FLUORANTHENE				240 U		
FLUORENE				240 U		
INDENO(1,2,3-CD)PYRENE				240 U		
NAPHTHALENE				240 U		
PHENANTHRENE				240 U		
PYRENE				240 U		
Inorganics (mg/kg)						
LEAD	254	43.8	6.1	488	65500	1900

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS220	CF15SS221	CF15SS221	CF15SS222	CF15SS223	CF15SS224
SAMPLE NUMBER	CF-15-SS220 [10/01/94]	CF-15-SS221 [10/01/94]	CF-15-SS221 [10/01/94]-D	CF-15-SS222 [10/01/94]	CF-15-SS223 [10/01/94]	CF-15-SS224 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						220 U
ACENAPHTHYLENE						220 U
ANTHRACENE						220 U
BENZO(A)ANTHRACENE						690
BENZO(A)PYRENE						630
BENZO(B)FLUORANTHENE						890
BENZO(G,H,I)PERYLENE						390
BENZO(K)FLUORANTHENE						810
CHRYSENE						1100
DIBENZO(A,H)ANTHRACENE						220 U
FLUORANTHENE						1200
FLUORENE						220 U
INDENO(1,2,3-CD)PYRENE						220 U
NAPHTHALENE						220 U
PHENANTHRENE						340
PYRENE						1300
Inorganics (mg/kg)						
LEAD	1260	40	40	9.2	3.2	90.2

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS224	CF15SS225	CF15SS226	CF15SS227	CF15SS228	CF15SS229
SAMPLE NUMBER	CF-15-SS224 [10/01/94]-D	CF-15-SS225 [10/01/94]	CF-15-SS226 [10/01/94]	CF-15-SS227 [10/01/94]	CF-15-SS228 [10/01/94]	CF-15-SS229 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE		200 U	210 U	9900 U	200 U	210 U
ACENAPHTHYLENE		200 U	210 U	9900 U	200 U	210 U
ANTHRACENE		200 U	210 U	9900 U	200 U	210 U
BENZO(A)ANTHRACENE		200 U	930	120000	240	280
BENZO(A)PYRENE		200 U	900	96000	200 U	210 U
BENZO(B)FLUORANTHENE		200 U	1400	120000	400	460
BENZO(G,H,I)PERYLENE		200 U	990	73000	200 U	210 U
BENZO(K)FLUORANTHENE		200 U	1300	9900 U	200 U	460
CHRYSENE		250	1400	140000	250	1100
DIBENZO(A,H)ANTHRACENE		200 U	210 U	11000	200 U	210 U
FLUORANTHENE		200 U	1800	170000	200 U	260
FLUORENE		200 U	210 U	9900 U	200 U	210 U
INDENO(1,2,3-CD)PYRENE		200 U	530	44000	200 U	210 U
NAPHTHALENE		200 U	210 U	9900 U	200 U	210 U
PHENANTHRENE		200 U	530	45000	200 U	210 U
PYRENE		200 U	1800	160000	200 U	290
Inorganics (mg/kg)						
LEAD	26.4		181		5.1	866

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS210	CF15SS230	CF15SS230	CF15SS231	CF15SS232	CF15SS233	CF15SS234
SAMPLE NUMBER	CF15SS210 [12/01/94]	CF-15-SS230 [10/01/94]	CF15SS230 [03/01/95]	CF-15-SS231 [10/01/94]	CF15SS232 [03/01/95]	CF15SS233 [03/01/95]	CF15SS234 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	10/1/1994	3/1/1995	10/1/1994	3/1/1995	3/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	220 U		210 U			190 U	210 U
ACENAPHTHYLENE	220 U		210 U			190 U	210 U
ANTHRACENE	220 U		210 U			190 U	210 U
BENZO(A)ANTHRACENE	220 U		210 U			200	450
BENZO(A)PYRENE	220 U		210 U			190 U	260
BENZO(B)FLUORANTHENE	220 U		210 U			190 U	350
BENZO(G,H,I)PERYLENE	220 U		210 U			190 U	320
BENZO(K)FLUORANTHENE	220 U		210 U			190 U	300
CHRYSENE	220 U		410			290	680
DIBENZO(A,H)ANTHRACENE	220 U		210 U			190 U	210 U
FLUORANTHENE	220 U		210 U			230	310
FLUORENE	220 U		210 U			190 U	210 U
INDENO(1,2,3-CD)PYRENE	220 U		210 U			190 U	210 U
NAPHTHALENE	220 U		210 U			190 U	210 U
PHENANTHRENE	220 U		210 U			190 U	210 U
PYRENE	220 U		210 U			190 U	360
SPLP Semivolatiles (ug/L)							

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS210	CF15SS230	CF15SS230	CF15SS231	CF15SS232	CF15SS233	CF15SS234
SAMPLE NUMBER	CF15SS210 [12/01/94]	CF-15-SS230 [10/01/94]	CF15SS230 [03/01/95]	CF-15-SS231 [10/01/94]	CF15SS232 [03/01/95]	CF15SS233 [03/01/95]	CF15SS234 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	10/1/1994	3/1/1995	10/1/1994	3/1/1995	3/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD		297		17.1	67	100	144

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS234	CF15SS235	CF15SS236	CF15SS237	CF15SS238	CF15SS239	CF15SS239
SAMPLE NUMBER	CF15SS234 [01/01/95]-D	CF15SS235 [01/01/95]	CF15SS236 [01/01/95]	CF15SS237 [01/01/95]	CF15SS238 [01/01/95]	CF15SS239 [01/01/95]	CF15SS239 [01/01/95]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	210 U	2100 U	1000 U	210 U	210 U	1000 U	1000 U
ACENAPHTHYLENE	210 U	2100 U	1000 U	210 U	210 U	1000 U	1000 U
ANTHRACENE	210 U	2100 U	1000 U	210 U	210 U	1000 U	1000 U
BENZO(A)ANTHRACENE	1300	6900	5300	210 U	380	9100	3500
BENZO(A)PYRENE	1100	9300	5300	210 U	330	12000	4800
BENZO(B)FLUORANTHENE	1300	11000	5000	210 U	350	14000	5900
BENZO(G,H,I)PERYLENE	1400	5500	5400	210 U	460	9300	4100
BENZO(K)FLUORANTHENE	1300	12000	5800	210 U	280	15000	6700
CHRYSENE	4700	11000	7100	210 U	3200	14000	5900
DIBENZO(A,H)ANTHRACENE	210 U	2100 U	1500	210 U	210 U	1600	1000 U
FLUORANTHENE	1800	15000	7100	210 U	320	20000	7800
FLUORENE	210 U	2100 U	1000 U	210 U	210 U	1000 U	1000 U
INDENO(1,2,3-CD)PYRENE	560	5000	4300	210 U	210 U	7300	3100
NAPHTHALENE	270	2100 U	1000 U	210 U	210 U	1000 U	1000 U
PHENANTHRENE	610	4800	2400	210 U	210 U	5500	2400
PYRENE	1500	14000	6400	210 U	370	19000	6900
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS234	CF15SS235	CF15SS236	CF15SS237	CF15SS238	CF15SS239	CF15SS239
SAMPLE NUMBER	CF15SS234 [01/01/95]-D	CF15SS235 [01/01/95]	CF15SS236 [01/01/95]	CF15SS237 [01/01/95]	CF15SS238 [01/01/95]	CF15SS239 [01/01/95]	CF15SS239 [01/01/95]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD		488	543		29.7		

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS239	CF15SS240	CF15SS241	CF15SS242	CF15SS243	CF15SS244	CF15SS245
SAMPLE NUMBER	CF15SS239 [03/01/95]	CF15SS240 [01/01/95]	CF15SS241 [01/01/95]	CF15SS242 [01/01/95]	CF15SS243 [01/01/95]	CF15SS244 [01/01/95]	CF15SS245 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE		1000 U	210 U	230 U	250 U	210 U	220 U
ACENAPHTHYLENE		1000 U	210 U	230 U	250 U	210 U	220 U
ANTHRACENE		1000 U	210 U	230 U	250 U	210 U	220 U
BENZO(A)ANTHRACENE		4300	370	580	250 U	1200	220 U
BENZO(A)PYRENE		5700	210 U	480	250 U	1600	220 U
BENZO(B)FLUORANTHENE		6800	210 U	560	280	1800	220 U
BENZO(G,H,I)PERYLENE		4100	210 U	230 U	250 U	510	220 U
BENZO(K)FLUORANTHENE		7200	210 U	570	270	1800	220 U
CHRYSENE		6400	390	760	1300	1900	220 U
DIBENZO(A,H)ANTHRACENE		1000 U	210 U	230 U	250 U	210 U	220 U
FLUORANTHENE		9500	210 U	660	300	2700	220 U
FLUORENE		1000 U	210 U	230 U	250 U	210 U	220 U
INDENO(1,2,3-CD)PYRENE		3600	280	230 U	250 U	850	220 U
NAPHTHALENE		1000 U	210 U	230 U	250 U	210 U	220 U
PHENANTHRENE		3000	210 U	230 U	250 U	1100	220 U
PYRENE		8500	210 U	450	250 U	2300	220 U
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS239	CF15SS240	CF15SS241	CF15SS242	CF15SS243	CF15SS244	CF15SS245
SAMPLE NUMBER	CF15SS239 [03/01/95]	CF15SS240 [01/01/95]	CF15SS241 [01/01/95]	CF15SS242 [01/01/95]	CF15SS243 [01/01/95]	CF15SS244 [01/01/95]	CF15SS245 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	327					13	

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS246	CF15SS247	CF15SS248	CF15SS249	CF15SS249	CF15SS250	CF15SS251
SAMPLE NUMBER	CF15SS246 [01/01/95]	CF15SS247 [01/01/95]	CF15SS248 [01/01/95]	CF15SS249 [01/01/95]	CF15SS249 [01/01/95]-D	CF15SS250 [01/01/95]	CF15SS251 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	220 U	210 U	220 U	100000 U	21000 U	230 U	210 U
ACENAPHTHYLENE	220 U	210 U	220 U	100000 U	21000 U	230 U	210 U
ANTHRACENE	220 U	210 U	220 U	110000	21000 U	230 U	210 U
BENZO(A)ANTHRACENE	220 U	540	1300	1300000	270000	400	210 U
BENZO(A)PYRENE	220 U	530	1500	1100000	240000	320	210 U
BENZO(B)FLUORANTHENE	220 U	510	1700	1300000	280000	590	210 U
BENZO(G,H,I)PERYLENE	220 U	360	1200	820000	170000	230 U	210 U
BENZO(K)FLUORANTHENE	220 U	550	2200	1500000	290000	420	210 U
CHRYSENE	220 U	630	1800	1700000	360000	870	210 U
DIBENZO(A,H)ANTHRACENE	220 U	210 U	230	140000	29000	230 U	210 U
FLUORANTHENE	220 U	660	2600	2000000	420000	640	210 U
FLUORENE	220 U	210 U	220 U	100000 U	21000 U	230 U	210 U
INDENO(1,2,3-CD)PYRENE	220 U	330	950	560000	120000	290	210 U
NAPHTHALENE	220 U	210 U	220 U	100000 U	21000 U	230 U	210 U
PHENANTHRENE	220 U	210 U	670	600000	120000	230 U	210 U
PYRENE	220 U	650	2500	1800000	370000	600	210 U
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS246	CF15SS247	CF15SS248	CF15SS249	CF15SS249	CF15SS250	CF15SS251
SAMPLE NUMBER	CF15SS246 [01/01/95]	CF15SS247 [01/01/95]	CF15SS248 [01/01/95]	CF15SS249 [01/01/95]	CF15SS249 [01/01/95]-D	CF15SS250 [01/01/95]	CF15SS251 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD							12

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS252	CF15SS252	CF15SS253	CF15SS254	CF15SS255	CF15SS256	CF15SS257
SAMPLE NUMBER	CF15SS252 [03/01/95]	CF15SS252 [03/01/95]-D	CF15SS253 [01/01/95]	CF15SS254 [01/01/95]	CF15SS255 [01/01/95]	CF15SS256 [01/01/95]	CF15SS257 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	230 U	220 U					
ACENAPHTHYLENE	230 U	220 U					
ANTHRACENE	230 U	220 U					
BENZO(A)ANTHRACENE	230 U	220 U					
BENZO(A)PYRENE	230 U	220 U					
BENZO(B)FLUORANTHENE	230 U	220 U					
BENZO(G,H,I)PERYLENE	230 U	220 U					
BENZO(K)FLUORANTHENE	230 U	220 U					
CHRYSENE	230 U	220 U					
DIBENZO(A,H)ANTHRACENE	230 U	220 U					
FLUORANTHENE	230 U	220 U					
FLUORENE	230 U	220 U					
INDENO(1,2,3-CD)PYRENE	230 U	220 U					
NAPHTHALENE	230 U	220 U					
PHENANTHRENE	230 U	220 U					
PYRENE	230 U	220 U					
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS252	CF15SS252	CF15SS253	CF15SS254	CF15SS255	CF15SS256	CF15SS257
SAMPLE NUMBER	CF15SS252 [03/01/95]	CF15SS252 [03/01/95]-D	CF15SS253 [01/01/95]	CF15SS254 [01/01/95]	CF15SS255 [01/01/95]	CF15SS256 [01/01/95]	CF15SS257 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	843		830	1030	16	29	13

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS258	CF15SS259	CF15SS260	CF15SS261	CF15SS262	CF15SS263	CF15SS263
SAMPLE NUMBER	CF15SS258 [01/01/95]	CF15SS259 [01/01/95]	CF15SS260 [01/01/95]	CF15SS261 [01/01/95]	CF15SS262 [01/01/95]	CF15SS263 [01/01/95]	CF15SS263 [01/01/95]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	210 U	230 U	180 U	2400 U	46000 U	210 U	210 U
ACENAPHTHYLENE	210 U	230 U	180 U	2400 U	46000 U	210 U	210 U
ANTHRACENE	210 U	230 U	180 U	2400 U	74000	210 U	210 U
BENZO(A)ANTHRACENE	210 U	230	790	2400 U	420000	270	380
BENZO(A)PYRENE	210 U	230 U	500	2400 U	520000	210 U	300
BENZO(B)FLUORANTHENE	210 U	230 U	530	2400 U	520000	210 U	540
BENZO(G,H,I)PERYLENE	210 U	230 U	180 U	2400 U	360000	210 U	210 U
BENZO(K)FLUORANTHENE	210 U	230 U	490	2400 U	710000	210 U	500
CHRYSENE	210 U	230 U	840	6900	580000	320	620
DIBENZO(A,H)ANTHRACENE	210 U	230 U	180 U	2400 U	65000	210 U	210 U
FLUORANTHENE	210 U	230 U	590	2400 U	1000000	230	590
FLUORENE	210 U	230 U	180 U	2400 U	46000 U	210 U	210 U
INDENO(1,2,3-CD)PYRENE	210 U	230 U	180 U	2400 U	250000	210 U	210 U
NAPHTHALENE	210 U	230 U	180 U	2400 U	46000 U	210 U	210 U
PHENANTHRENE	210 U	230 U	180	2400 U	370000	210 U	210 U
PYRENE	210 U	230 U	630	2400 U	900000	290	450
SPLP Semivolatiles (ug/L)							

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS258	CF15SS259	CF15SS260	CF15SS261	CF15SS262	CF15SS263	CF15SS263
SAMPLE NUMBER	CF15SS258 [01/01/95]	CF15SS259 [01/01/95]	CF15SS260 [01/01/95]	CF15SS261 [01/01/95]	CF15SS262 [01/01/95]	CF15SS263 [01/01/95]	CF15SS263 [01/01/95]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD			16				

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS264	CF15SS265	CF15SS266	CF15SS267	CF15SS268	CF15SS269	CF15SS270
SAMPLE NUMBER	CF15SS264 [01/01/95]	CF15SS265 [01/01/95]	CF15SS266 [01/01/95]	CF15SS267 [01/01/95]	CF15SS268 [03/01/95]	CF15SS269 [03/01/95]	CF15SS270 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	210 U	210 U	220 U	250 U	220 U	220 U	220 U
ACENAPHTHYLENE	210 U	210 U	220 U	250 U	220 U	220 U	220 U
ANTHRACENE	210 U	210 U	220 U	250 U	220 U	220 U	220 U
BENZO(A)ANTHRACENE	210 U	220	1300	250 U	220 U	220 U	220 U
BENZO(A)PYRENE	210 U	210 U	1600	250 U	220 U	220 U	220 U
BENZO(B)FLUORANTHENE	210 U	210 U	2200	250 U	220 U	220 U	220 U
BENZO(G,H,I)PERYLENE	210 U	210 U	1600	250 U	220 U	220 U	220 U
BENZO(K)FLUORANTHENE	210 U	210 U	2300	250 U	220 U	220 U	220 U
CHRYSENE	210 U	210 U	2600	570	220 U	220 U	220 U
DIBENZO(A,H)ANTHRACENE	210 U	210 U	270	250 U	220 U	220 U	220 U
FLUORANTHENE	210 U	210 U	2800	250 U	220 U	220 U	220 U
FLUORENE	210 U	210 U	220 U	250 U	220 U	220 U	220 U
INDENO(1,2,3-CD)PYRENE	210 U	210 U	940	250 U	220 U	220 U	220 U
NAPHTHALENE	210 U	210 U	220 U	250 U	220 U	220 U	220 U
PHENANTHRENE	210 U	210 U	1100	250 U	220 U	220 U	220 U
PYRENE	210 U	210 U	2600	250 U	220 U	220 U	220 U
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS264	CF15SS265	CF15SS266	CF15SS267	CF15SS268	CF15SS269	CF15SS270
SAMPLE NUMBER	CF15SS264 [01/01/95]	CF15SS265 [01/01/95]	CF15SS266 [01/01/95]	CF15SS267 [01/01/95]	CF15SS268 [03/01/95]	CF15SS269 [03/01/95]	CF15SS270 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD		32.5	534	5170	49	36	2450

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS271	CF15SS272	CF15SS273	CF15SS274	CF15SS275	CF15SS276	CF15SS277
SAMPLE NUMBER	CF15SS271 [01/01/95]	CF15SS272 [01/01/95]	CF15SS273 [01/01/95]	CF15SS274 [01/01/95]	CF15SS275 [01/01/95]	CF15SS276 [01/01/95]	CF15SS277 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE					230 U	240 U	230 U
ACENAPHTHYLENE					230 U	240 U	230 U
ANTHRACENE					230 U	240 U	230 U
BENZO(A)ANTHRACENE					330	530	370
BENZO(A)PYRENE					230 U	570	310
BENZO(B)FLUORANTHENE					230 U	800	450
BENZO(G,H,I)PERYLENE					230 U	490	230 U
BENZO(K)FLUORANTHENE					230 U	840	490
CHRYSENE					970	3100	1100
DIBENZO(A,H)ANTHRACENE					230 U	240 U	230 U
FLUORANTHENE					230 U	890	530
FLUORENE					230 U	240 U	230 U
INDENO(1,2,3-CD)PYRENE					230 U	300	230 U
NAPHTHALENE					230 U	240 U	230 U
PHENANTHRENE					230 U	290	230 U
PYRENE					230 U	770	420
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS271	CF15SS272	CF15SS273	CF15SS274	CF15SS275	CF15SS276	CF15SS277
SAMPLE NUMBER	CF15SS271 [01/01/95]	CF15SS272 [01/01/95]	CF15SS273 [01/01/95]	CF15SS274 [01/01/95]	CF15SS275 [01/01/95]	CF15SS276 [01/01/95]	CF15SS277 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	732	13	14	13			

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS278	CF15SS279	CF15SS280	CF15SS281	CF15SS281	CF15SS282	CF15SS283
SAMPLE NUMBER	CF15SS278 [01/01/95]	CF15SS279 [01/01/95]	CF15SS280 [01/01/95]	CF15SS281 [01/01/95]	CF15SS281 [01/01/95]-D	CF15SS282 [01/01/95]	CF15SS283 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	2800 U	22000 U	200 U	230 U	230 U	220 U	210 U
ACENAPHTHYLENE	2800 U	22000 U	200 U	230 U	230 U	220 U	210 U
ANTHRACENE	2800 U	41000	380	230 U	230 U	220 U	210 U
BENZO(A)ANTHRACENE	11000	210000	2900	310	230 U	220 U	310
BENZO(A)PYRENE	15000	270000	3600	230 U	230 U	220 U	260
BENZO(B)FLUORANTHENE	18000	310000	4500	290	230 U	220 U	420
BENZO(G,H,I)PERYLENE	11000	220000	3000	230 U	230 U	220 U	210 U
BENZO(K)FLUORANTHENE	20000	350000	4300	290	230 U	220 U	460
CHRYSENE	24000	300000	4400	1100	350	2600	480
DIBENZO(A,H)ANTHRACENE	2800 U	33000	510	230 U	230 U	220 U	210 U
FLUORANTHENE	26000	560000	6400	290	230 U	220 U	350
FLUORENE	2800 U	22000 U	200 U	230 U	230 U	220 U	210 U
INDENO(1,2,3-CD)PYRENE	8400	150000	1900	230 U	230 U	220 U	210 U
NAPHTHALENE	2800 U	22000 U	200	230 U	230 U	220 U	210 U
PHENANTHRENE	8700	210000	2100	230 U	230 U	220 U	210 U
PYRENE	23000	480000	5600	280	230 U	220 U	360
SPLP Semivolatiles (ug/L)							

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS278	CF15SS279	CF15SS280	CF15SS281	CF15SS281	CF15SS282	CF15SS283
SAMPLE NUMBER	CF15SS278 [01/01/95]	CF15SS279 [01/01/95]	CF15SS280 [01/01/95]	CF15SS281 [01/01/95]	CF15SS281 [01/01/95]-D	CF15SS282 [01/01/95]	CF15SS283 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD							200

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS284	CF15SS285	CF15SS286	CF15SS287	CF15SS288	CF15SS289	CF15SS290
SAMPLE NUMBER	CF15SS284 [01/01/95]	CF15SS285 [03/01/95]	CF15SS286 [03/01/95]	CF15SS287 [03/01/95]	CF15SS288 [03/01/95]	CF15SS289 [03/01/95]	CF15SS290 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	2800 U	270 U	230 U	240 U			
ACENAPHTHYLENE	2800 U	270 U	230 U	240 U			
ANTHRACENE	2800 U	270 U	230 U	240 U			
BENZO(A)ANTHRACENE	8300	270 U	230 U	240 U			
BENZO(A)PYRENE	11000	270 U	230 U	240 U			
BENZO(B)FLUORANTHENE	11000	270 U	230 U	240 U			
BENZO(G,H,I)PERYLENE	5700	270 U	230 U	240 U			
BENZO(K)FLUORANTHENE	13000	270 U	230 U	240 U			
CHRYSENE	11000	270 U	230 U	240 U			
DIBENZO(A,H)ANTHRACENE	2800 U	270 U	230 U	240 U			
FLUORANTHENE	21000	270 U	230 U	240 U			
FLUORENE	2800 U	270 U	230 U	240 U			
INDENO(1,2,3-CD)PYRENE	2800	270 U	230 U	240 U			
NAPHTHALENE	2800 U	270 U	230 U	240 U			
PHENANTHRENE	12000	270 U	230 U	240 U			
PYRENE	19000	270 U	230 U	240 U			
SPLP Semivolatiles (ug/L)							

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS284	CF15SS285	CF15SS286	CF15SS287	CF15SS288	CF15SS289	CF15SS290
SAMPLE NUMBER	CF15SS284 [01/01/95]	CF15SS285 [03/01/95]	CF15SS286 [03/01/95]	CF15SS287 [03/01/95]	CF15SS288 [03/01/95]	CF15SS289 [03/01/95]	CF15SS290 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	3820	6810	5320	3260	1810	77	16

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS291	CF15SS292	CF15SS293	CF15SS294	CF15SS295	CF15SS296	CF15SS297
SAMPLE NUMBER	CF15SS291 [01/01/95]	CF15SS292 [01/01/95]	CF15SS293 [01/01/95]	CF15SS294 [01/01/95]	CF15SS295 [01/01/95]	CF15SS296 [01/01/95]	CF15SS297 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE		230 U	230 U	270 U	270 U	6100 U	1100 U
ACENAPHTHYLENE		230 U	230 U	270 U	270 U	6100 U	1100 U
ANTHRACENE		230 U	230 U	270 U	270 U	6100 U	1100 U
BENZO(A)ANTHRACENE		230 U	450	270 U	270 U	32000	3000
BENZO(A)PYRENE		230 U	310	380	270 U	52000	4100
BENZO(B)FLUORANTHENE		230 U	290	270 U	270 U	56000	4900
BENZO(G,H,I)PERYLENE		230 U	230 U	270 U	270 U	36000	4000
BENZO(K)FLUORANTHENE		230 U	290	270 U	270 U	65000	5300
CHRYSENE		230 U	520	1100	500	48000	4600
DIBENZO(A,H)ANTHRACENE		230 U	230 U	270 U	270 U	6600	1100 U
FLUORANTHENE		230 U	320	440	270 U	70000	6300
FLUORENE		230 U	230 U	270 U	270 U	6100 U	1100 U
INDENO(1,2,3-CD)PYRENE		230 U	230	270 U	270 U	32000	2700
NAPHTHALENE		230 U	230 U	270 U	270 U	6100 U	1100 U
PHENANTHRENE		230 U	230 U	270 U	270 U	21000	2000
PYRENE		230 U	330	350	270 U	67000	5800
SPLP Semivolatiles (ug/L)							

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS291	CF15SS292	CF15SS293	CF15SS294	CF15SS295	CF15SS296	CF15SS297
SAMPLE NUMBER	CF15SS291 [01/01/95]	CF15SS292 [01/01/95]	CF15SS293 [01/01/95]	CF15SS294 [01/01/95]	CF15SS295 [01/01/95]	CF15SS296 [01/01/95]	CF15SS297 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	0						

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS297	CF15SS298	CF15SS299	CF15SS300	CF15SS301	CF15SS302	CF15SS303
SAMPLE NUMBER	CF15SS297 [01/01/95]-D	CF15SS298 [01/01/95]	CF15SS299 [01/01/95]	CF15SS300 [01/01/95]	CF15SS301 [01/01/95]	CF15SS302 [03/01/95]	CF15SS303 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	1200 U	170 U	250 U	250 U	240 U	310 U	240 U
ACENAPHTHYLENE	1200 U	170 U	250 U	250 U	240 U	310 U	240 U
ANTHRACENE	1200 U	170 U	250 U	250 U	240 U	310 U	240 U
BENZO(A)ANTHRACENE	5100	170 U	250 U	250 U	240 U	310 U	240 U
BENZO(A)PYRENE	7000	170 U	250 U	250 U	240 U	310 U	240 U
BENZO(B)FLUORANTHENE	8300	170 U	250 U	250 U	240 U	310 U	240 U
BENZO(G,H,I)PERYLENE	6400	170 U	250 U	250 U	240 U	310 U	240 U
BENZO(K)FLUORANTHENE	9000	170 U	250 U	250 U	240 U	310 U	240 U
CHRYSENE	7800	380	250 U	560	240 U	350	250
DIBENZO(A,H)ANTHRACENE	1200 U	170 U	250 U	250 U	240 U	310 U	240 U
FLUORANTHENE	11000	170 U	250 U	250 U	240 U	310 U	240 U
FLUORENE	1200 U	170 U	250 U	250 U	240 U	310 U	240 U
INDENO(1,2,3-CD)PYRENE	4500	170 U	250 U	250 U	240 U	310 U	240 U
NAPHTHALENE	1200 U	170 U	250 U	250 U	240 U	310 U	240 U
PHENANTHRENE	3600	170 U	250 U	250 U	240 U	310 U	240 U
PYRENE	10000	170 U	250 U	250 U	240 U	310 U	240 U
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS297	CF15SS298	CF15SS299	CF15SS300	CF15SS301	CF15SS302	CF15SS303
SAMPLE NUMBER	CF15SS297 [01/01/95]-D	CF15SS298 [01/01/95]	CF15SS299 [01/01/95]	CF15SS300 [01/01/95]	CF15SS301 [01/01/95]	CF15SS302 [03/01/95]	CF15SS303 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD			13.4	1190	1780	529	927

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS304	CF15SS305	CF15SS306	CF15SS307	CF15SS308	CF15SS309	CF15SS310
SAMPLE NUMBER	CF15SS304 [03/01/95]	CF15SS305 [01/01/95]	CF15SS306 [01/01/95]	CF15SS307 [01/01/95]	CF15SS308 [01/01/95]	CF15SS309 [01/01/95]	CF15SS310 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	260 U				220 U	250 U	230 U
ACENAPHTHYLENE	260 U				220 U	250 U	230 U
ANTHRACENE	260 U				220 U	250 U	230 U
BENZO(A)ANTHRACENE	260 U				430	250 U	230 U
BENZO(A)PYRENE	260 U				220 U	250 U	230 U
BENZO(B)FLUORANTHENE	260 U				220 U	250 U	230 U
BENZO(G,H,I)PERYLENE	260 U				220 U	250 U	230 U
BENZO(K)FLUORANTHENE	260 U				220 U	250 U	230 U
CHRYSENE	310				430	640	230 U
DIBENZO(A,H)ANTHRACENE	260 U				220 U	250 U	230 U
FLUORANTHENE	260 U				220 U	250 U	230 U
FLUORENE	260 U				220 U	250 U	230 U
INDENO(1,2,3-CD)PYRENE	260 U				220 U	250 U	230 U
NAPHTHALENE	260 U				220 U	250 U	230 U
PHENANTHRENE	260 U				220 U	250 U	230 U
PYRENE	260 U				220 U	250 U	230 U
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS304	CF15SS305	CF15SS306	CF15SS307	CF15SS308	CF15SS309	CF15SS310
SAMPLE NUMBER	CF15SS304 [03/01/95]	CF15SS305 [01/01/95]	CF15SS306 [01/01/95]	CF15SS307 [01/01/95]	CF15SS308 [01/01/95]	CF15SS309 [01/01/95]	CF15SS310 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	1740	229	72	12			

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS311	CF15SS312	CF15SS313	CF15SS314	CF15SS315	CF15SS316	CF15SS317
SAMPLE NUMBER	CF15SS311 [01/01/95]	CF15SS312 [01/01/95]	CF15SS313 [01/01/95]	CF15SS314 [01/01/95]	CF15SS315 [01/01/95]	CF15SS316 [01/01/95]	CF15SS317 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	260 U	2600 U	220 U	210 U	190 U	200 U	210 U
ACENAPHTHYLENE	260 U	2600 U	220 U	210 U	190 U	200 U	210 U
ANTHRACENE	260 U	2600 U	220 U	210 U	190 U	200 U	210 U
BENZO(A)ANTHRACENE	260 U	2600 U	280	240	190 U	200 U	210 U
BENZO(A)PYRENE	260 U	2600 U	300	210 U	190 U	200 U	210 U
BENZO(B)FLUORANTHENE	260 U	2600 U	220 U	230	190 U	200 U	210 U
BENZO(G,H,I)PERYLENE	260 U	2600 U	220 U	210 U	190 U	200 U	210 U
BENZO(K)FLUORANTHENE	260 U	2600 U	220 U	210 U	190 U	200 U	210 U
CHRYSENE	580	2700	450	750	790	200 U	210 U
DIBENZO(A,H)ANTHRACENE	260 U	2600 U	220 U	210 U	190 U	200 U	210 U
FLUORANTHENE	260 U	2600 U	600	220	190 U	200 U	210 U
FLUORENE	260 U	2600 U	220 U	210 U	190 U	200 U	210 U
INDENO(1,2,3-CD)PYRENE	260 U	2600 U	300	210 U	190 U	200 U	210 U
NAPHTHALENE	260 U	2600 U	220 U	210 U	190 U	200 U	210 U
PHENANTHRENE	260 U	2600 U	240	210 U	190 U	200 U	210 U
PYRENE	260 U	2600 U	610	210 U	190 U	200 U	210 U
SPLP Semivolatiles (ug/L)							

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS311	CF15SS312	CF15SS313	CF15SS314	CF15SS315	CF15SS316	CF15SS317
SAMPLE NUMBER	CF15SS311 [01/01/95]	CF15SS312 [01/01/95]	CF15SS313 [01/01/95]	CF15SS314 [01/01/95]	CF15SS315 [01/01/95]	CF15SS316 [01/01/95]	CF15SS317 [01/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995	1/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD						22	1620

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS318	CF15SS319	CF15SS320	CF15SS321	CF15SS322	CF15SS323	CF15SS324
SAMPLE NUMBER	CF15SS318 [01/01/95]	CF15SS319 [01/01/95]	CF15SS320 [12/01/94]	CF15SS321 [12/01/94]	CF15SS322 [12/01/94]	CF15SS323 [12/01/94]	CF15SS324 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
SPLP Semivolatiles (ug/L)							

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS318	CF15SS319	CF15SS320	CF15SS321	CF15SS322	CF15SS323	CF15SS324
SAMPLE NUMBER	CF15SS318 [01/01/95]	CF15SS319 [01/01/95]	CF15SS320 [12/01/94]	CF15SS321 [12/01/94]	CF15SS322 [12/01/94]	CF15SS323 [12/01/94]	CF15SS324 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	1/1/1995	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	1140	4160	1510	206	0	226	829

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS325	CF15SS326	CF15SS327	CF15SS328	CF15SS329	CF15SS330	CF15SS331
SAMPLE NUMBER	CF15SS325 [12/01/94]	CF15SS326 [12/01/94]	CF15SS327 [12/01/94]	CF15SS328 [12/01/94]	CF15SS329 [12/01/94]	CF15SS330 [12/01/94]	CF15SS331 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
SPLP Semivolatiles (ug/L)							

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS325	CF15SS326	CF15SS327	CF15SS328	CF15SS329	CF15SS330	CF15SS331
SAMPLE NUMBER	CF15SS325 [12/01/94]	CF15SS326 [12/01/94]	CF15SS327 [12/01/94]	CF15SS328 [12/01/94]	CF15SS329 [12/01/94]	CF15SS330 [12/01/94]	CF15SS331 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	1900	1190	6.9	3.4	508	229	229

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS332	CF15SS332	CF15SS333	CF15SS334	CF15SS335	CF15SS336	CF15SS337
SAMPLE NUMBER	CF15SS332 [12/01/94]	CF15SS332 [12/01/94]-D	CF15SS333 [12/01/94]	CF15SS334 [12/01/94]	CF15SS335 [12/01/94]	CF15SS336 [12/01/94]	CF15SS337 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS332	CF15SS332	CF15SS333	CF15SS334	CF15SS335	CF15SS336	CF15SS337
SAMPLE NUMBER	CF15SS332 [12/01/94]	CF15SS332 [12/01/94]-D	CF15SS333 [12/01/94]	CF15SS334 [12/01/94]	CF15SS335 [12/01/94]	CF15SS336 [12/01/94]	CF15SS337 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	2500	1110	658	33.1	2.3 U	2 U	2.2

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS338	CF15SS339	CF15SS340	CF15SS341	CF15SS342	CF15SS342	CF15SS343
SAMPLE NUMBER	CF15SS338 [12/01/94]	CF15SS339 [12/01/94]	CF15SS340 [12/01/94]	CF15SS341 [12/01/94]	CF15SS342 [12/01/94]	CF15SS342 [12/01/94]-D	CF15SS343 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS338	CF15SS339	CF15SS340	CF15SS341	CF15SS342	CF15SS342	CF15SS343
SAMPLE NUMBER	CF15SS338 [12/01/94]	CF15SS339 [12/01/94]	CF15SS340 [12/01/94]	CF15SS341 [12/01/94]	CF15SS342 [12/01/94]	CF15SS342 [12/01/94]-D	CF15SS343 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	115	2.3 U	6	2.1 U	2.2 U	2.2 U	3.3

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS344	CF15SS345	CF15SS346	CF15SS347	CF15SS348	CF15SS348	CF15SS349
SAMPLE NUMBER	CF15SS344 [12/01/94]	CF15SS345 [12/01/94]	CF15SS346 [12/01/94]	CF15SS347 [12/01/94]	CF15SS348 [12/01/94]	CF15SS348 [12/01/94]-D	CF15SS349 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS344	CF15SS345	CF15SS346	CF15SS347	CF15SS348	CF15SS348	CF15SS349
SAMPLE NUMBER	CF15SS344 [12/01/94]	CF15SS345 [12/01/94]	CF15SS346 [12/01/94]	CF15SS347 [12/01/94]	CF15SS348 [12/01/94]	CF15SS348 [12/01/94]-D	CF15SS349 [12/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994	12/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	2.1 U	5.1	6.7	695	31.2	24.6	20

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS350	CF15SS351	CF15SS352	CF15SS353	CF15SS354	CF15SS355	CF15SS356
SAMPLE NUMBER	CF15SS350 [03/01/95]	CF15SS351 [03/01/95]	CF15SS352 [03/01/95]	CF15SS353 [03/01/95]	CF15SS354 [03/01/95]	CF15SS355 [03/01/95]	CF15SS356 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE			200 U	210 U	190 U	190 U	200 U
ACENAPHTHYLENE			200 U	210 U	190 U	190 U	200 U
ANTHRACENE			200 U	210 U	190 U	190 U	200 U
BENZO(A)ANTHRACENE			200 U	210 U	210	190 U	200 U
BENZO(A)PYRENE			200 U	210 U	190 U	190 U	200 U
BENZO(B)FLUORANTHENE			200 U	210 U	190 U	190 U	200 U
BENZO(G,H,I)PERYLENE			200 U	210 U	190 U	190 U	200 U
BENZO(K)FLUORANTHENE			200 U	210 U	190 U	190 U	200 U
CHRYSENE			310	220	190	190 U	200 U
DIBENZO(A,H)ANTHRACENE			200 U	210 U	190 U	190 U	200 U
FLUORANTHENE			200 U	210 U	200	190 U	200 U
FLUORENE			200 U	210 U	190 U	190 U	200 U
INDENO(1,2,3-CD)PYRENE			200 U	210 U	190 U	190 U	200 U
NAPHTHALENE			200 U	210 U	190 U	190 U	200 U
PHENANTHRENE			200 U	210 U	190 U	190 U	200 U
PYRENE			200 U	210 U	210	190 U	200 U
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS350	CF15SS351	CF15SS352	CF15SS353	CF15SS354	CF15SS355	CF15SS356
SAMPLE NUMBER	CF15SS350 [03/01/95]	CF15SS351 [03/01/95]	CF15SS352 [03/01/95]	CF15SS353 [03/01/95]	CF15SS354 [03/01/95]	CF15SS355 [03/01/95]	CF15SS356 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	34	12					

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS357	CF15SS357	CF15SS358	CF15SS359	CF15SS360	CF15SS361	CF15SS362
SAMPLE NUMBER	CF15SS357 [03/01/95]	CF15SS357 [03/01/95]-D	CF15SS358 [03/01/95]	CF15SS359 [03/01/95]	CF15SS360 [03/01/95]	CF15SS361 [03/01/95]	CF15SS362 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
ACENAPHTHYLENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
ANTHRACENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
BENZO(A)ANTHRACENE	280 U	340	210 U	230 U	220 U	230	510 U
BENZO(A)PYRENE	280 U	290 U	210 U	230 U	220 U	200	510 U
BENZO(B)FLUORANTHENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
BENZO(G,H,I)PERYLENE	280 U	290 U	210 U	230 U	220 U	230	510 U
BENZO(K)FLUORANTHENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
CHRYSENE	320	430	210 U	320	220 U	310	840
DIBENZO(A,H)ANTHRACENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
FLUORANTHENE	280 U	290 U	210 U	230 U	220 U	250	510 U
FLUORENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
INDENO(1,2,3-CD)PYRENE	280 U	290 U	210 U	230 U	220 U	240	510 U
NAPHTHALENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
PHENANTHRENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
PYRENE	280 U	290 U	210 U	230 U	220 U	200 U	510 U
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS357	CF15SS357	CF15SS358	CF15SS359	CF15SS360	CF15SS361	CF15SS362
SAMPLE NUMBER	CF15SS357 [03/01/95]	CF15SS357 [03/01/95]-D	CF15SS358 [03/01/95]	CF15SS359 [03/01/95]	CF15SS360 [03/01/95]	CF15SS361 [03/01/95]	CF15SS362 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS363	CF15SS364	CF15SS365	CF15SS366	CF15SS367	CF15SS368	CF15SS369
SAMPLE NUMBER	CF15SS363 [03/01/95]	CF15SS364 [03/01/95]	CF15SS365 [03/01/95]	CF15SS366 [03/01/95]	CF15SS367 [03/01/95]	CF15SS368 [03/01/95]	CF15SS369 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
ACENAPHTHYLENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
ANTHRACENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
BENZO(A)ANTHRACENE	570	470	200 U	220 U	240 U	1000	230 U
BENZO(A)PYRENE	390	260 U	200 U	220 U	240 U	230 U	230 U
BENZO(B)FLUORANTHENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
BENZO(G,H,I)PERYLENE	520	300	200 U	220 U	240 U	230 U	230 U
BENZO(K)FLUORANTHENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
CHRYSENE	1300	330	290	220 U	390	2600	350
DIBENZO(A,H)ANTHRACENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
FLUORANTHENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
FLUORENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
INDENO(1,2,3-CD)PYRENE	450	260 U	200 U	220 U	240 U	230 U	230 U
NAPHTHALENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
PHENANTHRENE	330 U	260 U	200 U	220 U	240 U	230 U	230 U
PYRENE	470	260 U	200 U	220 U	240 U	230 U	230 U
SPLP Semivolatiles (ug/L)							

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS363	CF15SS364	CF15SS365	CF15SS366	CF15SS367	CF15SS368	CF15SS369
SAMPLE NUMBER	CF15SS363 [03/01/95]	CF15SS364 [03/01/95]	CF15SS365 [03/01/95]	CF15SS366 [03/01/95]	CF15SS367 [03/01/95]	CF15SS368 [03/01/95]	CF15SS369 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS369	CF15SS370	CF15SS371	CF15SS372	CF15SS373	CF15SS374	CF15SS375
SAMPLE NUMBER	CF15SS369 [03/01/95]-D	CF15SS370 [03/01/95]	CF15SS371 [03/01/95]	CF15SS372 [03/01/95]	CF15SS373 [03/01/95]	CF15SS374 [03/01/95]	CF15SS375 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
ACENAPHTHYLENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
ANTHRACENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
BENZO(A)ANTHRACENE	230 U	200 U	210 U	370 U	210 U	200	190 U
BENZO(A)PYRENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
BENZO(B)FLUORANTHENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
BENZO(G,H,I)PERYLENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
BENZO(K)FLUORANTHENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
CHRYSENE	470	200 U	550	1300	210 U	730	190 U
DIBENZO(A,H)ANTHRACENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
FLUORANTHENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
FLUORENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
INDENO(1,2,3-CD)PYRENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
NAPHTHALENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
PHENANTHRENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
PYRENE	230 U	200 U	210 U	220 U	210 U	200 U	190 U
SPLP Semivolatiles (ug/L)							

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS369	CF15SS370	CF15SS371	CF15SS372	CF15SS373	CF15SS374	CF15SS375
SAMPLE NUMBER	CF15SS369 [03/01/95]-D	CF15SS370 [03/01/95]	CF15SS371 [03/01/95]	CF15SS372 [03/01/95]	CF15SS373 [03/01/95]	CF15SS374 [03/01/95]	CF15SS375 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD							

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS376	CF15SS377	CF15SS378	CF15SS379	CF15SS380	CF15SS381	CF15SS382
SAMPLE NUMBER	CF15SS376 [03/01/95]	CF15SS377 [03/01/95]	CF15SS378 [03/01/95]	CF15SS379 [03/01/95]	CF15SS380 [03/01/95]	CF15SS381 [03/01/95]	CF15SS382 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	220 U						
ACENAPHTHYLENE	220 U						
ANTHRACENE	220 U						
BENZO(A)ANTHRACENE	220 U						
BENZO(A)PYRENE	220 U						
BENZO(B)FLUORANTHENE	220 U						
BENZO(G,H,I)PERYLENE	220 U						
BENZO(K)FLUORANTHENE	220 U						
CHRYSENE	350						
DIBENZO(A,H)ANTHRACENE	220 U						
FLUORANTHENE	220 U						
FLUORENE	220 U						
INDENO(1,2,3-CD)PYRENE	220 U						
NAPHTHALENE	220 U						
PHENANTHRENE	220 U						
PYRENE	220 U						
SPLP Semivolatiles (ug/L)							

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS376	CF15SS377	CF15SS378	CF15SS379	CF15SS380	CF15SS381	CF15SS382
SAMPLE NUMBER	CF15SS376 [03/01/95]	CF15SS377 [03/01/95]	CF15SS378 [03/01/95]	CF15SS379 [03/01/95]	CF15SS380 [03/01/95]	CF15SS381 [03/01/95]	CF15SS382 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD		53.5	402	2390	126	93	52

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS383	CF15SS384	CF15SS384	CF15SS385	CF15SS386	CF15SS387	CF15SS388
SAMPLE NUMBER	CF15SS383 [03/01/95]	CF15SS384 [03/01/95]	CF15SS384 [03/01/95]-D	CF15SS385 [03/01/95]	CF15SS386 [03/01/95]	CF15SS387 [03/01/95]	CF15SS388 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
SPLP Semivolatiles (ug/L)							

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS383	CF15SS384	CF15SS384	CF15SS385	CF15SS386	CF15SS387	CF15SS388
SAMPLE NUMBER	CF15SS383 [03/01/95]	CF15SS384 [03/01/95]	CF15SS384 [03/01/95]-D	CF15SS385 [03/01/95]	CF15SS386 [03/01/95]	CF15SS387 [03/01/95]	CF15SS388 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	117	15.8	11.1	21.1	11.5	14.4	10.8

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS389	CF15SS389	CF15SS390	CF15SS391	CF15SS392	CF15SS393	CF15SS394
SAMPLE NUMBER	CF15SS389 [03/01/95]	CF15SS389 [03/01/95]-D	CF15SS390 [03/01/95]	CF15SS391 [03/01/95]	CF15SS392 [03/01/95]	CF15SS393 [03/01/95]	CF15SS394 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE					480 U	350 U	220 U
ACENAPHTHYLENE					480 U	350 U	220 U
ANTHRACENE					480 U	350 U	220 U
BENZO(A)ANTHRACENE					2100	1200	520
BENZO(A)PYRENE					480	350 U	220 U
BENZO(B)FLUORANTHENE					480 U	350 U	220 U
BENZO(G,H,I)PERYLENE					480 U	350 U	220 U
BENZO(K)FLUORANTHENE					480 U	350 U	220 U
CHRYSENE					3200	3300	320
DIBENZO(A,H)ANTHRACENE					480 U	350 U	220 U
FLUORANTHENE					480 U	350 U	220 U
FLUORENE					480 U	350 U	220 U
INDENO(1,2,3-CD)PYRENE					480 U	350 U	220 U
NAPHTHALENE					480 U	350 U	220 U
PHENANTHRENE					480 U	350 U	220 U
PYRENE					480 U	350 U	220 U
SPLP Semivolatiles (ug/L)							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS389	CF15SS389	CF15SS390	CF15SS391	CF15SS392	CF15SS393	CF15SS394
SAMPLE NUMBER	CF15SS389 [03/01/95]	CF15SS389 [03/01/95]-D	CF15SS390 [03/01/95]	CF15SS391 [03/01/95]	CF15SS392 [03/01/95]	CF15SS393 [03/01/95]	CF15SS394 [03/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995	3/1/1995
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD	24.8	29.5	16.1	14.7			

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS394	CF15SS395	CF15SS396	CF15SS397	CF15SS398	CF15SS399	CF15SS400
SAMPLE NUMBER	CF15SS394 [03/01/95]-D	CF15SS395 [03/01/95]	CF15SS396 [03/01/95]	CF15SS397 [04/01/95]	CF15SS398 [04/01/95]	CF15SS399 [04/01/95]-D	CF15SS400 [04/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	4/1/1995	4/1/1995	4/1/1995	4/1/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
ACENAPHTHYLENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
ANTHRACENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
BENZO(A)ANTHRACENE	220 U	310	270	540 U	750	240 U	600
BENZO(A)PYRENE	220 U	200 U	200 U	540 U	260 U	270	830
BENZO(B)FLUORANTHENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
BENZO(G,H,I)PERYLENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
BENZO(K)FLUORANTHENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
CHRYSENE	220 U	250	580	540 U	750	240 U	600
DIBENZO(A,H)ANTHRACENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
FLUORANTHENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
FLUORENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
INDENO(1,2,3-CD)PYRENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
NAPHTHALENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
PHENANTHRENE	220 U	200 U	200 U	540 U	260 U	240 U	370 U
PYRENE	220 U	200 U	200 U	540 U	260 U	240 U	390
SPLP Semivolatiles (ug/L)							

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SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS394	CF15SS395	CF15SS396	CF15SS397	CF15SS398	CF15SS399	CF15SS400
SAMPLE NUMBER	CF15SS394 [03/01/95]-D	CF15SS395 [03/01/95]	CF15SS396 [03/01/95]	CF15SS397 [04/01/95]	CF15SS398 [04/01/95]	CF15SS399 [04/01/95]-D	CF15SS400 [04/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	3/1/1995	3/1/1995	3/1/1995	4/1/1995	4/1/1995	4/1/1995	4/1/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS401	CF15SS402	CF15SS403	CF15SS404	CF15SS405	CF15SS406	CF15SS407
SAMPLE NUMBER	CF15SS401 [04/01/95]	CF15SS402 [04/01/95]	CF15SS403 [04/01/95]	CF15SS404 [04/01/95]	CF15SS405 [04/01/95]	CF15SS406 [04/01/95]	CF15SS407 [04/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/1/1995	4/1/1995	4/1/1995	4/1/1995	4/1/1995	4/1/1995	4/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
BENZENE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLOROFORM							
CIS-1,2-DICHLOROETHENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
Semivolatile Organics (ug/kg)							
1,2-DICHLOROBENZENE							
1,3-DICHLOROBENZENE							
1,4-DICHLOROBENZENE							
ACENAPHTHENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
ACENAPHTHYLENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
ANTHRACENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
BENZO(A)ANTHRACENE	630	250	460	210 U	210 U	210 U	230 U
BENZO(A)PYRENE	330	240 U	290	210 U	210 U	210 U	500
BENZO(B)FLUORANTHENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
BENZO(G,H,I)PERYLENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
BENZO(K)FLUORANTHENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
CHRYSENE	630	250	460	210 U	210 U	210 U	230 U
DIBENZO(A,H)ANTHRACENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
FLUORANTHENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
FLUORENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
INDENO(1,2,3-CD)PYRENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
NAPHTHALENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
PHENANTHRENE	260 U	240 U	250 U	210 U	210 U	210 U	230 U
PYRENE	260 U	240 U	250 U	210 U	210 U	210 U	420
SPLP Semivolatiles (ug/L)							

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS401	CF15SS402	CF15SS403	CF15SS404	CF15SS405	CF15SS406	CF15SS407
SAMPLE NUMBER	CF15SS401 [04/01/95]	CF15SS402 [04/01/95]	CF15SS403 [04/01/95]	CF15SS404 [04/01/95]	CF15SS405 [04/01/95]	CF15SS406 [04/01/95]	CF15SS407 [04/01/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/1/1995	4/1/1995	4/1/1995	4/1/1995	4/1/1995	4/1/1995	4/1/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Inorganics (mg/kg)							
LEAD							

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS408	CF15SS409	CF15SS409	CF15SSB1S	CF15SSB1S	CF15SSB1S
SAMPLE NUMBER	CF15SS408 [04/01/95]	CF15SS409 [04/01/95]	CF15SS409R [04/01/95]	CF15SSB1S0 [10/01/94]	CF15SSB1S1 [10/01/94]	CF15SSB1S3 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	1-2	3-4
SAMPLE DATE	4/1/1995	4/1/1995	4/1/1995	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)						
1,1,1-TRICHLOROETHANE				2 U	2 U	2 U
1,1,2,2-TETRACHLOROETHANE				2 U	2 U	2 U
1,1,2-TRICHLOROETHANE				2 U	2 U	2 U
1,1-DICHLOROETHANE				2 U	2 U	2 U
1,1-DICHLOROETHENE				4 U	4 U	4 U
1,2-DICHLOROETHANE				2 U	2 U	2 U
BENZENE				2 U	2 U	2 U
CARBON TETRACHLORIDE				2 U	2 U	2 U
CHLOROBENZENE				2 U	2 U	2 U
CHLOROFORM				2 U	2 U	2 U
CIS-1,2-DICHLOROETHENE				2 U	2 U	2 U
ETHYLBENZENE				2 U	2 U	2 U
METHYLENE CHLORIDE				2 U	2 U	2 U
TOLUENE				2 U	2 U	2 U
TOTAL XYLENES				6 U	6 U	6 U
TRANS-1,2-DICHLOROETHENE				2 U	2 U	2 U
Semivolatile Organics (ug/kg)						
1,2-DICHLOROBENZENE				2 U	2 U	2 U
1,3-DICHLOROBENZENE				2 U	2 U	2 U
1,4-DICHLOROBENZENE				2 U	2 U	2 U
ACENAPHTHENE	220 U	250 U		7100	4900	6600
ACENAPHTHYLENE	220 U	250 U		4000 U	4000 U	4000 U
ANTHRACENE	220 U	250 U		300	200 U	200 U
BENZO(A)ANTHRACENE	220 U	250 U		200 U	200 U	200 U
BENZO(A)PYRENE	220 U	250 U		940	940	2200
BENZO(B)FLUORANTHENE	220 U	250 U		1000	1000	2200
BENZO(G,H,I)PERYLENE	220 U	250 U		400 U	400 U	400 U
BENZO(K)FLUORANTHENE	220 U	250 U		600	590	1200
CHRYSENE	220 U	250 U		200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	220 U	250 U		400 U	400 U	400 U
FLUORANTHENE	220 U	250 U		2700	3000	4700
FLUORENE	220 U	250 U		400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	220 U	250 U		200 U	200 U	890
NAPHTHALENE	220 U	250 U		2000 U	2000 U	2000 U
PHENANTHRENE	220 U	250 U		7300	1100	1300
PYRENE	220 U	250 U		3500	3400	200 U
SPLP Semivolatiles (ug/L)						

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS408	CF15SS409	CF15SS409	CF15SSB1S	CF15SSB1S	CF15SSB1S
SAMPLE NUMBER	CF15SS408 [04/01/95]	CF15SS409 [04/01/95]	CF15SS409R [04/01/95]	CF15SSB1S0 [10/01/94]	CF15SSB1S1 [10/01/94]	CF15SSB1S3 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	1-2	3-4
SAMPLE DATE	4/1/1995	4/1/1995	4/1/1995	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
ACENAPHTHENE			5 U			
ACENAPHTHYLENE			5 U			
ANTHRACENE			5 U			
BENZO(A)ANTHRACENE			5 U			
BENZO(A)PYRENE			5 U			
BENZO(B)FLUORANTHENE			5 U			
BENZO(G,H,I)PERYLENE			5 U			
BENZO(K)FLUORANTHENE			5 U			
CHRYSENE			5 U			
DIBENZO(A,H)ANTHRACENE			5 U			
FLUORANTHENE			5 U			
FLUORENE			5 U			
INDENO(1,2,3-CD)PYRENE			5 U			
NAPHTHALENE			5 U			
PHENANTHRENE			5 U			
PYRENE			5 U			
Inorganics (mg/kg)						
LEAD						

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SSB1S	CF15SSB2S	CF15SSB2S	CF15SSB2S	CF15SSB2S	CF15SSB2S
SAMPLE NUMBER	CF15SSB1S5 [10/01/94]	CF15SSB2S0 [10/01/94]	CF15SSB2S1 [10/01/94]	CF15SSB2S1 [10/01/94]-D	CF15SSB2S3 [10/01/94]	CF15SSB2S5 [10/01/94]
DEPTH	5-6	0-1	1-2	1-2	3-4	5-6
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
Volatile Organics (ug/kg)						
1,1,1-TRICHLOROETHANE		2 U	2 U	2 U	2 U	2 U
1,1,2,2-TETRACHLOROETHANE		2 U	2 U	2 U	2 U	2 U
1,1,2-TRICHLOROETHANE		2 U	2 U	2 U	2 U	2 U
1,1-DICHLOROETHANE		2 U	2 U	2 U	2 U	2 U
1,1-DICHLOROETHENE		4 U	4 U	4 U	4 U	4 U
1,2-DICHLOROETHANE		2 U	2 U	2 U	2 U	2 U
BENZENE		2 U	2 U	2 U	2 U	2 U
CARBON TETRACHLORIDE		2 U	2 U	2 U	2 U	2 U
CHLOROBENZENE		2 U	2 U	2 U	2 U	2 U
CHLOROFORM		2 U	2 U	2 U	2 U	2 U
CIS-1,2-DICHLOROETHENE		2 U	2 U	2 U	2 U	2 U
ETHYLBENZENE		2 U	2 U	2 U	2 U	2 U
METHYLENE CHLORIDE		2 U	2 U	2 U	2 U	2 U
TOLUENE		2 U	2 U	2 U	2 U	2 U
TOTAL XYLENES		6 U	6 U	6 U	6 U	6 U
TRANS-1,2-DICHLOROETHENE		2 U	2 U	2 U	2 U	2 U
Semivolatile Organics (ug/kg)						
1,2-DICHLOROBENZENE		2 U	2 U	2 U	2 U	2 U
1,3-DICHLOROBENZENE		2 U	2 U	2 U	2 U	2 U
1,4-DICHLOROBENZENE		2 U	2 U	2 U	2 U	2 U
ACENAPHTHENE	2000 U	2000 U	2000 U	18000	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	270	200 U	200 U	9200	240	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	1200	810	1100	3500	200 U	200 U
BENZO(B)FLUORANTHENE	1500	960	1100	3900	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	2100	400 U	400 U
BENZO(K)FLUORANTHENE	960	590	660	2000	200 U	200 U
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	2600	2100	2900	400 U	1400	400 U
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	1800	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	740	820	1000	2800	730	200 U
PYRENE	3600	2700	3400	200 U	1500	200 U
SPLP Semivolatiles (ug/L)						

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SSB1S	CF15SSB2S	CF15SSB2S	CF15SSB2S	CF15SSB2S	CF15SSB2S
SAMPLE NUMBER	CF15SSB1S5 [10/01/94]	CF15SSB2S0 [10/01/94]	CF15SSB2S1 [10/01/94]	CF15SSB2S1 [10/01/94]-D	CF15SSB2S3 [10/01/94]	CF15SSB2S5 [10/01/94]
DEPTH	5-6	0-1	1-2	1-2	3-4	5-6
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD						

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SSB3S	CF15SSB3S	CF15SSB3S	CF15SSB3S	CF15SSB4S	CF15SSB4S
SAMPLE NUMBER	CF15SSB3S0 [10/01/94]	CF15SSB3S1 [10/01/94]	CF15SSB3S3 [10/01/94]	CF15SSB3S5 [10/01/94]	CF15SSB4S0 [10/01/94]	CF15SSB4S1 [10/01/94]
DEPTH	0-1	1-2	3-3	5-6	0-1	1-2
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Volatile Organics (ug/kg)						
1,1,1-TRICHLOROETHANE	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2,2-TETRACHLOROETHANE	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2-TRICHLOROETHANE	2 U	2 U	2 U	2 U	2 U	2 U
1,1-DICHLOROETHANE	2 U	2 U	2 U	2 U	2 U	2 U
1,1-DICHLOROETHENE	4 U	4 U	4 U	4 U	4 U	4 U
1,2-DICHLOROETHANE	2 U	2 U	2 U	2 U	2 U	2 U
BENZENE	2 U	2 U	2 U	2 U	2 U	2 U
CARBON TETRACHLORIDE	2 U	2 U	2 U	2 U	2 U	2 U
CHLOROBENZENE	2 U	2 U	2 U	2 U	2 U	2 U
CHLOROFORM	2 U	2 U	2 U	2 U	2 U	2 U
CIS-1,2-DICHLOROETHENE	2 U	2 U	2 U	2 U	2 U	2 U
ETHYLBENZENE	2 U	2 U	2 U	2 U	2 U	2 U
METHYLENE CHLORIDE	2 U	2 U	2 U	2 U	2 U	2 U
TOLUENE	2 U	2 U	2 U	2 U	2 U	2 U
TOTAL XYLENES	6 U	6 U	6 U	6 U	6 U	6 U
TRANS-1,2-DICHLOROETHENE	2 U	2 U	2 U	2 U	2 U	2 U
Semivolatile Organics (ug/kg)						
1,2-DICHLOROBENZENE	2 U	2 U	2 U	2 U	2 U	2 U
1,3-DICHLOROBENZENE	2 U	2 U	2 U	2 U	2 U	2 U
1,4-DICHLOROBENZENE	2 U	2 U	2 U	2 U	2 U	2 U
ACENAPHTHENE	50000	7600	2000 U	22000	5800	5400
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	3700	620	8200	1300	200 U	330
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	10000	200 U	3100	4100	840	950
BENZO(B)FLUORANTHENE	12000	1200	950	4600	1100	1300
BENZO(G,H,I)PERYLENE	5900	400 U	400 U	2100	400 U	400 U
BENZO(K)FLUORANTHENE	6900	200 U	1700	2300	520	600
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	1300	400 U	400 U
FLUORANTHENE	2900	5800	1300	13000	2600	3200
FLUORENE	400 U	400 U	1100	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	3800	200 U	200 U	2100	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	10000	1700	2300	3800	720	880
PYRENE	33000	7200	200 U	15000	3300	3800
SPLP Semivolatiles (ug/L)						

APPENDIX C-1.1

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SSB3S	CF15SSB3S	CF15SSB3S	CF15SSB3S	CF15SSB4S	CF15SSB4S
SAMPLE NUMBER	CF15SSB3S0 [10/01/94]	CF15SSB3S1 [10/01/94]	CF15SSB3S3 [10/01/94]	CF15SSB3S5 [10/01/94]	CF15SSB4S0 [10/01/94]	CF15SSB4S1 [10/01/94]
DEPTH	0-1	1-2	3-3	5-6	0-1	1-2
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD						

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SSB4S	CF15SSB4S	CF15SSB4S
SAMPLE NUMBER	CF15SSB4S1 [10/01/94]-D	CF15SSB4S3 [10/01/94]	CF15SSB4S5 [10/01/94]
DEPTH	1-2	3-3	5-6
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL
Volatile Organics (ug/kg)			
1,1,1-TRICHLOROETHANE	2 U	2 U	2 U
1,1,2,2-TETRACHLOROETHANE	2 U	2 U	2 U
1,1,2-TRICHLOROETHANE	2 U	2 U	2 U
1,1-DICHLOROETHANE	2 U	2 U	2 U
1,1-DICHLOROETHENE	4 U	4 U	4 U
1,2-DICHLOROETHANE	2 U	2 U	2 U
BENZENE	2 U	2 U	2 U
CARBON TETRACHLORIDE	2 U	2 U	2 U
CHLOROBENZENE	2 U	2 U	2 U
CHLOROFORM	2 U	2 U	2 U
CIS-1,2-DICHLOROETHENE	2 U	2 U	2 U
ETHYLBENZENE	2 U	2 U	2 U
METHYLENE CHLORIDE	2 U	2 U	2 U
TOLUENE	2 U	2 U	2 U
TOTAL XYLENES	6 U	6 U	6 U
TRANS-1,2-DICHLOROETHENE	2 U	2 U	2 U
Semivolatile Organics (ug/kg)			
1,2-DICHLOROBENZENE	2 U	2 U	2 U
1,3-DICHLOROBENZENE	2 U	2 U	2 U
1,4-DICHLOROBENZENE	2 U	2 U	2 U
ACENAPHTHENE	2000 U	6200	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U
BENZO(A)ANTHRACENE	490	200 U	200 U
BENZO(A)PYRENE	1200	1300	720
BENZO(B)FLUORANTHENE	1300	1400	980
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	710	720	200 U
CHRYSENE	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U
FLUORANTHENE	2800	3100	2200
FLUORENE	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U
PHENANTHRENE	830	870	610
PYRENE	3500	3800	2600
SPLP Semivolatiles (ug/L)			

SCREENING SOIL ANALYTIC RESULTS (AUGUST 1994 - APRIL 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SSB4S	CF15SSB4S	CF15SSB4S
SAMPLE NUMBER	CF15SSB4S1 [10/01/94]-D	CF15SSB4S3 [10/01/94]	CF15SSB4S5 [10/01/94]
DEPTH	1-2	3-3	5-6
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL
ACENAPHTHENE			
ACENAPHTHYLENE			
ANTHRACENE			
BENZO(A)ANTHRACENE			
BENZO(A)PYRENE			
BENZO(B)FLUORANTHENE			
BENZO(G,H,I)PERYLENE			
BENZO(K)FLUORANTHENE			
CHRYSENE			
DIBENZO(A,H)ANTHRACENE			
FLUORANTHENE			
FLUORENE			
INDENO(1,2,3-CD)PYRENE			
NAPHTHALENE			
PHENANTHRENE			
PYRENE			
Inorganics (mg/kg)			
LEAD			

E-1.2: CONFIRMATORY SOIL ANALYTICAL RESULTS
(JULY 1995 - AUGUST 1995)

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS001(Con)	CF15SS002 (Con)	CF15SS002 (Con)	CF15SS003 (Con)	CF15SS003 (Con)	CF15SS003 (Con)
SAMPLE NUMBER	CF15SS001 [07/18/95]	CF15SS002 [07/18/95]	CF15SS002 [07/18/95]-D	CF15SS003 [07/18/95]	CF15SS003 [07/18/95]-D	CF15SS003RE [07/18/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
Volatile Organics (ug/kg)						
1,1,1-TRICHLOROETHANE	8 U	6 U	6 U	8 U	6 U	
1,1,2,2-TETRACHLOROETHANE	8 U	6 U	6 U	8 U	6 U	
1,1,2-TRICHLOROETHANE	8 U	6 U	6 U	8 U	6 U	
1,1-DICHLOROETHANE	8 U	6 U	6 U	8 U	6 U	
1,1-DICHLOROETHENE	8 U	6 U	6 U	8 U	6 U	
1,2-DICHLOROETHANE	8 U	6 U	6 U	8 U	6 U	
1,2-DICHLOROPROPANE	8 U	6 U	6 U	8 U	6 U	
2-BUTANONE	15 U	12 U	13 U	15 U	13 U	
2-HEXANONE	15 U	12 U	13 U	15 U	13 U	
4-METHYL-2-PENTANONE	15 U	12 U	13 U	15 U	13 U	
ACETONE	15 U	12 U	13 U	15 U	13 U	
BENZENE	8 U	6 U	6 U	8 U	6 U	
BROMODICHLOROMETHANE	8 U	6 U	6 U	8 U	6 U	
BROMOFORM	8 U	6 U	6 U	8 U	6 U	
BROMOMETHANE	15 U	12 U	13 U	15 U	13 U	
CARBON DISULFIDE	8 U	6 U	6 U	8 U	6 U	
CARBON TETRACHLORIDE	8 U	6 U	6 U	8 U	6 U	
CHLOROBENZENE	8 U	6 U	6 U	8 U	6 U	
CHLORODIBROMOMETHANE	8 U	6 U	6 U	8 U	6 U	
CHLOROETHANE	15 U	12 U	13 U	15 U	13 U	
CHLOROFORM	8 U	6 U	6 U	8 U	6 U	
CHLOROMETHANE	15 U	12 U	13 U	15 U	13 U	
CIS-1,3-DICHLOROPROPENE	8 U	6 U	6 U	8 U	6 U	
ETHYLBENZENE	8 U	6 U	6 U	8 U	6 U	
METHYLENE CHLORIDE	8 U	6 U	6 U	8 U	6 U	
STYRENE	8 U	6 U	6 U	8 U	6 U	
TETRACHLOROETHENE	8 U	6 U	6 U	8 U	6 U	
TOLUENE	8 U	6 U	6 U	8 U	6 U	
TOTAL 1,2-DICHLOROETHENE	8 U	6 U	6 U	8 U	6 U	
TOTAL XYLENES	8 U	6 U	6 U	8 U	6 U	
TRANS-1,3-DICHLOROPROPENE	8 U	6 U	6 U	8 U	6 U	
TRICHLOROETHENE	8 U	6 U	6 U	8 U	6 U	
VINYL CHLORIDE	15 U	12 U	13 U	15 U	13 U	
Semivolatile Organics (ug/kg)						
1,2,4-TRICHLOROBENZENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
1,2-DICHLOROBENZENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
1,3,5-TRINITROBENZENE	250 U	250 U	250 U	2500 U	2500 U	

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS001(Con)	CF15SS002 (Con)	CF15SS002 (Con)	CF15SS003 (Con)	CF15SS003 (Con)	CF15SS003 (Con)
SAMPLE NUMBER	CF15SS001 [07/18/95]	CF15SS002 [07/18/95]	CF15SS002 [07/18/95]-D	CF15SS003 [07/18/95]	CF15SS003 [07/18/95]-D	CF15SS003RE [07/18/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
1,3-DICHLOROBENZENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
1,3-DINITROBENZENE	250 U	250 U	250 U	2500 U	2500 U	
1,4-DICHLOROBENZENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2,4,5-TRICHLOROPHENOL	1200 U	1000 U	1000 U	61000 UJ	26000 U	77000 UJ
2,4,6-TRICHLOROPHENOL	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2,4-DICHLOROPHENOL	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2,4-DIMETHYLPHENOL	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2,4-DINITROPHENOL	1200 U	1000 U	1000 U	61000 UJ	26000 U	77000 UJ
2,4-DINITROTOLUENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2,6-DINITROTOLUENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2-CHLORONAPHTHALENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2-CHLOROPHENOL	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2-METHYLNAPHTHALENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2-METHYLPHENOL	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
2-NITROANILINE	1200 U	1000 U	1000 U	61000 UJ	26000 U	77000 UJ
2-NITROPHENOL	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
3,3'-DICHLOROBENZIDINE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
3-NITROANILINE	1200 U	1000 U	1000 U	61000 UJ	26000 U	77000 UJ
4,6-DINITRO-2-METHYLPHENOL	1200 U	1000 U	1000 U	61000 UJ	26000 U	77000 UJ
4-BROMOPHENYL PHENYL ETHER	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
4-CHLORO-3-METHYLPHENOL	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
4-CHLOROANILINE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
4-CHLOROPHENYL PHENYL ETHER	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
4-METHYLPHENOL	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
4-NITROANILINE	1200 U	1000 U	1000 U	61000 UJ	26000 U	77000 UJ
4-NITROPHENOL	1200 U	1000 U	1000 U	61000 UJ	26000 U	77000 UJ
ACENAPHTHENE	500 U	410 U	420 U	4600 J	1700 J	1700 J
ACENAPHTHYLENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
ANTHRACENE	500 U	410 U	420 U	17000 J	4600 J	7100 J
BENZO(A)ANTHRACENE	500 U	410 U	420 U	80000 J	40000 J	82000 J
BENZO(A)PYRENE	500 U	410 U	420 U	72000 J	37000 J	82000 J
BENZO(B)FLUORANTHENE	500 U	410 U	420 U	100000 J	51000 J	150000 J
BENZO(G,H,I)PERYLENE	500 U	410 U	420 U	21000 J	5400 J	6000 J
BENZO(K)FLUORANTHENE	500 U	410 U	420 U	38000 J	21000 J	51000 J
BIS(2-CHLOROETHOXY)METHANE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
BIS(2-CHLOROETHYL)ETHER	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS001(Con)	CF15SS002 (Con)	CF15SS002 (Con)	CF15SS003 (Con)	CF15SS003 (Con)	CF15SS003 (Con)
SAMPLE NUMBER	CF15SS001 [07/18/95]	CF15SS002 [07/18/95]	CF15SS002 [07/18/95]-D	CF15SS003 [07/18/95]	CF15SS003 [07/18/95]-D	CF15SS003RE [07/18/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
BUTYL BENZYL PHTHALATE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
CARBAZOLE	500 U	410 U	420 U	14000 J	4000 J	4900 J
CHRYSENE	500 U	410 U	420 U	81000 J	41000 J	91000 J
DI-N-BUTYL PHTHALATE	3200	1700	1400	1700 J	760 J	31000 UJ
DI-N-OCTYL PHTHALATE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
DIBENZO(A,H)ANTHRACENE	500 U	410 U	420 U	9500 J	6000 J	24000 J
DIBENZOFURAN	500 U	410 U	420 U	2500 J	550 J	31000 UJ
DIETHYL PHTHALATE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
DIMETHYL PHTHALATE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
FLUORANTHENE	500 U	410 U	420 U	130000 J	57000 J	100000 J
FLUORENE	500 U	410 U	420 U	4400 J	900 J	31000 UJ
HEXACHLOROBENZENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
HEXACHLOROBUTADIENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
HEXACHLOROCYCLOPENTADIENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
HEXACHLOROETHANE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
INDENO(1,2,3-CD)PYRENE	500 U	410 U	420 U	24000 J	15000	60000 J
ISOPHORONE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
N-NITROSO-DI-N-PROPYLAMINE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
N-NITROSODIPHENYLAMINE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
NAPHTHALENE	500 U	410 U	420 U	3400 J	1500 J	31000 UJ
NITROBENZENE	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
PENTACHLOROPHENOL	1200 U	1000 U	1000 U	61000 UJ	26000 U	77000 UJ
PHENANTHRENE	500 U	410 U	420 U	72000 J	21000 J	34000 J
PHENOL	500 U	410 U	420 U	25000 UJ	10000 U	31000 UJ
PYRENE	500 U	410 U	420 U	90000 J	44000 J	76000 J
Pesticides/PCBs (ug/kg)						
4,4'-DDD	5.1 U	4.2 U	4.2 U	26 UJ	21 UJ	
4,4'-DDE	5.1 U	4.2 U	4.2 U	26 UJ	21 UJ	
4,4'-DDT	5.1 U	4.2 U	4.2 U	26 UJ	21 UJ	
ALDRIN	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
ALPHA-BHC	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
ALPHA-CHLORDANE	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
AROCLOR-1016	51 U	42 U	42 U	260 UJ	210 UJ	
AROCLOR-1221	100 U	83 U	84 U	510 UJ	420 UJ	
AROCLOR-1232	51 U	42 U	42 U	260 UJ	210 UJ	
AROCLOR-1242	51 U	42 U	42 U	260 UJ	210 UJ	
AROCLOR-1248	51 U	42 U	42 U	260 UJ	210 UJ	
AROCLOR-1254	51 U	42 U	42 U	260 UJ	210 UJ	

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS001(Con)	CF15SS002 (Con)	CF15SS002 (Con)	CF15SS003 (Con)	CF15SS003 (Con)	CF15SS003 (Con)
SAMPLE NUMBER	CF15SS001 [07/18/95]	CF15SS002 [07/18/95]	CF15SS002 [07/18/95]-D	CF15SS003 [07/18/95]	CF15SS003 [07/18/95]-D	CF15SS003RE [07/18/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
AROCLOR-1260	51 U	42 U	42 U	260 UJ	210 UJ	
BETA-BHC	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
DELTA-BHC	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
DIELDRIN	5.1 U	4.2 U	4.2 U	26 UJ	21 UJ	
ENDOSULFAN I	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
ENDOSULFAN II	5.1 U	4.2 U	4.2 U	26 UJ	21 UJ	
ENDOSULFAN SULFATE	5.1 U	4.2 U	4.2 U	26 UJ	21 UJ	
ENDRIN	5.1 U	4.2 U	4.2 U	26 UJ	21 UJ	
ENDRIN ALDEHYDE	5.1 U	4.2 U	4.2 U	26 UJ	21 UJ	
ENDRIN KETONE	5.1 U	4.2 U	4.2 U	26 UJ	21 UJ	
GAMMA-BHC (LINDANE)	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
GAMMA-CHLORDANE	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
HEPTACHLOR	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
HEPTACHLOR EPOXIDE	2.5 U	2.1 U	2.1 U	13 UJ	11 UJ	
METHOXYCHLOR	25 U	21 U	21 U	130 UJ	110 UJ	
TOXAPHENE	250 U	210 U	210 U	1300 UJ	1100 UJ	
Explosives (ug/kg)						
2,4,6-TRINITROTOLUENE	250 U	250 U	250 U	2500 U	2500 U	
2-AMINO-4,6-DINITROTOLUENE	250 U	250 U	250 U	2500 U	2500 U	
2-NITROTOLUENE	500 U	500 U	500 U	5000 U	5000 U	
3-NITROTOLUENE	500 U	500 U	500 U	5000 U	5000 U	
4-AMINO-2,6-DINITROTOLUENE	250 U	250 U	250 U	2500 U	2500 U	
4-NITROTOLUENE	500 U	500 U	500 U	5000 U	5000 U	
HMX	500 U	500 U	500 U	5000 U	5000 U	
RDX	500 U	500 U	500 U	5000 U	5000 U	
TETRYL	500 U	500 U	500 U	5000 U	5000 U	
Petroleum Hydrocarbons (mg/kg)						
TOTAL PETROLEUM HYDROCARBONS	54	16	13 U	130	120	
Inorganics (mg/kg)						
ALUMINUM	1190	1170	836	707	682	
ANTIMONY	5.3 U	5.1 U	0.91 U	0.81 U	1.1 U	
ARSENIC	1.4 J	1 U	0.99 U	1.2 U	1 U	
BARIUM	1.8	1.7	2.1	19.1	17	
BERYLLIUM	0.31 U	0.25 U	0.25 U	0.31 U	0.26 U	
CADMIUM	0.31 U	0.25 U	0.25 U	0.31 U	0.26 U	
CALCIUM	319 U	168 U	214 U	1520 J	700 J	
CHROMIUM	2	1.7	1.7	1.5 U	1.3 U	
COBALT	0.31 UJ	0.25 UJ	0.25 UJ	0.31 UJ	0.26 UJ	

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS001(Con)	CF15SS002 (Con)	CF15SS002 (Con)	CF15SS003 (Con)	CF15SS003 (Con)	CF15SS003 (Con)
SAMPLE NUMBER	CF15SS001 [07/18/95]	CF15SS002 [07/18/95]	CF15SS002 [07/18/95]-D	CF15SS003 [07/18/95]	CF15SS003 [07/18/95]-D	CF15SS003RE [07/18/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995	7/18/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
COPPER	0.92 U	1.3 J	0.74 U	2.5 J	0.77 U	
IRON	148	149	95.6	209	157	
LEAD	909 J	742 J	37.1 J	82.3 J	69.5 J	
MAGNESIUM	44.7 U	47.5 U	27.1 U	80.1	45.9 U	
MANGANESE	2.2 U	2.2 U	1.7 U	5.1	2.1 U	
MERCURY	0.15 U	0.13 U	0.12 U	0.15 U	0.13 U	
NICKEL	0.92 UJ	0.75 UJ	0.74 UJ	0.92 UJ	0.77 UJ	
POTASSIUM	32.2	32.5	28.4 J	39.9	28.1 J	
SELENIUM	1.2 U	1 U	0.99 U	1.2 U	1 U	
SILVER	0.31 U	0.25 U	0.25 U	0.31 U	0.26 U	
SODIUM	309 U	332 U	284 U	404 U	247 U	
THALLIUM	1.5 U	1.3 U	1.2 U	1.5 U	1.3 U	
VANADIUM	2.2	2.3	1.2 J	1.4	1.1	
ZINC	4.8 U	1.8 U	2.9 U	6 U	5.4 U	
Miscellaneous Parameters (mg/kg)						
CYANIDE	0.23 U	0.27	0.2	0.23 U	0.19 U	
TOTAL ORGANIC CARBON						

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS003 (Con)	CF15SS004 (Con)	CF15SS005 (Con)	CF15SS005 (Con)	CF15SS006 (Con)	CF15SS006 (Con)
SAMPLE NUMBER	CF15SS003RE [07/18/95]-D	CF15SS004 [07/18/95]	CF15SS005 [07/19/95]	CF15SS005RE [07/19/95]	CF15SS006 [07/27/95]	CF15SS006DL [07/27/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/19/1995	7/19/1995	7/27/1995	7/27/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)						
1,1,1-TRICHLOROETHANE		6 U	7 U		7 U	
1,1,2,2-TETRACHLOROETHANE		6 U	7 U		7 U	
1,1,2-TRICHLOROETHANE		6 U	7 U		7 U	
1,1-DICHLOROETHANE		6 U	7 U		7 U	
1,1-DICHLOROETHENE		6 U	7 U		7 U	
1,2-DICHLOROETHANE		6 U	7 U		7 U	
1,2-DICHLOROPROPANE		6 U	7 U		7 U	
2-BUTANONE		12 U	14 U		13 U	
2-HEXANONE		12 U	14 U		13 U	
4-METHYL-2-PENTANONE		12 U	14 U		13 U	
ACETONE		12 U	14 U		13 U	
BENZENE		6 U	7 U		7 U	
BROMODICHLOROMETHANE		6 U	7 U		7 U	
BROMOFORM		6 U	7 U		7 U	
BROMOMETHANE		12 U	14 U		13 U	
CARBON DISULFIDE		6 U	7 U		7 U	
CARBON TETRACHLORIDE		6 U	7 U		7 U	
CHLOROBENZENE		6 U	7 U		7 U	
CHLORODIBROMOMETHANE		6 U	7 U		7 U	
CHLOROETHANE		12 U	14 U		13 U	
CHLOROFORM		6 U	7 U		7 U	
CHLOROMETHANE		12 U	14 U		13 U	
CIS-1,3-DICHLOROPROPENE		6 U	7 U		7 U	
ETHYLBENZENE		6 U	7 U		7 U	
METHYLENE CHLORIDE		6 U	7 U		7 U	
STYRENE		6 U	7 U		7 U	
TETRACHLOROETHENE		6 U	7 U		7 U	
TOLUENE		6 U	7 U		7 U	
TOTAL 1,2-DICHLOROETHENE		6 U	7 U		7 U	
TOTAL XYLENES		6 U	7 U		7 U	
TRANS-1,3-DICHLOROPROPENE		6 U	7 U		7 U	
TRICHLOROETHENE		6 U	7 U		7 U	
VINYL CHLORIDE		12 U	14 U		13 U	
Semivolatile Organics (ug/kg)						
1,2,4-TRICHLOROBENZENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
1,2-DICHLOROBENZENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
1,3,5-TRINITROBENZENE		250 U	250 U		250 UJ	

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS003 (Con)	CF15SS004 (Con)	CF15SS005 (Con)	CF15SS005 (Con)	CF15SS006 (Con)	CF15SS006 (Con)
SAMPLE NUMBER	CF15SS003RE [07/18/95]-D	CF15SS004 [07/18/95]	CF15SS005 [07/19/95]	CF15SS005RE [07/19/95]	CF15SS006 [07/27/95]	CF15SS006DL [07/27/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/19/1995	7/19/1995	7/27/1995	7/27/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
1,3-DINITROBENZENE		250 U	250 U		250 U	
1,4-DICHLOROBENZENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2,2'-OXYBIS(1-CHLOROPROPANE)	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2,4,5-TRICHLOROPHENOL	32000 UJ	940 U	1100 U	1100 UJ	1100 U	2600 U
2,4,6-TRICHLOROPHENOL	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2,4-DICHLOROPHENOL	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2,4-DIMETHYLPHENOL	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2,4-DINITROPHENOL	32000 UJ	940 U	1100 U	1100 UJ	1100 U	2600 U
2,4-DINITROTOLUENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2,6-DINITROTOLUENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2-CHLORONAPHTHALENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2-CHLOROPHENOL	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2-METHYLNAPHTHALENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2-METHYLPHENOL	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
2-NITROANILINE	32000 UJ	940 U	1100 U	1100 UJ	1100 U	2600 U
2-NITROPHENOL	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
3,3'-DICHLOROBENZIDINE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
3-NITROANILINE	32000 UJ	940 U	1100 U	1100 UJ	1100 U	2600 U
4,6-DINITRO-2-METHYLPHENOL	32000 UJ	940 U	1100 U	1100 UJ	1100 U	2600 U
4-BROMOPHENYL PHENYL ETHER	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
4-CHLORO-3-METHYLPHENOL	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
4-CHLOROANILINE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
4-CHLOROPHENYL PHENYL ETHER	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
4-METHYLPHENOL	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
4-NITROANILINE	32000 UJ	940 U	1100 U	1100 UJ	1100 U	2600 U
4-NITROPHENOL	32000 UJ	940 U	1100 U	1100 UJ	1100 U	2600 U
ACENAPHTHENE	780 J	390 U	460 U	460 UJ	440 U	1100 U
ACENAPHTHYLENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
ANTHRACENE	2500 J	390 U	460 U	460 UJ	440 U	1100 U
BENZO(A)ANTHRACENE	13000 J	120 J	460 U	460 UJ	74 J	1100 U
BENZO(A)PYRENE	12000 J	110 J	460 U	460 UJ	92 J	1100 U
BENZO(B)FLUORANTHENE	16000 J	190 J	460 U	460 UJ	130 J	1100 U
BENZO(G,H,I)PERYLENE	5400 J	390 U	460 U	460 UJ	440 U	1100 U
BENZO(K)FLUORANTHENE	6700 J	74 J	460 U	460 UJ	440 U	1100 U
BIS(2-CHLOROETHOXY)METHANE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
BIS(2-CHLOROETHYL)ETHER	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
BIS(2-ETHYLHEXYL)PHTHALATE	1800 J	390 U	460 U	460 UJ	460	310 J

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS003 (Con)	CF15SS004 (Con)	CF15SS005 (Con)	CF15SS005 (Con)	CF15SS006 (Con)	CF15SS006 (Con)
SAMPLE NUMBER	CF15SS003RE [07/18/95]-D	CF15SS004 [07/18/95]	CF15SS005 [07/19/95]	CF15SS005RE [07/19/95]	CF15SS006 [07/27/95]	CF15SS006DL [07/27/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/19/1995	7/19/1995	7/27/1995	7/27/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	13000 UJ	390 U	460 U	460 UJ	440	340 J
CARBAZOLE	1300 J	390 U	460 U	460 UJ	440 U	1100 U
CHRYSENE	14000 J	160 J	460 U	460 UJ	82 J	1100 U
DI-N-BUTYL PHTHALATE	13000 UJ	310 J	460 U	460 UJ	6700	6600
DI-N-OCTYL PHTHALATE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
DIBENZO(A,H)ANTHRACENE	1500 J	390 U	460 U	460 UJ	440 U	1100 U
DIBENZOFURAN	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
DIETHYL PHTHALATE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
DIMETHYL PHTHALATE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
FLUORANTHENE	23000 J	180 J	460 U	460 UJ	130 J	1100 U
FLUORENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
HEXACHLOROBENZENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
HEXACHLOROBUTADIENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
HEXACHLOROCYCLOPENTADIENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
HEXACHLOROETHANE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
INDENO(1,2,3-CD)PYRENE	5000 J	49 J	460 U	460 UJ	440 U	1100 U
ISOPHORONE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
N-NITROSO-DI-N-PROPYLAMINE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
N-NITROSODIPHENYLAMINE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
NAPHTHALENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
NITROBENZENE	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
PENTACHLOROPHENOL	32000 UJ	940 U	1100 U	1100 UJ	1100 U	2600 U
PHENANTHRENE	12000 J	74 J	460 U	460 UJ	56 J	1100 U
PHENOL	13000 UJ	390 U	460 U	460 UJ	440 U	1100 U
PYRENE	16000 J	130 J	460 U	0 R	110 J	1100 U
Pesticides/PCBs (ug/kg)						
4,4'-DDD		20 U	4.6 U		4.4 U	
4,4'-DDE		20 U	4.6 U		4.4 U	
4,4'-DDT		20 U	4.6 U		4.4 U	
ALDRIN		9.8 U	2.3 U		0.21 R	
ALPHA-BHC		9.8 U	2.3 U		2.2 U	
ALPHA-CHLORDANE		9.8 U	2.3 U		2.2 U	
AROCLOR-1016		200 U	46 U		44 U	
AROCLOR-1221		390 U	92 U		89 U	
AROCLOR-1232		200 U	46 U		44 U	
AROCLOR-1242		200 U	46 U		44 U	
AROCLOR-1248		200 U	46 U		44 U	
AROCLOR-1254		200 U	46 U		44 U	

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS003 (Con)	CF15SS004 (Con)	CF15SS005 (Con)	CF15SS005 (Con)	CF15SS006 (Con)	CF15SS006 (Con)
SAMPLE NUMBER	CF15SS003RE [07/18/95]-D	CF15SS004 [07/18/95]	CF15SS005 [07/19/95]	CF15SS005RE [07/19/95]	CF15SS006 [07/27/95]	CF15SS006DL [07/27/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/19/1995	7/19/1995	7/27/1995	7/27/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260		200 U	46 U		44 U	
BETA-BHC		9.8 U	2.3 U		2.2 U	
DELTA-BHC		9.8 U	2.3 U		2.2 U	
DIELDRIN		20 U	4.6 U		4.4 U	
ENDOSULFAN I		9.8 U	2.3 U		2.2 U	
ENDOSULFAN II		20 U	0.86 J		4.4 U	
ENDOSULFAN SULFATE		20 U	4.6 U		4.4 U	
ENDRIN		20 U	4.6 U		4.4 U	
ENDRIN ALDEHYDE		20 U	4.6 U		4.4 U	
ENDRIN KETONE		20 U	0.7 U		4.4 U	
GAMMA-BHC (LINDANE)		9.8 U	2.3 U		2.2 U	
GAMMA-CHLORDANE		9.8 U	2.3 U		2.2 U	
HEPTACHLOR		9.8 U	2.3 U		2.2 U	
HEPTACHLOR EPOXIDE		9.8 U	2.3 U		2.2 U	
METHOXYCHLOR		98 U	23 U		22 U	
TOXAPHENE		980 U	230 U		220 U	
Explosives (ug/kg)						
2,4,6-TRINITROTOLUENE		250 U	250 U		250 UJ	
2-AMINO-4,6-DINITROTOLUENE		250 U	250 U		250 U	
2-NITROTOLUENE		500 U	500 U		500 UJ	
3-NITROTOLUENE		500 U	500 U		500 U	
4-AMINO-2,6-DINITROTOLUENE		250 U	250 U		250 U	
4-NITROTOLUENE		500 U	500 U		500 U	
HMX		3001	500 U		500 U	
RDX		500 U	500 U		500 UJ	
TETRYL		500 U	500 U		500 U	
Petroleum Hydrocarbons (mg/kg)						
TOTAL PETROLEUM HYDROCARBONS		69	14 U		65	
Inorganics (mg/kg)						
ALUMINUM		330	755		1250 J	
ANTIMONY		1.8 U	0.54 U		12.4	
ARSENIC		0.94 U	1.1 U		4.2 J	
BARIUM		5.8	1.9 U		1.6	
BERYLLIUM		0.24 U	0.27 U		0.27 U	
CADMIUM		0.24 U	0.27 U		0.27 U	
CALCIUM		469 U	183 U		149	
CHROMIUM		2.2	1.2 U		2	
COBALT		0.33 J	0.27 UJ		0.27 UJ	

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS003 (Con)	CF15SS004 (Con)	CF15SS005 (Con)	CF15SS005 (Con)	CF15SS006 (Con)	CF15SS006 (Con)
SAMPLE NUMBER	CF15SS003RE [07/18/95]-D	CF15SS004 [07/18/95]	CF15SS005 [07/19/95]	CF15SS005RE [07/19/95]	CF15SS006 [07/27/95]	CF15SS006DL [07/27/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/18/1995	7/18/1995	7/19/1995	7/19/1995	7/27/1995	7/27/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER		2.8	0.82 U		1.9 U	
IRON		160	150		115 J	
LEAD		123 J	8.6 J		1340	
MAGNESIUM		28.9 U	20.8 U		34.8 U	
MANGANESE		2 U	1.3 U		1	
MERCURY		0.12 U	0.13 U		0.13 U	
NICKEL		0.79 J	0.82 UJ		1.2	
POTASSIUM		30.1	34.3		24.4 U	
SELENIUM		0.94 U	1.1 U		1.1 UJ	
SILVER		0.24 U	0.27 U		0.27 U	
SODIUM		247 U	248 U		246 UJ	
THALLIUM		1.2 U	1.4 U		1.3 U	
VANADIUM		1.5	1		1.5	
ZINC		5.4 U	2.7 U		3.9 U	
Miscellaneous Parameters (mg/kg)						
CYANIDE		0.25	0.21 U		0.2 U	
TOTAL ORGANIC CARBON					13000	

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS008 (Con)	CF15SS008 (Con)
SAMPLE NUMBER	CF15SS007 [07/26/95]	CF15SS007RE [07/26/95]	CF15SB7 [07/26/95]	CF15SB7 [07/26/95]-D	CF15SB7RE [07/26/95]	CF15SS008 [07/13/95]	CF15SS008DL [07/13/95]
DEPTH	0-1	0-1	1-3	1-3	1-3	0-1	0-1
SAMPLE DATE	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/13/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE	6 U		6 U	6 U		5 U	
1,1,2,2-TETRACHLOROETHANE	6 U		6 U	6 U		5 U	
1,1,2-TRICHLOROETHANE	6 U		6 U	6 U		5 U	
1,1-DICHLOROETHANE	6 U		6 U	6 U		5 U	
1,1-DICHLOROETHENE	6 U		6 U	6 U		5 U	
1,2-DICHLOROETHANE	6 U		6 U	6 U		5 U	
1,2-DICHLOROPROPANE	6 U		6 U	6 U		5 U	
2-BUTANONE	13 U		12 U	12 U		11 U	
2-HEXANONE	13 U		12 U	12 U		11 U	
4-METHYL-2-PENTANONE	13 U		12 U	12 U		11 U	
ACETONE	13 U		12 U	12 U		6 J	
BENZENE	6 U		6 U	6 U		5 U	
BROMODICHLOROMETHANE	6 U		6 U	6 U		5 U	
BROMOFORM	6 U		6 U	6 U		5 U	
BROMOMETHANE	13 U		12 U	12 U		11 U	
CARBON DISULFIDE	6 U		6 U	6 U		5 U	
CARBON TETRACHLORIDE	6 U		6 U	6 U		5 U	
CHLOROBENZENE	6 U		6 U	6 U		5 U	
CHLORODIBROMOMETHANE	6 U		6 U	6 U		5 U	
CHLOROETHANE	13 U		12 U	12 U		11 U	
CHLOROFORM	6 U		6 U	6 U		5 U	
CHLOROMETHANE	13 U		12 U	12 U		11 U	
CIS-1,3-DICHLOROPROPENE	6 U		6 U	6 U		5 U	
ETHYLBENZENE	6 U		6 U	6 U		5 U	
METHYLENE CHLORIDE	6 U		6 U	6 U		5 U	
STYRENE	6 U		6 U	6 U		5 U	
TETRACHLOROETHENE	6 U		6 U	6 U		5 U	
TOLUENE	6 U		6 U	6 U		5 U	
TOTAL 1,2-DICHLOROETHENE	6 U		6 U	6 U		5 U	
TOTAL XYLENES	6 U		6 U	6 U		5 U	
TRANS-1,3-DICHLOROPROPENE	6 U		6 U	6 U		5 U	
TRICHLOROETHENE	6 U		6 U	6 U		5 U	
VINYL CHLORIDE	13 U		12 U	12 U		11 U	
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
1,2-DICHLOROBENZENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
1,3,5-TRINITROBENZENE	250 UJ		250 UJ	250 UJ		2500 U	

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS008 (Con)	CF15SS008 (Con)
SAMPLE NUMBER	CF15SS007 [07/26/95]	CF15SS007RE [07/26/95]	CF15SB7 [07/26/95]	CF15SB7 [07/26/95]-D	CF15SB7RE [07/26/95]	CF15SS008 [07/13/95]	CF15SS008DL [07/13/95]
DEPTH	0-1	0-1	1-3	1-3	1-3	0-1	0-1
SAMPLE DATE	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/13/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
1,3-DINITROBENZENE	250 U		250 U	250 U		2500 U	
1,4-DICHLOROBENZENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
2,2'-OXYBIS(1-CHLOROPROPANE)	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
2,4,5-TRICHLOROPHENOL	210000 UJ	160000 UJ	32000 U	20000 U	30000 UJ	180000 UJ	
2,4,6-TRICHLOROPHENOL	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
2,4-DICHLOROPHENOL	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
2,4-DIMETHYLPHENOL	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
2,4-DINITROPHENOL	210000 UJ	160000 UJ	32000 U	20000 U	30000 UJ	180000 UJ	
2,4-DINITROTOLUENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 U	72000 UJ	
2,6-DINITROTOLUENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
2-CHLORONAPHTHALENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
2-CHLOROPHENOL	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
2-METHYLNAPHTHALENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	3700 J	
2-METHYLPHENOL	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
2-NITROANILINE	210000 UJ	160000 UJ	32000 U	20000 U	30000 UJ	180000 UJ	
2-NITROPHENOL	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
3,3'-DICHLOROBENZIDINE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
3-NITROANILINE	210000 UJ	160000 UJ	32000 U	20000 U	30000 UJ	180000 UJ	
4,6-DINITRO-2-METHYLPHENOL	210000 UJ	160000 UJ	32000 U	20000 U	30000 U	180000 UJ	
4-BROMOPHENYL PHENYL ETHER	85000 UJ	64000 UJ	13000 U	8100 U	12000 U	72000 UJ	
4-CHLORO-3-METHYLPHENOL	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
4-CHLOROANILINE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
4-CHLOROPHENYL PHENYL ETHER	85000 UJ	64000 UJ	13000 U	8100 U	12000 U	72000 UJ	
4-METHYLPHENOL	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
4-NITROANILINE	210000 UJ	160000 UJ	32000 U	20000 U	30000 U	180000 UJ	
4-NITROPHENOL	210000 UJ	160000 UJ	32000 U	20000 U	30000 U	180000 UJ	
ACENAPHTHENE	11000 J	9200 J	1200 J	1500 J	1900 J	13000 J	
ACENAPHTHYLENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
ANTHRACENE	42000 J	35000 J	5500 J	5300 J	1500 J	54000 J	
BENZO(A)ANTHRACENE	270000 J	250000 J	32000	36000	16000 J	280000 J	
BENZO(A)PYRENE	260000 J	260000 J	30000	35000	17000 J	250000 J	
BENZO(B)FLUORANTHENE	370000 J	370000 J	41000	53000	25000 J	370000 J	
BENZO(G,H,I)PERYLENE	120000 J	42000 J	14000	11000	2800 J	85000 J	
BENZO(K)FLUORANTHENE	140000 J	130000 J	17000	24000	11000 J	140000 J	
BIS(2-CHLOROETHOXY)METHANE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
BIS(2-CHLOROETHYL)ETHER	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
BIS(2-ETHYLHEXYL)PHTHALATE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS008 (Con)	CF15SS008 (Con)
SAMPLE NUMBER	CF15SS007 [07/26/95]	CF15SS007RE [07/26/95]	CF15SB7 [07/26/95]	CF15SB7 [07/26/95]-D	CF15SB7RE [07/26/95]	CF15SS008 [07/13/95]	CF15SS008DL [07/13/95]
DEPTH	0-1	0-1	1-3	1-3	1-3	0-1	0-1
SAMPLE DATE	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/13/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
CARBAZOLE	33000 J	29000 J	4000 J	4600 J	1200 J	43000 J	
CHRYSENE	320000 J	280000 J	35000	40000	19000 J	320000 J	
DI-N-BUTYL PHTHALATE	85000 UJ	64000 UJ	4200 J	5700 J	12000 UJ	72000 UJ	
DI-N-OCTYL PHTHALATE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
DIBENZO(A,H)ANTHRACENE	42000 J	41000 J	4500 J	3900 J	2300 J	45000 J	
DIBENZOFURAN	85000 UJ	3400 J	13000 U	460 J	12000 U	8000 J	
DIETHYL PHTHALATE	85000 UJ	64000 UJ	13000 U	8100 U	12000 U	72000 UJ	
DIMETHYL PHTHALATE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
FLUORANTHENE	490000 J	440000 J	58000	63000	25000 J	510000 J	
FLUORENE	4900 J	4000 J	710 J	700 J	12000 U	9000 J	
HEXACHLOROBENZENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 U	72000 UJ	
HEXACHLOROBUTADIENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
HEXACHLOROCYCLOPENTADIENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
HEXACHLOROETHANE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
INDENO(1,2,3-CD)PYRENE	120000 J	120000 J	14000	11000	6900 J	130000 J	
ISOPHORONE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
N-NITROSO-DI-N-PROPYLAMINE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
N-NITROSODIPHENYLAMINE	85000 UJ	64000 UJ	13000 U	8100 U	12000 U	72000 UJ	
NAPHTHALENE	7300 J	6400 J	1100 J	860 J	12000 UJ	9700 J	
NITROBENZENE	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
PENTACHLOROPHENOL	210000 UJ	160000 UJ	32000 U	20000 U	30000 U	180000 UJ	
PHENANTHRENE	210000 J	170000 J	27000	26000	8300 J	270000 J	
PHENOL	85000 UJ	64000 UJ	13000 U	8100 U	12000 UJ	72000 UJ	
PYRENE	390000 J	340000 J	49000	51000	25000 J	400000 J	
Pesticides/PCBs (ug/kg)							
4,4'-DDD	22 UJ		20 UJ	20 UJ		360 UJ	3700 UJ
4,4'-DDE	22 UJ		20 UJ	20 UJ		360 UJ	3700 UJ
4,4'-DDT	22 UJ		20 UJ	20 UJ		360 UJ	3700 UJ
ALDRIN	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
ALPHA-BHC	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
ALPHA-CHLORDANE	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
AROCLOR-1016	220 UJ		200 UJ	200 UJ		3600 UJ	37000 UJ
AROCLOR-1221	430 UJ		400 UJ	410 UJ		7300 UJ	73000 UJ
AROCLOR-1232	220 UJ		200 UJ	200 UJ		3600 UJ	37000 UJ
AROCLOR-1242	220 UJ		200 UJ	200 UJ		3600 UJ	37000 UJ
AROCLOR-1248	220 UJ		200 UJ	200 UJ		3600 UJ	37000 UJ
AROCLOR-1254	220 UJ		200 UJ	200 UJ		3600 UJ	37000 UJ

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS008 (Con)	CF15SS008 (Con)
SAMPLE NUMBER	CF15SS007 [07/26/95]	CF15SS007RE [07/26/95]	CF15SB7 [07/26/95]	CF15SB7 [07/26/95]-D	CF15SB7RE [07/26/95]	CF15SS008 [07/13/95]	CF15SS008DL [07/13/95]
DEPTH	0-1	0-1	1-3	1-3	1-3	0-1	0-1
SAMPLE DATE	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/13/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
AROCLOR-1260	220 UJ		200 UJ	200 UJ		3600 UJ	37000 UJ
BETA-BHC	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
DELTA-BHC	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
DIELDRIN	24 R		20 UJ	20 UJ		360 UJ	3700 UJ
ENDOSULFAN I	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
ENDOSULFAN II	22 UJ		20 UJ	20 UJ		360 UJ	3700 UJ
ENDOSULFAN SULFATE	22 UJ		20 UJ	20 UJ		360 UJ	3700 UJ
ENDRIN	22 UJ		20 UJ	20 UJ		360 UJ	3700 UJ
ENDRIN ALDEHYDE	22 UJ		20 UJ	20 UJ		360 UJ	3700 UJ
ENDRIN KETONE	22 UJ		20 UJ	20 UJ		360 UJ	3700 UJ
GAMMA-BHC (LINDANE)	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
GAMMA-CHLORDANE	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
HEPTACHLOR	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
HEPTACHLOR EPOXIDE	11 UJ		10 UJ	10 UJ		180 UJ	1800 UJ
METHOXYCHLOR	110 UJ		100 UJ	100 UJ		1800 UJ	18000 UJ
TOXAPHENE	1100 UJ		1000 UJ	1000 UJ		18000 UJ	180000 UJ
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE	250 UJ		250 UJ	250 UJ		2500 U	
2-AMINO-4,6-DINITROTOLUENE	250 U		250 U	250 U		2500 U	
2-NITROTOLUENE	500 UJ		500 UJ	500 UJ		5000 U	
3-NITROTOLUENE	5000 U		500 U	500 U		5080	
4-AMINO-2,6-DINITROTOLUENE	250 U		250 U	250 U		2500 U	
4-NITROTOLUENE	5000 U		500 U	500 U		5000 U	
HMX	500 U		500 U	500 U		5000 U	
RDX	500 UJ		500 UJ	500 UJ		5000 U	
TETRYL	5000 U		500 U	500 U		5000 U	
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS	300		21	24		130	
Inorganics (mg/kg)							
ALUMINUM	415 J		1170	1270		337	
ANTIMONY	1.4 J		0.49 U	0.49 U		9.7	
ARSENIC	2.6 J		0.98 UJ	0.98 UJ		5.4	
BARIUM	42		10	8.5		62.1	
BERYLLIUM	0.26 U		0.24 U	0.25 U		0.22 U	
CADMIUM	0.78		0.24 U	0.25 U		0.52	
CALCIUM	9350		677	581		3670 J	
CHROMIUM	1.5 U		1.5 U	1.9		1 U	
COBALT	0.27 J		0.24 UJ	0.25 UJ		0.34	

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS007 (Con)	CF15SS008 (Con)	CF15SS008 (Con)
SAMPLE NUMBER	CF15SS007 [07/26/95]	CF15SS007RE [07/26/95]	CF15SB7 [07/26/95]	CF15SB7 [07/26/95]-D	CF15SB7RE [07/26/95]	CF15SS008 [07/13/95]	CF15SS008DL [07/13/95]
DEPTH	0-1	0-1	1-3	1-3	1-3	0-1	0-1
SAMPLE DATE	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/26/1995	7/13/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
COPPER	3.7 U		2.2 U	2.6 U		2.1	
IRON	721 J		180 J	218 J		327	
LEAD	205		18.9	20.9		614	
MAGNESIUM	203		29 U	35.1 U		104 U	
MANGANESE	30.9		1.4	1.6		17.5	
MERCURY	0.13 U		0.12 U	0.12 U		0.12 U	
NICKEL	1.3		1.3	1.4		0.65 U	
POTASSIUM	23.9		22.4 U	22.6 U		24.7 J	
SELENIUM	1 UJ		0.98 UJ	0.98 UJ		0.87 U	
SILVER	0.26 U		0.24 U	0.25 U		0.22 U	
SODIUM	225 UJ		158 UJ	135 UJ		123 U	
THALLIUM	1.3 U		1.2 U	1.2 U		1.1 U	
VANADIUM	0.97		0.88	1.2		0.78	
ZINC	32.6		3.9 U	3.4 U		39.1 U	
Miscellaneous Parameters (mg/kg)							
CYANIDE	0.21 U		0.18 U	0.22 U		0.18 U	
TOTAL ORGANIC CARBON	8300		2700	1600			

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)
SAMPLE NUMBER	CF15SS008RE [07/13/95]	CF15SB8 [07/13/95]	CF15SB8DL [07/13/95]	CF15SS009 [07/11/95]	CF15SS009DL [07/11/95]	CF15SS009RE [07/11/95]	CF15SB9 [07/11/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	1-3
SAMPLE DATE	7/13/1995	7/13/1995	7/13/1995	7/11/1995	7/11/1995	7/11/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE		6 U		5 U			6 U
1,1,2,2-TETRACHLOROETHANE		6 U		5 U			6 U
1,1,2-TRICHLOROETHANE		6 U		5 U			6 U
1,1-DICHLOROETHANE		6 U		5 U			6 U
1,1-DICHLOROETHENE		6 U		5 U			6 U
1,2-DICHLOROETHANE		6 U		5 U			6 U
1,2-DICHLOROPROPANE		6 U		5 U			6 U
2-BUTANONE		12 U		11 U			12 U
2-HEXANONE		12 U		11 U			11 U
4-METHYL-2-PENTANONE		12 U		11 U			11 U
ACETONE		12 U		11 U			13
BENZENE		6 U		5 U			6 U
BROMODICHLOROMETHANE		6 U		5 U			6 U
BROMOFORM		6 U		5 U			6 U
BROMOMETHANE		12 U		11 U			12 U
CARBON DISULFIDE		6 U		5 U			6 U
CARBON TETRACHLORIDE		6 U		5 U			6 U
CHLOROBENZENE		6 U		5 U			6 U
CHLORODIBROMOMETHANE		6 U		5 U			6 U
CHLOROETHANE		12 U		11 U			12 U
CHLOROFORM		6 U		5 U			6 U
CHLOROMETHANE		12 U		11 U			12 U
CIS-1,3-DICHLOROPROPENE		6 U		5 U			6 U
ETHYLBENZENE		6 U		5 U			6 U
METHYLENE CHLORIDE		6 U		5 U			6 U
STYRENE		6 U		5 U			6 U
TETRACHLOROETHENE		6 U		5 U			6 U
TOLUENE		6 U		5 U			6 U
TOTAL 1,2-DICHLOROETHENE		6 U		5 U			6 U
TOTAL XYLENES		3 J		5 U			3 J
TRANS-1,3-DICHLOROPROPENE		6 U		5 U			6 U
TRICHLOROETHENE		6 U		5 U			6 U
VINYL CHLORIDE		12 U		11 U			12 U
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
1,2-DICHLOROBENZENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
1,3,5-TRINITROBENZENE		2500 U		2500 U			250 U

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)
SAMPLE NUMBER	CF15SS008RE [07/13/95]	CF15SB8 [07/13/95]	CF15SB8DL [07/13/95]	CF15SS009 [07/11/95]	CF15SS009DL [07/11/95]	CF15SS009RE [07/11/95]	CF15SB9 [07/11/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	1-3
SAMPLE DATE	7/13/1995	7/13/1995	7/13/1995	7/11/1995	7/11/1995	7/11/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
1,3-DINITROBENZENE		2500 U		2500 U			250 U
1,4-DICHLOROBENZENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2,2'-OXYBIS(1-CHLOROPROPANE)	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2,4,5-TRICHLOROPHENOL	180000 UJ	19000 U		110000 UJ		54000000 UJ	930 U
2,4,6-TRICHLOROPHENOL	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2,4-DICHLOROPHENOL	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2,4-DIMETHYLPHENOL	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2,4-DINITROPHENOL	180000 UJ	19000 U		110000 UJ		54000000 UJ	930 U
2,4-DINITROTOLUENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2,6-DINITROTOLUENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2-CHLORONAPHTHALENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2-CHLOROPHENOL	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2-METHYLNAPHTHALENE	73000 U	7800 U		45000 UJ		22000000 UJ	110 J
2-METHYLPHENOL	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
2-NITROANILINE	180000 UJ	19000 U		110000 UJ		54000000 UJ	930 U
2-NITROPHENOL	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
3,3'-DICHLOROBENZIDINE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
3-NITROANILINE	180000 UJ	19000 U		110000 UJ		54000000 UJ	930 U
4,6-DINITRO-2-METHYLPHENOL	180000 UJ	19000 U		110000 UJ		54000000 UJ	930 U
4-BROMOPHENYL PHENYL ETHER	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
4-CHLORO-3-METHYLPHENOL	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
4-CHLOROANILINE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
4-CHLOROPHENYL PHENYL ETHER	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
4-METHYLPHENOL	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
4-NITROANILINE	180000 UJ	19000 U		110000 UJ		54000000 UJ	930 U
4-NITROPHENOL	180000 UJ	19000 U		110000 UJ		54000000 UJ	930 U
ACENAPHTHENE	6000 J	930 J		7700 J		2600000 J	350 J
ACENAPHTHYLENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
ANTHRACENE	39000 J	2800 J		27000 J		10000000 J	680
BENZO(A)ANTHRACENE	210000 J	24000		180000 J		93000000 J	10000 J
BENZO(A)PYRENE	220000 J	29000		190000 J		110000000 J	9000 J
BENZO(B)FLUORANTHENE	330000 J	41000		290000 J		150000000 J	16000 J
BENZO(G,H,I)PERYLENE	120000 J	6000 J		83000 J		57000000 J	2800
BENZO(K)FLUORANTHENE	120000 J	16000		90000 J		55000000 J	4800 J
BIS(2-CHLOROETHOXY)METHANE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
BIS(2-CHLOROETHYL)ETHER	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
BIS(2-ETHYLHEXYL)PHTHALATE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)
SAMPLE NUMBER	CF15SS008RE [07/13/95]	CF15SB8 [07/13/95]	CF15SB8DL [07/13/95]	CF15SS009 [07/11/95]	CF15SS009DL [07/11/95]	CF15SS009RE [07/11/95]	CF15SB9 [07/11/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	1-3
SAMPLE DATE	7/13/1995	7/13/1995	7/13/1995	7/11/1995	7/11/1995	7/11/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
CARBAZOLE	29000 J	1900 J		20000 J		8400000 J	870
CHRYSENE	240000 J	30000		200000 J		100000000 J	9600 J
DI-N-BUTYL PHTHALATE	73000 UJ	7800 U		45000 UJ		22000000 UJ	2800
DI-N-OCTYL PHTHALATE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
DIBENZO(A,H)ANTHRACENE	37000 J	5200 J		30000 J		19000000 J	380 U
DIBENZOFURAN	4300 J	7800 U		3800 J		1100000 J	85 J
DIETHYL PHTHALATE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
DIMETHYL PHTHALATE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
FLUORANTHENE	460000 J	35000		310000 J		160000000 J	12000 J
FLUORENE	5000 J	7800 U		4000 J		22000000 UJ	110 J
HEXACHLOROBENZENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
HEXACHLOROBUTADIENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
HEXACHLOROCYCLOPENTADIENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
HEXACHLOROETHANE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
INDENO(1,2,3-CD)PYRENE	100000 J	13000		81000 J		51000000 J	2900
ISOPHORONE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
N-NITROSO-DI-N-PROPYLAMINE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
N-NITROSODIPHENYLAMINE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
NAPHTHALENE	6000 J	560 J		7000 J		2000000 J	320 J
NITROBENZENE	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
PENTACHLOROPHENOL	180000 UJ	19000 U		110000 UJ		54000000 UJ	930 U
PHENANTHRENE	210000 J	14000		140000 J		53000000 J	2900
PHENOL	73000 UJ	7800 U		45000 UJ		22000000 UJ	380 U
PYRENE	240000 J	28000		210000 J		99000000 J	230 J
Pesticides/PCBs (ug/kg)							
4,4'-DDD		39 U	390 U	360 UJ	3600 UJ		39 U
4,4'-DDE		39 U	390 U	360 UJ	3600 UJ		39 U
4,4'-DDT		39 U	390 U	360 UJ	3600 UJ		39 U
ALDRIN		20 U	200 U	180 UJ	1800 UJ		19 U
ALPHA-BHC		20 U	200 U	180 UJ	1800 UJ		19 U
ALPHA-CHLORDANE		20 U	200 U	180 UJ	1800 UJ		19 U
AROCLOR-1016		390 U	3900 U	3600 UJ	36000 UJ		390 U
AROCLOR-1221		780 U	7800 U	7200 UJ	72000 UJ		780 U
AROCLOR-1232		390 U	3900 U	3600 UJ	36000 UJ		390 U
AROCLOR-1242		390 U	3900 U	3600 UJ	36000 UJ		390 U
AROCLOR-1248		390 U	3900 U	3600 UJ	36000 UJ		390 U
AROCLOR-1254		390 U	3900 U	3600 UJ	36000 UJ		390 U

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)
SAMPLE NUMBER	CF15SS008RE [07/13/95]	CF15SB8 [07/13/95]	CF15SB8DL [07/13/95]	CF15SS009 [07/11/95]	CF15SS009DL [07/11/95]	CF15SS009RE [07/11/95]	CF15SB9 [07/11/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	1-3
SAMPLE DATE	7/13/1995	7/13/1995	7/13/1995	7/11/1995	7/11/1995	7/11/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260		390 U	3900 U	3600 UJ	36000 UJ		390 U
BETA-BHC		20 U	200 U	180 UJ	1800 UJ		19 U
DELTA-BHC		20 U	200 U	180 UJ	1800 UJ		19 U
DIELDRIN		39 U	390 U	360 UJ	3600 UJ		39 U
ENDOSULFAN I		20 U	200 U	180 UJ	1800 UJ		19 U
ENDOSULFAN II		39 U	390 U	360 UJ	3600 UJ		39 U
ENDOSULFAN SULFATE		39 U	390 U	360 UJ	3600 UJ		39 U
ENDRIN		39 U	390 U	360 UJ	3600 UJ		39 U
ENDRIN ALDEHYDE		39 U	390 U	360 UJ	3600 UJ		39 U
ENDRIN KETONE		39 U	390 U	360 UJ	3600 UJ		39 U
GAMMA-BHC (LINDANE)		20 U	200 U	180 UJ	1800 UJ		19 U
GAMMA-CHLORDANE		2 R	200 U	180 UJ	1800 UJ		19 U
HEPTACHLOR		20 U	200 U	180 UJ	1800 UJ		19 U
HEPTACHLOR EPOXIDE		20 U	200 U	180 UJ	1800 UJ		19 U
METHOXYCHLOR		200 U	2000 U	1800 UJ	18000 UJ		190 U
TOXAPHENE		2000 U	20000 U	18000 UJ	180000 UJ		1900 U
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE		2500 U		2500 U			250 U
2-AMINO-4,6-DINITROTOLUENE		2500 U		2500 U			250 U
2-NITROTOLUENE		5000 U		5000 U			500 U
3-NITROTOLUENE		5000 U		5000 U			500 U
4-AMINO-2,6-DINITROTOLUENE		2500 U		2500 U			250 U
4-NITROTOLUENE		5000 U		5000 U			500 U
HMX		5000 U		5000 U			500 U
RDX		5000 U		5000 U			500 U
TETRYL		5000 U		5000 U			500 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS		44		450			12
Inorganics (mg/kg)							
ALUMINUM		1520		1180			1710
ANTIMONY		4.2		3.9			1.6 J
ARSENIC		0.93 U		3.8			0.92 U
BARIUM		15.4		107			3
BERYLLIUM		0.23 U		0.22 U			0.23 U
CADMIUM		0.23 U		0.92			0.23 U
CALCIUM		1600 J		8500 J			404 J
CHROMIUM		1.8 U		2.4 U			1.6 U
COBALT		0.23 U		0.22 U			0.23 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS008 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)
SAMPLE NUMBER	CF15SS008RE [07/13/95]	CF15SB8 [07/13/95]	CF15SB8DL [07/13/95]	CF15SS009 [07/11/95]	CF15SS009DL [07/11/95]	CF15SS009RE [07/11/95]	CF15SB9 [07/11/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	1-3
SAMPLE DATE	7/13/1995	7/13/1995	7/13/1995	7/11/1995	7/11/1995	7/11/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER		0.7 U		21.2			0.69 U
IRON		148		982			170
LEAD		27.8		407			3.7
MAGNESIUM		52.7 U		390			33.6 U
MANGANESE		3		32.2			2.1
MERCURY		0.12 U		0.21			0.11 U
NICKEL		0.7 U		1.3			0.73
POTASSIUM		21.3 U		28.4			21.2 U
SELENIUM		0.93 U		0.87 U			0.92 U
SILVER		0.23 U		0.62			0.23 U
SODIUM		150 U		171 U			194 U
THALLIUM		1.2 U		1.1 U			1.2 U
VANADIUM		1.2		1.2			1.4
ZINC		3.7 U		119 U			2.3 U
Miscellaneous Parameters (mg/kg)							
CYANIDE		0.19 U		0.14 U			0.15 U
TOTAL ORGANIC CARBON							

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS009 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)
SAMPLE NUMBER	CF15SB9DL [07/11/95]	CF15SS010 [07/12/95]	CF15SS010 [07/12/95]-D	CF15SS010DL [07/12/95]	CF15SS010DL [07/12/95]-D	CF15SB10 [07/12/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
Volatile Organics (ug/kg)						
1,1,1-TRICHLOROETHANE		6 U	6 U			6 U
1,1,2,2-TETRACHLOROETHANE		6 U	6 U			6 U
1,1,2-TRICHLOROETHANE		6 U	6 U			6 U
1,1-DICHLOROETHANE		6 U	6 U			6 U
1,1-DICHLOROETHENE		6 U	6 U			6 U
1,2-DICHLOROETHANE		6 U	6 U			6 U
1,2-DICHLOROPROPANE		6 U	6 U			6 U
2-BUTANONE		11 U	11 U			12 U
2-HEXANONE		11 U	11 U			12 U
4-METHYL-2-PENTANONE		11 U	11 U			12 U
ACETONE		11 U	11 U			9 J
BENZENE		6 U	6 U			6 U
BROMODICHLOROMETHANE		6 U	6 U			6 U
BROMOFORM		6 U	6 U			6 U
BROMOMETHANE		11 U	11 U			12 U
CARBON DISULFIDE		6 U	6 U			6 U
CARBON TETRACHLORIDE		6 U	6 U			6 U
CHLOROBENZENE		6 U	6 U			6 U
CHLORODIBROMOMETHANE		6 U	6 U			6 U
CHLOROETHANE		11 U	11 U			12 U
CHLOROFORM		6 U	6 U			6 U
CHLOROMETHANE		11 U	11 U			12 U
CIS-1,3-DICHLOROPROPENE		6 U	6 U			6 U
ETHYLBENZENE		6 U	6 U			6 U
METHYLENE CHLORIDE		6 U	6 U			6 U
STYRENE		6 U	6 U			6 U
TETRACHLOROETHENE		6 U	6 U			6 U
TOLUENE		6 U	6 U			6 U
TOTAL 1,2-DICHLOROETHENE		6 U	6 U			6 U
TOTAL XYLENES		6 U	6 U			6 U
TRANS-1,3-DICHLOROPROPENE		6 U	6 U			6 U
TRICHLOROETHENE		6 U	6 U			6 U
VINYL CHLORIDE		11 U	11 U			12 U
Semivolatile Organics (ug/kg)						
1,2,4-TRICHLOROBENZENE	2600 U	3700 U	3600 U			400 U
1,2-DICHLOROBENZENE	2600 U	3700 U	3600 U			400 U
1,3,5-TRINITROBENZENE		250 U	250 U			250 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS009 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)
SAMPLE NUMBER	CF15SB9DL [07/11/95]	CF15SS010 [07/12/95]	CF15SS010 [07/12/95]-D	CF15SS010DL [07/12/95]	CF15SS010DL [07/12/95]-D	CF15SB10 [07/12/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
1,3-DICHLOROBENZENE	2600 U	3700 U	3600 U			400 U
1,3-DINITROBENZENE		250 U	250 U			250 U
1,4-DICHLOROBENZENE	2600 U	3700 U	3600 U			400 U
2,2'-OXYBIS(1-CHLOROPROPANE)	2600 U	3700 U	3600 U			400 U
2,4,5-TRICHLOROPHENOL	6200 U	9100 U	8800 U			960 U
2,4,6-TRICHLOROPHENOL	2600 U	3700 U	3600 U			400 U
2,4-DICHLOROPHENOL	2600 U	3700 U	3600 U			400 U
2,4-DIMETHYLPHENOL	2600 U	3700 U	3600 U			400 U
2,4-DINITROPHENOL	6200 U	9100 U	8800 U			960 U
2,4-DINITROTOLUENE	2600 U	3700 U	3600 U			400 U
2,6-DINITROTOLUENE	2600 U	3700 U	3600 U			400 U
2-CHLORONAPHTHALENE	2600 U	3700 U	3600 U			400 U
2-CHLOROPHENOL	2600 U	3700 U	3600 U			400 U
2-METHYLNAPHTHALENE	2600 U	3700 U	3600 U			400 U
2-METHYLPHENOL	2600 U	3700 U	3600 U			400 U
2-NITROANILINE	6200 U	9100 U	8800 U			960 U
2-NITROPHENOL	2600 U	3700 U	3600 U			400 U
3,3'-DICHLOROBENZIDINE	2600 U	3700 U	3600 U			400 U
3-NITROANILINE	6200 U	9100 U	8800 U			960 U
4,6-DINITRO-2-METHYLPHENOL	6200 U	9100 U	8800 U			960 U
4-BROMOPHENYL PHENYL ETHER	2600 U	3700 U	3600 U			400 U
4-CHLORO-3-METHYLPHENOL	2600 U	3700 U	3600 U			400 U
4-CHLOROANILINE	2600 U	3700 U	3600 U			400 U
4-CHLOROPHENYL PHENYL ETHER	2600 U	3700 U	3600 U			400 U
4-METHYLPHENOL	2600 U	3700 U	3600 U			400 U
4-NITROANILINE	6200 U	9100 U	8800 U			960 U
4-NITROPHENOL	6200 U	9100 U	8800 U			960 U
ACENAPHTHENE	340 J	650 J	460 J			400 U
ACENAPHTHYLENE	2600 U	3700 U	3600 U			400 U
ANTHRACENE	730 J	2000 J	2200 J			400 U
BENZO(A)ANTHRACENE	11000	13000	13000			77 J
BENZO(A)PYRENE	10000	14000	15000			120 J
BENZO(B)FLUORANTHENE	14000	20000	21000			150 J
BENZO(G,H,I)PERYLENE	4600	7200	7200			68 J
BENZO(K)FLUORANTHENE	5400	7600	8300			400 U
BIS(2-CHLOROETHOXY)METHANE	2600 U	3700 U	3600 U			400 U
BIS(2-CHLOROETHYL)ETHER	2600 U	3700 U	3600 U			400 U
BIS(2-ETHYLHEXYL)PHTHALATE	2600 U	3700 U	3600 U			400 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS009 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)
SAMPLE NUMBER	CF15SB9DL [07/11/95]	CF15SS010 [07/12/95]	CF15SS010 [07/12/95]-D	CF15SS010DL [07/12/95]	CF15SS010DL [07/12/95]-D	CF15SB10 [07/12/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
BUTYL BENZYL PHTHALATE	2600 U	3700 U	3600 U			400 U
CARBAZOLE	700 J	1600 J	1600 J			400 U
CHRYSENE	12000	15000	17000			92 J
DI-N-BUTYL PHTHALATE	3200	410 J	700 J			250 J
DI-N-OCTYL PHTHALATE	2600 U	3700 U	3600 U			400 U
DIBENZO(A,H)ANTHRACENE	2000 J	2700 J	2500 J			400 U
DIBENZOFURAN	2600 U	320 J	220 J			400 U
DIETHYL PHTHALATE	2600 U	3700 U	3600 U			400 U
DIMETHYL PHTHALATE	2600 U	3700 U	3600 U			400 U
FLUORANTHENE	13000	18000	23000			150 J
FLUORENE	2600 U	380 J	280 J			400 U
HEXACHLOROBENZENE	2600 U	3700 U	3600 U			400 U
HEXACHLOROBUTADIENE	2600 U	3700 U	3600 U			400 U
HEXACHLOROCYCLOPENTADIENE	2600 U	3700 U	3600 U			400 U
HEXACHLOROETHANE	2600 U	3700 U	3600 U			400 U
INDENO(1,2,3-CD)PYRENE	5000	7100	6800			63 J
ISOPHORONE	2600 U	3700 U	3600 U			400 U
N-NITROSO-DI-N-PROPYLAMINE	2600 U	3700 U	3600 U			400 U
N-NITROSODIPHENYLAMINE	2600 U	3700 U	3600 U			400 U
NAPHTHALENE	380 J	510 J	300 J			400 U
NITROBENZENE	2600 U	3700 U	3600 U			400 U
PENTACHLOROPHENOL	6200 U	9100 U	8800 U			960 U
PHENANTHRENE	3500	9400	11000			95 J
PHENOL	2600 U	3700 U	3600 U			400 U
PYRENE	11000	16000	18000			130 J
Pesticides/PCBs (ug/kg)						
4,4'-DDD	390 U	380 UJ	370 UJ	3800 UJ	3700 UJ	4 U
4,4'-DDE	390 U	380 UJ	370 UJ	3800 UJ	3700 UJ	4 U
4,4'-DDT	390 U	380 UJ	370 UJ	3800 UJ	3700 UJ	4 U
ALDRIN	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
ALPHA-BHC	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
ALPHA-CHLORDANE	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
AROCLOR-1016	3900 U	3800 UJ	3700 UJ	38000 UJ	37000 UJ	40 U
AROCLOR-1221	7800 U	7600 UJ	7400 UJ	76000 UJ	74000 UJ	80 U
AROCLOR-1232	3900 U	3800 UJ	3700 UJ	38000 UJ	37000 UJ	40 U
AROCLOR-1242	3900 U	3800 UJ	3700 UJ	38000 UJ	37000 UJ	40 U
AROCLOR-1248	3900 U	3800 UJ	3700 UJ	38000 UJ	37000 UJ	40 U
AROCLOR-1254	3900 U	3800 UJ	3700 UJ	38000 UJ	37000 UJ	40 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS009 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)
SAMPLE NUMBER	CF15SB9DL [07/11/95]	CF15SS010 [07/12/95]	CF15SS010 [07/12/95]-D	CF15SS010DL [07/12/95]	CF15SS010DL [07/12/95]-D	CF15SB10 [07/12/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
AROCLOR-1260	3900 U	3800 UJ	3700 UJ	38000 UJ	37000 UJ	40 U
BETA-BHC	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
DELTA-BHC	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
DIELDRIN	390 U	380 UJ	370 UJ	3800 UJ	3700 UJ	4 U
ENDOSULFAN I	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
ENDOSULFAN II	390 U	380 UJ	370 UJ	3800 UJ	3700 UJ	4 U
ENDOSULFAN SULFATE	390 U	380 UJ	370 UJ	3800 UJ	3700 UJ	4 U
ENDRIN	390 U	380 UJ	370 UJ	3800 UJ	3700 UJ	4 U
ENDRIN ALDEHYDE	390 U	380 UJ	370 UJ	3800 UJ	3700 UJ	4 U
ENDRIN KETONE	390 U	380 UJ	370 UJ	3800 UJ	3700 UJ	4 U
GAMMA-BHC (LINDANE)	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
GAMMA-CHLORDANE	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
HEPTACHLOR	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
HEPTACHLOR EPOXIDE	190 U	190 UJ	180 UJ	1900 UJ	1800 UJ	2 U
METHOXYCHLOR	1900 U	1900 UJ	1800 UJ	19000 UJ	18000 UJ	20 U
TOXAPHENE	19000 U	19000 UJ	18000 UJ	190000 UJ	180000 UJ	200 U
Explosives (ug/kg)						
2,4,6-TRINITROTOLUENE		250 U	250 U			250 U
2-AMINO-4,6-DINITROTOLUENE		250 U	250 U			250 U
2-NITROTOLUENE		500 U	500 U			500 U
3-NITROTOLUENE		500 U	500 U			500 U
4-AMINO-2,6-DINITROTOLUENE		250 U	250 U			250 U
4-NITROTOLUENE		500 U	500 U			500 U
HMX		500 U	500 U			500 U
RDX		500 U	500 U			500 U
TETRYL		500 U	500 U			500 U
Petroleum Hydrocarbons (mg/kg)						
TOTAL PETROLEUM HYDROCARBONS		51	58			15
Inorganics (mg/kg)						
ALUMINUM		137 U	595 J			2270
ANTIMONY		3.1	0.89 J			1.8
ARSENIC		1.9	0.91			0.95 U
BARIUM		16.8	23.3			2.8
BERYLLIUM		0.22 U	0.22 U			0.24 U
CADMIUM		0.22 U	0.22 U			0.24 U
CALCIUM		597 J	895 J			683 J
CHROMIUM		1.3 U	1.6 U			1.9 U
COBALT		0.22 U	0.33 J			0.24 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS009 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)	CF15SS010 (Con)
SAMPLE NUMBER	CF15SB9DL [07/11/95]	CF15SS010 [07/12/95]	CF15SS010 [07/12/95]-D	CF15SS010DL [07/12/95]	CF15SS010DL [07/12/95]-D	CF15SB10 [07/12/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995
SAMPLE CODE	NORMAL	ORIG	DUP	ORIG	DUP	ORIG
COPPER		3.3	0.67 U			0.71 U
IRON		76.7 J	177 J			224
LEAD		223 J	32 J			3.1
MAGNESIUM		23.1 U	29.1 U			46.8 U
MANGANESE		2.2	1.7			1.1
MERCURY		0.11 U	0.11 U			0.12 U
NICKEL		0.67 U	0.67 U			0.89
POTASSIUM		20.6 U	20.6 U			21.8 U
SELENIUM		0.9 U	0.89 U			0.95 U
SILVER		0.22 U	0.22 U			0.24 U
SODIUM		148 U	163 U			211 U
THALLIUM		1.1 U	1.1 U			1.2 U
VANADIUM		0.41	1.4			1.3
ZINC		11.4 U	4.3 U			2.5 U
Miscellaneous Parameters (mg/kg)						
CYANIDE		0.17 U	0.15 U			0.17 U
TOTAL ORGANIC CARBON		12000	3700			4700

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS010 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS012 (Con)	CF15SS012 (Con)
SAMPLE NUMBER	CF15SB10 [07/12/95]-D	CF15SS011 [07/12/95]	CF15SS011DL [07/12/95]	CF15SS011RE [07/12/95]	CF15SB11 [07/12/95]	CF15SS012 [07/13/95]	CF15SB12 [07/13/95]
DEPTH	1-3	0-1	0-1	0-1	1-3	0-1	1-3
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/13/1995	7/13/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE	6 U	6 U			6 U	6 U	6 U
1,1,2,2-TETRACHLOROETHANE	6 U	6 U			6 U	6 U	6 U
1,1,2-TRICHLOROETHANE	6 U	6 U			6 U	6 U	6 U
1,1-DICHLOROETHANE	6 U	6 U			6 U	6 U	6 U
1,1-DICHLOROETHENE	6 U	6 U			6 U	6 U	6 U
1,2-DICHLOROETHANE	6 U	6 U			6 U	6 U	6 U
1,2-DICHLOROPROPANE	6 U	6 U			6 U	6 U	6 U
2-BUTANONE	12 U	11 U			12 U	11 U	12 U
2-HEXANONE	12 U	11 U			12 U	11 U	12 U
4-METHYL-2-PENTANONE	12 U	11 U			12 U	11 U	12 U
ACETONE	12 U	11 U			12 U	11 U	12 U
BENZENE	6 U	6 U			6 U	6 U	6 U
BROMODICHLOROMETHANE	6 U	6 U			6 U	6 U	6 U
BROMOFORM	6 U	6 U			6 U	6 U	6 U
BROMOMETHANE	12 U	11 U			12 U	11 U	12 U
CARBON DISULFIDE	6 U	6 U			6 U	6 U	6 U
CARBON TETRACHLORIDE	6 U	6 U			6 U	6 U	6 U
CHLOROBENZENE	6 U	6 U			6 U	6 U	6 U
CHLORODIBROMOMETHANE	6 U	6 U			6 U	6 U	6 U
CHLOROETHANE	12 U	11 U			12 U	11 U	12 U
CHLOROFORM	6 U	6 U			6 U	6 U	6 U
CHLOROMETHANE	12 U	11 U			12 U	11 U	12 U
CIS-1,3-DICHLOROPROPENE	6 U	6 U			6 U	6 U	6 U
ETHYLBENZENE	6 U	6 U			6 U	6 U	6 U
METHYLENE CHLORIDE	6 U	6 U			6 U	6 U	6 U
STYRENE	6 U	6 U			6 U	6 U	6 U
TETRACHLOROETHENE	6 U	6 U			6 U	6 U	6 U
TOLUENE	6 U	6 U			6 U	6 U	6 U
TOTAL 1,2-DICHLOROETHENE	6 U	6 U			6 U	6 U	6 U
TOTAL XYLENES	6 U	6 U			6 U	6 U	4 J
TRANS-1,3-DICHLOROPROPENE	6 U	6 U			6 U	6 U	6 U
TRICHLOROETHENE	6 U	6 U			6 U	6 U	6 U
VINYL CHLORIDE	12 U	11 U			12 U	11 U	12 U
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
1,2-DICHLOROBENZENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
1,3,5-TRINITROBENZENE	250 U	2500 U			250 U	250 U	250 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS010 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS012 (Con)	CF15SS012 (Con)
SAMPLE NUMBER	CF15SB10 [07/12/95]-D	CF15SS011 [07/12/95]	CF15SS011DL [07/12/95]	CF15SS011RE [07/12/95]	CF15SB11 [07/12/95]	CF15SS012 [07/13/95]	CF15SB12 [07/13/95]
DEPTH	1-3	0-1	0-1	0-1	1-3	0-1	1-3
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/13/1995	7/13/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
1,3-DINITROBENZENE	250 U	2500 U			250 U	250 U	250 U
1,4-DICHLOROBENZENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2,2'-OXYBIS(1-CHLOROPROPANE)	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2,4,5-TRICHLOROPHENOL	880 U	46000 UJ		57000000 UJ	920 U	18000 U	800 U
2,4,6-TRICHLOROPHENOL	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2,4-DICHLOROPHENOL	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2,4-DIMETHYLPHENOL	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2,4-DINITROPHENOL	880 U	46000 UJ		57000000 UJ	920 U	18000 U	800 U
2,4-DINITROTOLUENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2,6-DINITROTOLUENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2-CHLORONAPHTHALENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2-CHLOROPHENOL	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2-METHYLNAPHTHALENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2-METHYLPHENOL	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
2-NITROANILINE	880 U	46000 UJ		57000000 UJ	920 U	18000 U	800 U
2-NITROPHENOL	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
3,3'-DICHLOROBENZIDINE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
3-NITROANILINE	880 U	46000 UJ		57000000 UJ	920 U	18000 U	800 U
4,6-DINITRO-2-METHYLPHENOL	880 U	46000 UJ		57000000 UJ	920 U	18000 U	800 U
4-BROMOPHENYL PHENYL ETHER	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
4-CHLORO-3-METHYLPHENOL	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
4-CHLOROANILINE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
4-CHLOROPHENYL PHENYL ETHER	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
4-METHYLPHENOL	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
4-NITROANILINE	880 U	46000 UJ		57000000 UJ	920 U	18000 U	800 U
4-NITROPHENOL	880 U	46000 UJ		57000000 UJ	920 U	18000 U	800 U
ACENAPHTHENE	360 U	3500 J		3100000 J	380 U	1200 J	330 U
ACENAPHTHYLENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
ANTHRACENE	360 U	11000 J		14000000 J	32 J	3000 J	330 U
BENZO(A)ANTHRACENE	120 J	86000 J		59000000 J	260 J	27000	56 J
BENZO(A)PYRENE	150 J	83000 J		69000000 J	250 J	28000	58 J
BENZO(B)FLUORANTHENE	200 J	110000 J		97000000 J	320 J	35000	94 J
BENZO(G,H,I)PERYLENE	67 J	24000 J		33000000 J	110 J	3900 J	330 U
BENZO(K)FLUORANTHENE	120 J	43000 J		32000000 J	140 J	16000	40 J
BIS(2-CHLOROETHOXY)METHANE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
BIS(2-CHLOROETHYL)ETHER	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
BIS(2-ETHYLHEXYL)PHTHALATE	52 J	19000 UJ		23000000 UJ	380 U	7400 U	330 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS010 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS012 (Con)	CF15SS012 (Con)
SAMPLE NUMBER	CF15SB10 [07/12/95]-D	CF15SS011 [07/12/95]	CF15SS011DL [07/12/95]	CF15SS011RE [07/12/95]	CF15SB11 [07/12/95]	CF15SS012 [07/13/95]	CF15SB12 [07/13/95]
DEPTH	1-3	0-1	0-1	0-1	1-3	0-1	1-3
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/13/1995	7/13/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
CARBAZOLE	360 U	9100 J		9600000 J	27 J	3000 J	330 U
CHRYSENE	160 J	94000 J		67000000 J	300 J	32000	75 J
DI-N-BUTYL PHTHALATE	170 J	19000 UJ		23000000 UJ	99 J	7400 U	330 U
DI-N-OCTYL PHTHALATE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
DIBENZO(A,H)ANTHRACENE	360 U	14000 J		11000000 J	52 J	5600 J	330 U
DIBENZOFURAN	360 U	1000 J		2000000 J	380 U	7400 U	330 U
DIETHYL PHTHALATE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
DIMETHYL PHTHALATE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
FLUORANTHENE	200 J	120000 J		130000000 J	440	55000	100 J
FLUORENE	360 U	1500 J		2600000 J	380 U	460 J	330 U
HEXACHLOROBENZENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
HEXACHLOROBUTADIENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
HEXACHLOROCYCLOPENTADIENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
HEXACHLOROETHANE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
INDENO(1,2,3-CD)PYRENE	72 J	38000 J		30000000 J	150 J	15000	24 J
ISOPHORONE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
N-NITROSO-DI-N-PROPYLAMINE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
N-NITROSODIPHENYLAMINE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
NAPHTHALENE	360 U	3200 J		2200000 J	380 U	490 J	330 U
NITROBENZENE	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
PENTACHLOROPHENOL	880 U	46000 UJ		57000000 UJ	920 U	18000 U	800 U
PHENANTHRENE	85 J	52000 J		60000000 J	160 J	16000	33 J
PHENOL	360 U	19000 UJ		23000000 UJ	380 U	7400 U	330 U
PYRENE	190 J	94000 J		74000000 J	340 J	27000	68 J
Pesticides/PCBs (ug/kg)							
4,4'-DDD	4 U	380 UJ	3800 UJ		3.8 U	37 UJ	39 UJ
4,4'-DDE	4 U	380 UJ	3800 UJ		3.8 U	37 UJ	39 UJ
4,4'-DDT	4 U	380 UJ	3800 UJ		3.8 U	37 UJ	39 UJ
ALDRIN	2 U	190 UJ	1900 UJ		0.25 R	19 UJ	19 UJ
ALPHA-BHC	2 U	190 UJ	1900 UJ		1.9 U	19 UJ	19 UJ
ALPHA-CHLORDANE	2 U	190 UJ	1900 UJ		1.9 U	19 UJ	19 UJ
AROCLOR-1016	40 U	3800 UJ	38000 UJ		38 U	370 UJ	390 UJ
AROCLOR-1221	80 U	7600 UJ	76000 UJ		77 U	740 UJ	770 UJ
AROCLOR-1232	40 U	3800 UJ	38000 UJ		38 U	370 UJ	390 UJ
AROCLOR-1242	40 U	3800 UJ	38000 UJ		38 U	370 UJ	390 UJ
AROCLOR-1248	40 U	3800 UJ	38000 UJ		38 U	370 UJ	390 UJ
AROCLOR-1254	40 U	3800 UJ	38000 UJ		38 U	370 UJ	390 UJ

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS010 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS012 (Con)	CF15SS012 (Con)
SAMPLE NUMBER	CF15SB10 [07/12/95]-D	CF15SS011 [07/12/95]	CF15SS011DL [07/12/95]	CF15SS011RE [07/12/95]	CF15SB11 [07/12/95]	CF15SS012 [07/13/95]	CF15SB12 [07/13/95]
DEPTH	1-3	0-1	0-1	0-1	1-3	0-1	1-3
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/13/1995	7/13/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260	40 U	3800 UJ	38000 UJ		38 U	370 UJ	390 UJ
BETA-BHC	2 U	190 UJ	1900 UJ		1.9 U	19 UJ	19 UJ
DELTA-BHC	2 U	190 UJ	1900 UJ		1.9 U	19 UJ	19 UJ
DIELDRIN	4 U	380 UJ	3800 UJ		3.8 U	37 UJ	39 UJ
ENDOSULFAN I	2 U	190 UJ	1900 UJ		1.9 U	19 UJ	19 UJ
ENDOSULFAN II	4 U	380 UJ	3800 UJ		3.8 U	37 UJ	39 UJ
ENDOSULFAN SULFATE	4 U	380 UJ	3800 UJ		3.8 U	37 UJ	39 UJ
ENDRIN	4 U	380 UJ	3800 UJ		3.8 U	37 UJ	39 UJ
ENDRIN ALDEHYDE	4 U	380 UJ	3800 UJ		3.8 U	37 UJ	39 UJ
ENDRIN KETONE	4 U	380 UJ	3800 UJ		2.7 R	37 UJ	39 UJ
GAMMA-BHC (LINDANE)	2 U	190 UJ	1900 UJ		1.9 U	19 UJ	19 UJ
GAMMA-CHLORDANE	2 U	190 UJ	1900 UJ		1.9 U	19 UJ	19 UJ
HEPTACHLOR	2 U	190 UJ	1900 UJ		1.9 U	19 UJ	19 UJ
HEPTACHLOR EPOXIDE	2 U	190 UJ	1900 UJ		1.9 U	19 UJ	19 UJ
METHOXYCHLOR	20 U	1900 UJ	19000 UJ		19 U	190 UJ	190 UJ
TOXAPHENE	200 U	19000 UJ	190000 UJ		190 U	1900 UJ	1900 UJ
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE	250 U	2500 U			250 U	250 U	250 U
2-AMINO-4,6-DINITROTOLUENE	250 U	2500 U			250 U	250 U	250 U
2-NITROTOLUENE	500 U	5000 U			500 U	500 U	500 U
3-NITROTOLUENE	500 U	5000 U			500 U	500 U	500 U
4-AMINO-2,6-DINITROTOLUENE	250 U	2500 U			250 U	250 U	250 U
4-NITROTOLUENE	500 U	5000 U			500 U	500 U	500 U
HMX	500 U	5000 U			500 U	500 U	500 U
RDX	500 U	5000 U			500 U	500 U	500 U
TETRYL	500 U	5000 U			500 U	500 U	500 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS	22	120			18	110 J	14 J
Inorganics (mg/kg)							
ALUMINUM	2360	1200			2060	1000	468
ANTIMONY	2.4	3.3			0.93 J	5.5 U	4.4 U
ARSENIC	0.95 U	2.1			0.92 U	1.5	0.93 U
BARIUM	4.5	97.7			17.4	38.1	10.5
BERYLLIUM	0.24 U	0.23 U			0.23 U	0.22 U	0.23 U
CADMIUM	0.24 U	0.84			0.23 U	0.3	0.23 U
CALCIUM	1040 J	102000 J			2510 J	1240 J	1240 J
CHROMIUM	2 U	4.2 U			2.8 U	1.6	0.85 U
COBALT	0.24 U	0.23 U			0.23 U	0.22 UJ	0.23 UJ

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS010 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS011 (Con)	CF15SS012 (Con)	CF15SS012 (Con)
SAMPLE NUMBER	CF15SB10 [07/12/95]-D	CF15SS011 [07/12/95]	CF15SS011DL [07/12/95]	CF15SS011RE [07/12/95]	CF15SB11 [07/12/95]	CF15SS012 [07/13/95]	CF15SB12 [07/13/95]
DEPTH	1-3	0-1	0-1	0-1	1-3	0-1	1-3
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/12/1995	7/13/1995	7/13/1995
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER	0.71 U	1.1			0.69 U	1.4	0.69 U
IRON	205	764			298	231	153
LEAD	223		145		3.5	141 J	10.6 J
MAGNESIUM	43.2 U	631			46 U	40.7 U	35 U
MANGANESE	0.82	13.5			1.2	4.6	1.1 U
MERCURY	0.12 U	0.11 U			0.11 U	0.15	0.11 U
NICKEL	0.79	0.9			0.98	0.69 J	0.69 UJ
POTASSIUM	21.9 U	20.8 U			21.3 U	21.7	22.7
SELENIUM	0.95 U	0.9 U			0.92 U	0.89 U	0.93 U
SILVER	0.24 U	0.23 U			0.23 U	0.22 U	0.23 U
SODIUM	251 J	165 U			177 U	440 U	300 U
THALLIUM	1.2 U	1.1 U			1.2 U	1.1 U	1.2 U
VANADIUM	1.3	3.4			2.2	1	0.55 J
ZINC	2.5 U	24.7 U			6.9 U	8.6 U	1.5 U
Miscellaneous Parameters (mg/kg)							
CYANIDE	0.15 U	0.16 U			0.15 U	0.17 U	0.15 U
TOTAL ORGANIC CARBON	5800						

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS013(Con)	CF15SS013(Con)	CF15SS014 (Con)	CF15SS015 (Con)	CF15SS016 (Con)	CF15SS016 (Con)	CF15SS017 (Con)
SAMPLE NUMBER	CF15SS013 [07/13/95]	CF15SB13 [07/13/95]	CF15SS014 [07/26/95]	CF15SS015 [07/31/95]	CF15SS016 [07/20/95]	CF15SS016 [07/26/95]	CF15SS017 [07/13/95]
DEPTH	0-1	1-3	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/13/1995	7/13/1995	7/26/1995	7/31/1995	7/20/1995	7/26/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE	6 U	6 U	7 U	9 U	7 U		6 U
1,1,2,2-TETRACHLOROETHANE	6 U	6 U	7 U	9 U	7 U		6 U
1,1,2-TRICHLOROETHANE	6 U	6 U	7 U	9 U	7 U		6 U
1,1-DICHLOROETHANE	6 U	6 U	7 U	9 U	7 U		6 U
1,1-DICHLOROETHENE	6 U	6 U	7 U	9 U	7 U		6 U
1,2-DICHLOROETHANE	6 U	6 U	7 U	9 U	7 U		6 U
1,2-DICHLOROPROPANE	6 U	6 U	7 U	9 U	7 U		6 U
2-BUTANONE	11 U	12 U	14 U	18 U	14 U		11 U
2-HEXANONE	11 U	12 U	14 U	18 U	14 U		11 U
4-METHYL-2-PENTANONE	11 U	12 U	14 U	18 U	14 U		11 U
ACETONE	11 U	12 U	14 U	18 U	14 U		11 U
BENZENE	6 U	6 U	7 U	9 U	7 U		6 U
BROMODICHLOROMETHANE	6 U	6 U	7 U	9 U	7 U		6 U
BROMOFORM	6 U	6 U	7 U	9 U	7 U		6 U
BROMOMETHANE	11 U	12 U	14 U	18 U	14 U		11 U
CARBON DISULFIDE	6 U	6 U	7 U	9 U	7 U		6 U
CARBON TETRACHLORIDE	6 U	6 U	7 U	9 U	7 U		6 U
CHLOROBENZENE	6 U	6 U	7 U	9 U	7 U		6 U
CHLORODIBROMOMETHANE	6 U	6 U	7 U	9 U	7 U		6 U
CHLOROETHANE	11 U	12 U	14 U	18 U	14 U		11 U
CHLOROFORM	6 U	6 U	7 U	9 U	7 U		6 U
CHLOROMETHANE	11 U	12 U	14 U	18 U	14 U		11 U
CIS-1,3-DICHLOROPROPENE	6 U	6 U	7 U	9 U	7 U		6 U
ETHYLBENZENE	6 U	6 U	7 U	9 U	7 U		6 U
METHYLENE CHLORIDE	6 U	6 U	7 U	9 U	7 U		6 U
STYRENE	6 U	6 U	7 U	9 U	7 U		6 U
TETRACHLOROETHENE	6 U	6 U	7 U	9 U	7 U		6 U
TOLUENE	6 U	6 U	7 U	9 U	7 U		6 U
TOTAL 1,2-DICHLOROETHENE	6 U	6 U	7 U	9 U	7 U		6 U
TOTAL XYLENES	6 U	6 U	7 U	9 U	7 U		6 U
TRANS-1,3-DICHLOROPROPENE	6 U	6 U	7 U	9 U	7 U		6 U
TRICHLOROETHENE	6 U	6 U	7 U	9 U	7 U		6 U
VINYL CHLORIDE	11 U	12 U	14 U	18 U	14 U		11 U
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE	1800 U	390 U	480 U	590 U		460 U	370 U
1,2-DICHLOROBENZENE	1800 U	390 U	480 U	590 U		460 U	370 U
1,3,5-TRINITROBENZENE	2500 U	250 U	250 UJ	250 U		250 UJ	250 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS013(Con)	CF15SS013(Con)	CF15SS014 (Con)	CF15SS015 (Con)	CF15SS016 (Con)	CF15SS016 (Con)	CF15SS017 (Con)
SAMPLE NUMBER	CF15SS013 [07/13/95]	CF15SB13 [07/13/95]	CF15SS014 [07/26/95]	CF15SS015 [07/31/95]	CF15SS016 [07/20/95]	CF15SS016 [07/26/95]	CF15SS017 [07/13/95]
DEPTH	0-1	1-3	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/13/1995	7/13/1995	7/26/1995	7/31/1995	7/20/1995	7/26/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE	1800 U	390 U	480 U	590 U		460 U	370 U
1,3-DINITROBENZENE	2500 U	250 U	250 U	250 U		250 U	250 U
1,4-DICHLOROBENZENE	1800 U	390 U	480 U	590 U		460 U	370 U
2,2'-OXYBIS(1-CHLOROPROPANE)	1800 U	390 U	480 U	590 U		460 U	370 U
2,4,5-TRICHLOROPHENOL	4500 U	950 U	1200 U	1400 U		1100 U	890 U
2,4,6-TRICHLOROPHENOL	1800 U	390 U	480 U	590 U		460 U	370 U
2,4-DICHLOROPHENOL	1800 U	390 U	480 U	590 U		460 U	370 U
2,4-DIMETHYLPHENOL	1800 U	390 U	480 U	590 U		460 U	370 U
2,4-DINITROPHENOL	4500 U	950 U	1200 U	1400 U		1100 U	890 U
2,4-DINITROTOLUENE	1800 U	390 U	480 U	590 U		460 U	370 U
2,6-DINITROTOLUENE	1800 U	390 U	480 U	590 U		460 U	370 U
2-CHLORONAPHTHALENE	1800 U	390 U	480 U	590 U		460 U	370 U
2-CHLOROPHENOL	1800 U	390 U	480 U	590 U		460 U	370 U
2-METHYLNAPHTHALENE	1800 U	390 U	480 U	590 U		460 U	370 U
2-METHYLPHENOL	1800 U	390 U	480 U	590 U		460 U	370 U
2-NITROANILINE	4500 U	950 U	1200 U	1400 U		1100 U	890 U
2-NITROPHENOL	1800 U	390 U	480 U	590 U		460 U	370 U
3,3'-DICHLOROBENZIDINE	1800 U	390 U	480 U	590 U		460 U	370 U
3-NITROANILINE	4500 U	950 U	1200 U	1400 U		1100 U	890 U
4,6-DINITRO-2-METHYLPHENOL	4500 U	950 U	1200 U	1400 U		1100 U	890 U
4-BROMOPHENYL PHENYL ETHER	1800 U	390 U	480 U	590 U		460 U	370 U
4-CHLORO-3-METHYLPHENOL	1800 U	390 U	480 U	590 U		460 U	370 U
4-CHLOROANILINE	1800 U	390 U	480 U	590 U		460 U	370 U
4-CHLOROPHENYL PHENYL ETHER	1800 U	390 U	480 U	590 U		460 U	370 U
4-METHYLPHENOL	1800 U	390 U	480 U	590 U		460 U	370 U
4-NITROANILINE	4500 U	950 U	1200 U	1400 U		1100 U	890 U
4-NITROPHENOL	4500 U	950 U	1200 U	1400 U		1100 U	890 U
ACENAPHTHENE	360 J	390 U	480 U	590 U		460 U	370 U
ACENAPHTHYLENE	1800 U	390 U	480 U	590 U		460 U	370 U
ANTHRACENE	640 J	390 U	480 U	590 U		460 U	370 U
BENZO(A)ANTHRACENE	7900	120 J	480 U	590 U		76 J	370 U
BENZO(A)PYRENE	8400	130 J	79 J	590 U		68 J	370 U
BENZO(B)FLUORANTHENE	11000	170 J	93 J	41 J		91 J	370 U
BENZO(G,H,I)PERYLENE	3500	82 J	56 J	590 U		460 U	370 U
BENZO(K)FLUORANTHENE	5200	80 J	40 J	590 U		42 J	370 U
BIS(2-CHLOROETHOXY)METHANE	1800 U	390 U	480 U	590 U		460 U	370 U
BIS(2-CHLOROETHYL)ETHER	1800 U	390 U	480 U	590 U		460 U	370 U
BIS(2-ETHYLHEXYL)PHTHALATE	1800 U	390 U	80 J	590 U		460 U	370 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS013(Con)	CF15SS013(Con)	CF15SS014 (Con)	CF15SS015 (Con)	CF15SS016 (Con)	CF15SS016 (Con)	CF15SS017 (Con)
SAMPLE NUMBER	CF15SS013 [07/13/95]	CF15SB13 [07/13/95]	CF15SS014 [07/26/95]	CF15SS015 [07/31/95]	CF15SS016 [07/20/95]	CF15SS016 [07/26/95]	CF15SS017 [07/13/95]
DEPTH	0-1	1-3	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/13/1995	7/13/1995	7/26/1995	7/31/1995	7/20/1995	7/26/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	1800 U	390 U	480 U	590 U		460 U	370 U
CARBAZOLE	650 J	390 U	480 U	590 U		460 U	370 U
CHRYSENE	8900	140 J	72 J	590 U		88 J	370 U
DI-N-BUTYL PHTHALATE	1800 U	390 U	3600	190 J		1200	370 U
DI-N-OCTYL PHTHALATE	1800 U	390 U	480 U	590 U		460 U	370 U
DIBENZO(A,H)ANTHRACENE	1400 J	28 J	480 U	590 U		460 U	370 U
DIBENZOFURAN	120 J	390 U	480 U	590 U		460 U	370 U
DIETHYL PHTHALATE	1800 U	390 U	480 U	590 U		460 U	370 U
DIMETHYL PHTHALATE	1800 U	390 U	480 U	590 U		460 U	370 U
FLUORANTHENE	12000	230 J	120 J	39 J		97 J	370 U
FLUORENE	140 J	390 U	480 U	590 U		460 U	370 U
HEXACHLOROBENZENE	1800 U	390 U	480 U	590 U		460 U	370 U
HEXACHLOROBUTADIENE	1800 U	390 U	480 U	590 U		460 U	370 U
HEXACHLOROCYCLOPENTADIENE	1800 U	390 U	480 U	590 U		460 U	370 U
HEXACHLOROETHANE	1800 U	390 U	480 U	590 U		460 U	370 U
INDENO(1,2,3-CD)PYRENE	3900	74 J	44 J	590 U		35 J	370 U
ISOPHORONE	1800 U	390 U	480 U	590 U		460 U	370 U
N-NITROSO-DI-N-PROPYLAMINE	1800 U	390 U	480 U	590 U		460 U	370 U
N-NITROSODIPHENYLAMINE	1800 U	390 U	480 U	590 U		460 U	370 U
NAPHTHALENE	350 J	390 U	480 U	590 U		460 U	370 U
NITROBENZENE	1800 U	390 U	480 U	590 U		460 U	370 U
PENTACHLOROPHENOL	4500 U	950 U	1200 U	1400 U		1100 U	890 U
PHENANTHRENE	3200	83 J	60 J	590 U		29 J	370 U
PHENOL	1800 U	390 U	480 U	590 U		460 U	370 U
PYRENE	7600	160 J	100 J	590 U		82 J	370 U
Pesticides/PCBs (ug/kg)							
4,4'-DDD	38 UJ	40 UJ	4.8 U	5.9 U		4.7 U	3.7 U
4,4'-DDE	38 UJ	40 UJ	4.8 U	5.9 U		4.7 U	3.7 U
4,4'-DDT	38 UJ	40 UJ	0.69 J	3.5 R		4.7 U	3.7 U
ALDRIN	19 UJ	20 UJ	0.27 R	1 R		0.44 R	1.8 U
ALPHA-BHC	19 UJ	20 UJ	2.4 U	3 U		2.4 U	1.8 U
ALPHA-CHLORDANE	19 UJ	20 UJ	2.4 U	3 U		2.4 U	1.8 U
AROCLOR-1016	380 UJ	400 UJ	48 U	59 U		47 U	37 U
AROCLOR-1221	750 UJ	790 UJ	96 U	120 U		94 U	74 U
AROCLOR-1232	380 UJ	400 UJ	48 U	59 U		47 U	37 U
AROCLOR-1242	380 UJ	400 UJ	48 U	59 U		47 U	37 U
AROCLOR-1248	380 UJ	400 UJ	48 U	59 U		47 U	37 U
AROCLOR-1254	380 UJ	400 UJ	48 U	59 U		47 U	37 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS013(Con)	CF15SS013(Con)	CF15SS014 (Con)	CF15SS015 (Con)	CF15SS016 (Con)	CF15SS016 (Con)	CF15SS017 (Con)
SAMPLE NUMBER	CF15SS013 [07/13/95]	CF15SB13 [07/13/95]	CF15SS014 [07/26/95]	CF15SS015 [07/31/95]	CF15SS016 [07/20/95]	CF15SS016 [07/26/95]	CF15SS017 [07/13/95]
DEPTH	0-1	1-3	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/13/1995	7/13/1995	7/26/1995	7/31/1995	7/20/1995	7/26/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260	380 UJ	400 UJ	48 U	59 U		47 U	37 U
BETA-BHC	19 UJ	20 UJ	2.4 U	3 U		2.4 U	1.8 U
DELTA-BHC	19 UJ	20 UJ	2.4 U	3 U		2.4 U	1.8 U
DIELDRIN	38 UJ	40 UJ	4.8 U	5.9 UJ		4.7 U	3.7 U
ENDOSULFAN I	19 UJ	20 UJ	2.4 U	3 U		2.4 U	1.8 U
ENDOSULFAN II	38 UJ	40 UJ	4.8 U	5.9 U		4.7 U	0.74 J
ENDOSULFAN SULFATE	38 UJ	40 UJ	4.8 U	5.9 U		4.7 U	3.7 U
ENDRIN	38 UJ	40 UJ	4.8 U	5.9 UJ		4.7 U	3.7 U
ENDRIN ALDEHYDE	38 UJ	40 UJ	4.8 U	5.9 U		4.7 U	3.7 U
ENDRIN KETONE	38 UJ	40 UJ	4.8 U	5.9 U		4.7 U	3.7 U
GAMMA-BHC (LINDANE)	19 UJ	20 UJ	2.4 U	3 UJ		2.4 U	1.8 U
GAMMA-CHLORDANE	19 UJ	20 UJ	2.4 U	3 U		2.4 U	1.8 U
HEPTACHLOR	19 UJ	20 UJ	2.4 U	3 U		2.4 U	1.8 U
HEPTACHLOR EPOXIDE	19 UJ	20 UJ	2.4 U	3 U		2.4 U	1.8 U
METHOXYCHLOR	190 UJ	200 UJ	49	30 U		24 U	18 U
TOXAPHENE	1900 UJ	2000 UJ	240 U	300 U		240 U	180 U
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE	2500 U	250 U	250 UJ	250 U		250 UJ	250 U
2-AMINO-4,6-DINITROTOLUENE	2500 U	250 U	250 U	250 U		250 U	250 U
2-NITROTOLUENE	5000 U	500 U	500 UJ	500 U		500 UJ	500 U
3-NITROTOLUENE	5000 U	500 U	500 U	500 U		500 U	500 U
4-AMINO-2,6-DINITROTOLUENE	2500 U	250 U	250 U	250 U		250 U	250 U
4-NITROTOLUENE	5000 U	500 U	500 U	500 U		500 U	500 U
HMX	5000 U	500 U	500 U	500 U		500 U	500 U
RDX	5000 U	500 U	500 UJ	500 U		500 UJ	500 U
TETRYL	5000 U	500 U	500 U	500 U		500 U	500 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS	170 J	60 J	14 U	160 J		32	30 J
Inorganics (mg/kg)							
ALUMINUM	414	1950	498 J	5570 J		232 J	498
ANTIMONY	1.4 U	0.8 U	0.58 U	301		0.56 U	0.44 U
ARSENIC	0.95	0.96 U	1.2 UJ	96.5		1.1 UJ	0.89 U
BARIUM	10.7	2.4	1.1	4.8		4.9	1.4
BERYLLIUM	0.23 U	0.24 U	0.29 U	0.36 U		0.28 U	0.22 U
CADMIUM	0.4	0.24 U	0.29 U	0.36 U		0.28 U	0.22 U
CALCIUM	4270 J	865 J	153	199		434	137 U
CHROMIUM	26.9	2	2.1 U	6.2 U		0.79 U	0.92 U
COBALT	0.35 J	0.24 UJ	0.29 UJ	0.36 UJ		0.28 UJ	0.22 UJ

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS013(Con)	CF15SS013(Con)	CF15SS014 (Con)	CF15SS015 (Con)	CF15SS016 (Con)	CF15SS016 (Con)	CF15SS017 (Con)
SAMPLE NUMBER	CF15SS013 [07/13/95]	CF15SB13 [07/13/95]	CF15SS014 [07/26/95]	CF15SS015 [07/31/95]	CF15SS016 [07/20/95]	CF15SS016 [07/26/95]	CF15SS017 [07/13/95]
DEPTH	0-1	1-3	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/13/1995	7/13/1995	7/26/1995	7/31/1995	7/20/1995	7/26/1995	7/13/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER	2.7	0.72 U	3.8 U	4.4 U		2.2 U	0.67 U
IRON	829	161	84.2 J	665		163 J	121
LEAD	251 J	3.8 J	22.7	7510		47.4	2.9 J
MAGNESIUM	83.8	47.2 U	20.3 U	67.5		20.2 U	19.7 U
MANGANESE	20.2	1.9 U	0.6	2		1.1	0.84 U
MERCURY	0.11 U	0.13 U	0.14 U	0.18 U		0.14 U	0.11 U
NICKEL	0.91 J	0.91 J	0.87 U	2.2		0.84 U	0.67 UJ
POTASSIUM	20.7 U	27.6	26.6 U	39.3		25.8 U	20.5 U
SELENIUM	0.9 U	0.96 U	1.2 UJ	1.4 UJ		1.1 UJ	0.89 U
SILVER	0.23 U	0.24 U	0.29 U	0.36 U		0.28 U	0.22 U
SODIUM	322 U	279 U	198 UJ	358 J		218 UJ	247 U
THALLIUM	1.1 U	1.2 U	1.4 U	1.8 UJ		1.4 U	1.1 U
VANADIUM	0.89	1.1	0.8	4.1		0.41	0.82
ZINC	21 U	1.6 U	4.9 U	14.5 U		3.3 U	1 U
Miscellaneous Parameters (mg/kg)							
CYANIDE	0.19 U	0.16 U	0.22 U	0.25 U		0.24 U	0.15 U
TOTAL ORGANIC CARBON				46000			

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS017 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS019 (Con)	CF15SS019 (Con)
SAMPLE NUMBER	CF15SB17 [07/13/95]	CF15SS018 [07/27/95]	CF15SS018DL [07/27/95]	CF15SB18 [07/27/95]	CF15SB18DL [07/27/95]	CF15SS019 [07/10/95]	CF15SB19 [07/10/95]
DEPTH	1-3	0-1	0-1	1-3	1-3	0-1	1-3
SAMPLE DATE	7/13/1995	7/27/1995	7/27/1995	7/27/1995	7/27/1995	7/10/1995	7/10/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE	6 U	6 U		6 U		6 U	6 U
1,1,2,2-TETRACHLOROETHANE	6 U	6 U		6 U		6 U	6 U
1,1,2-TRICHLOROETHANE	6 U	6 U		6 U		6 U	6 U
1,1-DICHLOROETHANE	6 U	6 U		6 U		6 U	6 U
1,1-DICHLOROETHENE	6 U	6 U		6 U		6 U	6 U
1,2-DICHLOROETHANE	6 U	6 U		6 U		6 U	6 U
1,2-DICHLOROPROPANE	6 U	6 U		6 U		6 U	6 U
2-BUTANONE	12 U	13 U		12 U		11 U	12 U
2-HEXANONE	12 U	13 U		12 U		11 U	12 U
4-METHYL-2-PENTANONE	12 U	13 U		12 U		11 U	12 U
ACETONE	12 U	13 U		12 U		11 U	12 U
BENZENE	6 U	6 U		6 U		6 U	6 U
BROMODICHLOROMETHANE	6 U	6 U		6 U		6 U	6 U
BROMOFORM	6 U	6 U		6 U		6 U	6 U
BROMOMETHANE	12 U	13 U		12 U		11 U	12 U
CARBON DISULFIDE	6 U	6 U		6 U		6 U	6 U
CARBON TETRACHLORIDE	6 U	6 U		6 U		6 U	6 U
CHLOROBENZENE	6 U	6 U		6 U		6 U	6 U
CHLORODIBROMOMETHANE	6 U	6 U		6 U		6 U	6 U
CHLOROETHANE	12 U	13 U		12 U		11 U	12 U
CHLOROFORM	6 U	6 U		6 U		6 U	6 U
CHLOROMETHANE	12 U	13 U		12 U		11 U	12 U
CIS-1,3-DICHLOROPROPENE	6 U	6 U		6 U		6 U	6 U
ETHYLBENZENE	6 U	6 U		6 U		6 U	6 U
METHYLENE CHLORIDE	6 U	6 U		6 U		6 U	6 U
STYRENE	6 U	6 U		6 U		6 U	6 U
TETRACHLOROETHENE	6 U	6 U		6 U		6 U	6 U
TOLUENE	6 U	6 U		6 U		6 U	6 U
TOTAL 1,2-DICHLOROETHENE	6 U	6 U		6 U		6 U	6 U
TOTAL XYLENES	6 U	6 U		6 U		6 U	6 U
TRANS-1,3-DICHLOROPROPENE	6 U	6 U		6 U		6 U	6 U
TRICHLOROETHENE	6 U	6 U		6 U		6 U	6 U
VINYL CHLORIDE	12 U	13 U		12 U		11 U	12 U
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
1,2-DICHLOROBENZENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
1,3,5-TRINITROBENZENE	250 U	250 UJ		250 UJ		250 U	250 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS017 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS019 (Con)	CF15SS019 (Con)
SAMPLE NUMBER	CF15SB17 [07/13/95]	CF15SS018 [07/27/95]	CF15SS018DL [07/27/95]	CF15SB18 [07/27/95]	CF15SB18DL [07/27/95]	CF15SS019 [07/10/95]	CF15SB19 [07/10/95]
DEPTH	1-3	0-1	0-1	1-3	1-3	0-1	1-3
SAMPLE DATE	7/13/1995	7/27/1995	7/27/1995	7/27/1995	7/27/1995	7/10/1995	7/10/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
1,3-DINITROBENZENE	250 U	250 U		250 U		250 U	250 U
1,4-DICHLOROBENZENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2,2'-OXYBIS(1-CHLOROPROPANE)	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2,4,5-TRICHLOROPHENOL	980 U	1000 U	2000 U	950 U	1900 U	900 U	960 U
2,4,6-TRICHLOROPHENOL	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2,4-DICHLOROPHENOL	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2,4-DIMETHYLPHENOL	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2,4-DINITROPHENOL	980 U	1000 U	2000 U	950 U	1900 U	900 U	960 U
2,4-DINITROTOLUENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2,6-DINITROTOLUENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2-CHLORONAPHTHALENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2-CHLOROPHENOL	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2-METHYLNAPHTHALENE	400 U	22 J	840 U	390 U	790 U	370 U	400 U
2-METHYLPHENOL	400 U	420 U	840 U	390 U	790 U	370 U	400 U
2-NITROANILINE	980 U	1000 U	2000 U	950 U	1900 U	900 U	960 U
2-NITROPHENOL	400 U	420 U	840 U	390 U	790 U	370 U	400 U
3,3'-DICHLOROBENZIDINE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
3-NITROANILINE	980 U	1000 U	2000 U	950 U	1900 U	900 U	960 U
4,6-DINITRO-2-METHYLPHENOL	980 U	1000 U	2000 U	950 U	1900 U	900 U	960 U
4-BROMOPHENYL PHENYL ETHER	400 U	420 U	840 U	390 U	790 U	370 U	400 U
4-CHLORO-3-METHYLPHENOL	400 U	420 U	840 U	390 U	790 U	370 U	400 U
4-CHLOROANILINE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
4-CHLOROPHENYL PHENYL ETHER	400 U	420 U	840 U	390 U	790 U	370 U	400 U
4-METHYLPHENOL	400 U	420 U	840 U	390 U	790 U	370 U	400 U
4-NITROANILINE	980 U	1000 U	2000 U	950 U	1900 U	900 U	960 U
4-NITROPHENOL	980 U	1000 U	2000 U	950 U	1900 U	900 U	960 U
ACENAPHTHENE	400 U	110 J	84 J	390 U	790 U	370 U	400 U
ACENAPHTHYLENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
ANTHRACENE	400 U	250 J	200 J	390 U	790 U	370 U	400 U
BENZO(A)ANTHRACENE	400 U	2300	1800	390 U	790 U	120 J	400 U
BENZO(A)PYRENE	400 U	2500	2000	390 U	790 U	150 J	400 U
BENZO(B)FLUORANTHENE	400 U	4200 J	3100	390 U	790 U	210 J	400 U
BENZO(G,H,I)PERYLENE	400 U	450	460 J	390 U	790 U	67 J	400 U
BENZO(K)FLUORANTHENE	400 U	1500	1100	390 U	790 U	92 J	400 U
BIS(2-CHLOROETHOXY)METHANE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
BIS(2-CHLOROETHYL)ETHER	400 U	420 U	840 U	390 U	790 U	370 U	400 U
BIS(2-ETHYLHEXYL)PHTHALATE	400 U	97 J	57 J	390 U	790 U	370 U	400 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS017 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS019 (Con)	CF15SS019 (Con)
SAMPLE NUMBER	CF15SB17 [07/13/95]	CF15SS018 [07/27/95]	CF15SS018DL [07/27/95]	CF15SB18 [07/27/95]	CF15SB18DL [07/27/95]	CF15SS019 [07/10/95]	CF15SB19 [07/10/95]
DEPTH	1-3	0-1	0-1	1-3	1-3	0-1	1-3
SAMPLE DATE	7/13/1995	7/27/1995	7/27/1995	7/27/1995	7/27/1995	7/10/1995	7/10/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	400 U	160 J	82 J	56 J	790 U	370 U	400 U
CARBAZOLE	400 U	260 J	180 J	390 U	790 U	370 U	400 U
CHRYSENE	400 U	2600	2300	390 U	790 U	170 J	400 U
DI-N-BUTYL PHTHALATE	400 U	4500 J	3600	5600 J	3700	760	260 J
DI-N-OCTYL PHTHALATE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
DIBENZO(A,H)ANTHRACENE	400 U	350 J	320 J	390 U	790 U	22 J	400 U
DIBENZOFURAN	400 U	35 J	840 U	390 U	790 U	370 U	400 U
DIETHYL PHTHALATE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
DIMETHYL PHTHALATE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
FLUORANTHENE	400 U	3600 J	3200	390 U	790 U	230 J	400 U
FLUORENE	400 U	43 J	840 U	390 U	790 U	370 U	400 U
HEXACHLOROBENZENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
HEXACHLOROBUTADIENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
HEXACHLOROCYCLOPENTADIENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
HEXACHLOROETHANE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
INDENO(1,2,3-CD)PYRENE	400 U	950	970	390 U	790 U	69 J	400 U
ISOPHORONE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
N-NITROSO-DI-N-PROPYLAMINE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
N-NITROSODIPHENYLAMINE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
NAPHTHALENE	400 U	80 J	73 J	390 U	790 U	370 U	400 U
NITROBENZENE	400 U	420 U	840 U	390 U	790 U	370 U	400 U
PENTACHLOROPHENOL	980 U	1000 U	2000 U	950 U	1900 U	900 U	960 U
PHENANTHRENE	400 U	1100	1000	390 U	790 U	62 J	400 U
PHENOL	400 U	420 U	840 U	390 U	790 U	370 U	400 U
PYRENE	400 U	2700	2300	41 J	790 U	140 J	400 U
Pesticides/PCBs (ug/kg)							
4,4'-DDD	4.1 U	21 UJ		4 U		3.7 U	4 U
4,4'-DDE	4.1 U	21 UJ		4 U		3.7 U	4 U
4,4'-DDT	4.1 U	21 J		4 U		3.7 U	4 U
ALDRIN	2 U	10 UJ		0.35 R		1.9 UJ	0.53 R
ALPHA-BHC	2 U	10 UJ		2 U		1.9 U	2 U
ALPHA-CHLORDANE	2 U	10 UJ		2 U		1.9 U	2 U
AROCLOR-1016	41 U	210 UJ		40 U		37 U	40 U
AROCLOR-1221	81 U	420 UJ		79 U		75 U	80 U
AROCLOR-1232	41 U	210 UJ		40 U		37 U	40 U
AROCLOR-1242	41 U	210 UJ		40 U		37 U	40 U
AROCLOR-1248	41 U	210 UJ		40 U		37 U	40 U
AROCLOR-1254	41 U	210 UJ		40 U		37 U	40 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS017 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS019 (Con)	CF15SS019 (Con)
SAMPLE NUMBER	CF15SB17 [07/13/95]	CF15SS018 [07/27/95]	CF15SS018DL [07/27/95]	CF15SB18 [07/27/95]	CF15SB18DL [07/27/95]	CF15SS019 [07/10/95]	CF15SB19 [07/10/95]
DEPTH	1-3	0-1	0-1	1-3	1-3	0-1	1-3
SAMPLE DATE	7/13/1995	7/27/1995	7/27/1995	7/27/1995	7/27/1995	7/10/1995	7/10/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260	41 U	210 UJ		40 U		37 U	40 U
BETA-BHC	2 U	10 UJ		2 U		1.9 U	2 U
DELTA-BHC	2 U	10 UJ		2 U		1.9 U	2 U
DIELDRIN	4.1 U	21 UJ		4 U		3.7 U	4 U
ENDOSULFAN I	2 U	10 UJ		2 U		1.9 U	2 U
ENDOSULFAN II	4.1 U	21 UJ		4 U		3.7 U	4 U
ENDOSULFAN SULFATE	4.1 U	21 UJ		4 U		3.7 U	4 U
ENDRIN	4.1 U	21 UJ		4 U		3.7 U	4 U
ENDRIN ALDEHYDE	4.1 U	21 UJ		4 U		3.7 U	4 U
ENDRIN KETONE	4.1 U	21 UJ		4 U		3.7 U	4 U
GAMMA-BHC (LINDANE)	2 U	10 UJ		2 U		1.9 U	2 U
GAMMA-CHLORDANE	2 U	10 UJ		2 U		1.9 U	2 U
HEPTACHLOR	2 U	10 UJ		2 U		1.9 UJ	2 UJ
HEPTACHLOR EPOXIDE	2 U	10 UJ		2 U		1.9 U	2 U
METHOXYCHLOR	20 U	100 UJ		20 U		19 U	4 U
TOXAPHENE	200 U	1000 UJ		200 U		190 U	200 U
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE	250 U	250 UJ		250 UJ		250 U	250 U
2-AMINO-4,6-DINITROTOLUENE	250 U	250 U		250 U		250 U	250 U
2-NITROTOLUENE	500 U	500 UJ		500 UJ		500 U	500 U
3-NITROTOLUENE	500 U	500 U		500 U		500 U	500 U
4-AMINO-2,6-DINITROTOLUENE	250 U	250 U		250 U		250 U	250 U
4-NITROTOLUENE	500 U	500 U		500 U		500 U	500 U
HMX	500 U	500 U		500 U		500 U	500 U
RDX	500 U	500 UJ		500 UJ		500 U	500 U
TETRYL	500 U	500 U		500 U		500 U	500 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS	12 UJ	110		12 U		38 J	57 J
Inorganics (mg/kg)							
ALUMINUM	430	316 J		2140		1380	1410
ANTIMONY	0.61 U	0.51 U		0.48 U		4.4 U	4.8 U
ARSENIC	0.97 U	1.1 J		0.95 UJ		0.88 UJ	0.96 UJ
BARIUM	0.95 U	2.4		1.7		3.1	1.3
BERYLLIUM	0.24 U	0.25 U		0.24 U		0.22 U	0.24 U
CADMIUM	0.24 U	0.25 U		0.24 U		0.22 U	0.24 U
CALCIUM	109 U	2170		773		159 J	62.7 J
CHROMIUM	1.1 U	1 U		2.7		2 U	2.2 U
COBALT	0.24 UJ	0.25 UJ		0.24 UJ		1.3 U	1.4 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS017 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS018 (Con)	CF15SS019 (Con)	CF15SS019 (Con)
SAMPLE NUMBER	CF15SB17 [07/13/95]	CF15SS018 [07/27/95]	CF15SS018DL [07/27/95]	CF15SB18 [07/27/95]	CF15SB18DL [07/27/95]	CF15SS019 [07/10/95]	CF15SB19 [07/10/95]
DEPTH	1-3	0-1	0-1	1-3	1-3	0-1	1-3
SAMPLE DATE	7/13/1995	7/27/1995	7/27/1995	7/27/1995	7/27/1995	7/10/1995	7/10/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER	0.73 U	3.5 U		1.9 U		0.66 U	0.72 U
IRON	66.6	100 J		170 J		285 J	191 J
LEAD	1.9 J	14.1 J		1.1 J		10.4 J	1.5 J
MAGNESIUM	15.9 U	34 U		35.5 U		32.7 U	24.6 U
MANGANESE	0.83 U	5.6		0.89		0.96 U	0.74 U
MERCURY	0.12 U	0.13 U		0.12 U		0.11 U	0.12 U
NICKEL	0.82 J	0.9 J		1.1		2.7 U	2.9 U
POTASSIUM	22.3 U	23.3 U		21.9 U		21.8 U	20.9 U
SELENIUM	0.97 U	1 UJ		0.95 UJ		0.88 U	0.96 U
SILVER	0.24 U	0.25 U		0.24 U		0.88 U	0.96 U
SODIUM	185 U	184 UJ		204 UJ		262 J	156 J
THALLIUM	1.2 U	1.3 U		1.2 U		1.1 U	1.2 U
VANADIUM	0.69	0.78		1.8		1 J	1.2 J
ZINC	0.94 U	2.8 U		2.5 U		1.6 UJ	0.96 UJ
Miscellaneous Parameters (mg/kg)							
CYANIDE	0.18 U	0.24 U		0.23 U		0.42 UJ	0.2 UJ
TOTAL ORGANIC CARBON		9200		4900		8400	5700

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS021 (Con)	CF15SS021 (Con)
SAMPLE NUMBER	CF15SS020 [07/31/95]	CF15SS020 [07/31/95]-D	CF15SS020RE [07/31/95]	CF15SS020RE [07/31/95]-D	CF15SS021 [07/10/95]	CF15SS021DL [07/10/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/31/1995	7/31/1995	7/31/1995	7/31/1995	7/10/1995	7/10/1995
SAMPLE CODE	ORIG	DUP	ORIG	DUP	NORMAL	NORMAL
Volatile Organics (ug/kg)						
1,1,1-TRICHLOROETHANE	6 U	6 U			6 U	
1,1,2,2-TETRACHLOROETHANE	6 U	6 U			6 U	
1,1,2-TRICHLOROETHANE	6 U	6 U			6 U	
1,1-DICHLOROETHANE	6 U	6 U			6 U	
1,1-DICHLOROETHENE	6 U	6 U			6 U	
1,2-DICHLOROETHANE	6 U	6 U			6 U	
1,2-DICHLOROPROPANE	6 U	6 U			6 U	
2-BUTANONE	13 U	12 U			11 U	
2-HEXANONE	13 U	12 U			11 U	
4-METHYL-2-PENTANONE	13 U	12 U			11 U	
ACETONE	13 U	12 U			11 U	
BENZENE	6 U	6 U			6 U	
BROMODICHLOROMETHANE	6 U	6 U			6 U	
BROMOFORM	6 U	6 U			6 U	
BROMOMETHANE	13 U	12 U			11 U	
CARBON DISULFIDE	6 U	6 U			6 U	
CARBON TETRACHLORIDE	6 U	6 U			6 U	
CHLOROBENZENE	6 U	6 U			6 U	
CHLORODIBROMOMETHANE	6 U	6 U			6 U	
CHLOROETHANE	13 U	12 U			11 U	
CHLOROFORM	6 U	6 U			6 U	
CHLOROMETHANE	13 U	12 U			11 U	
CIS-1,3-DICHLOROPROPENE	6 U	6 U			6 U	
ETHYLBENZENE	6 U	6 U			6 U	
METHYLENE CHLORIDE	6 U	6 U			6 U	
STYRENE	6 U	6 U			6 U	
TETRACHLOROETHENE	6 U	6 U			6 U	
TOLUENE	6 U	6 U			6 U	
TOTAL 1,2-DICHLOROETHENE	6 U	6 U			6 U	
TOTAL XYLENES	6 U	6 U			6 U	
TRANS-1,3-DICHLOROPROPENE	6 U	6 U			6 U	
TRICHLOROETHENE	6 U	6 U			6 U	
VINYL CHLORIDE	13 U	12 U			11 U	
Semivolatile Organics (ug/kg)						
1,2,4-TRICHLOROBENZENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
1,2-DICHLOROBENZENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
1,3,5-TRINITROBENZENE	2500 U	2500 U			250 U	

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS021 (Con)	CF15SS021 (Con)
SAMPLE NUMBER	CF15SS020 [07/31/95]	CF15SS020 [07/31/95]-D	CF15SS020RE [07/31/95]	CF15SS020RE [07/31/95]-D	CF15SS021 [07/10/95]	CF15SS021DL [07/10/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/31/1995	7/31/1995	7/31/1995	7/31/1995	7/10/1995	7/10/1995
SAMPLE CODE	ORIG	DUP	ORIG	DUP	NORMAL	NORMAL
1,3-DICHLOROBENZENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
1,3-DINITROBENZENE	2500 U	2500 U			250 U	
1,4-DICHLOROBENZENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2,2'-OXYBIS(1-CHLOROPROPANE)	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2,4,5-TRICHLOROPHENOL	100000 UJ	50000 U	32000 UJ	31000 UJ	900 U	1800 U
2,4,6-TRICHLOROPHENOL	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2,4-DICHLOROPHENOL	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2,4-DIMETHYLPHENOL	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2,4-DINITROPHENOL	100000 UJ	50000 U	32000 UJ	31000 UJ	900 U	1800 U
2,4-DINITROTOLUENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2,6-DINITROTOLUENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2-CHLORONAPHTHALENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2-CHLOROPHENOL	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2-METHYLNAPHTHALENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2-METHYLPHENOL	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
2-NITROANILINE	100000 UJ	50000 U	32000 UJ	31000 UJ	900 U	1800 U
2-NITROPHENOL	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
3,3'-DICHLOROBENZIDINE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
3-NITROANILINE	100000 UJ	50000 U	32000 UJ	31000 UJ	900 U	1800 U
4,6-DINITRO-2-METHYLPHENOL	100000 UJ	50000 U	32000 UJ	31000 UJ	900 U	1800 U
4-BROMOPHENYL PHENYL ETHER	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
4-CHLORO-3-METHYLPHENOL	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
4-CHLOROANILINE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
4-CHLOROPHENYL PHENYL ETHER	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
4-METHYLPHENOL	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
4-NITROANILINE	100000 UJ	50000 U	32000 UJ	31000 UJ	900 U	1800 U
4-NITROPHENOL	100000 UJ	50000 U	32000 UJ	31000 UJ	900 U	1800 U
ACENAPHTHENE	7200 J	2800 J	1400 J	12000 UJ	370 U	740 U
ACENAPHTHYLENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
ANTHRACENE	14000 J	7800 J	3700 J	870 J	370 U	740 U
BENZO(A)ANTHRACENE	110000 J	60000	37000 J	8600 J	370 U	740 U
BENZO(A)PYRENE	100000 J	60000	40000 J	10000 J	370 U	740 U
BENZO(B)FLUORANTHENE	140000 J	80000	58000 J	15000 J	370 U	740 U
BENZO(G,H,I)PERYLENE	56000 J	29000 J	18000 J	5600 J	370 U	740 U
BENZO(K)FLUORANTHENE	57000 J	33000	25000 J	5400 J	370 U	740 U
BIS(2-CHLOROETHOXY)METHANE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
BIS(2-CHLOROETHYL)ETHER	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
BIS(2-ETHYLHEXYL)PHTHALATE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS021 (Con)	CF15SS021 (Con)
SAMPLE NUMBER	CF15SS020 [07/31/95]	CF15SS020 [07/31/95]-D	CF15SS020RE [07/31/95]	CF15SS020RE [07/31/95]-D	CF15SS021 [07/10/95]	CF15SS021DL [07/10/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/31/1995	7/31/1995	7/31/1995	7/31/1995	7/10/1995	7/10/1995
SAMPLE CODE	ORIG	DUP	ORIG	DUP	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
CARBAZOLE	13000 J	7700 J	3800 J	740 J	370 U	740 U
CHRYSENE	130000	68000 J	43000 J	10000 J	370 U	740 U
DI-N-BUTYL PHTHALATE	42000 UJ	20000 U	13000 UJ	12000 UJ	3000 J	3300
DI-N-OCTYL PHTHALATE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
DIBENZO(A,H)ANTHRACENE	17000 J	9000 J	5800 J	12000 UJ	370 U	740 U
DIBENZOFURAN	2200 J	20000 U	13000 UJ	12000 UJ	370 U	740 U
DIETHYL PHTHALATE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
DIMETHYL PHTHALATE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
FLUORANTHENE	200000 J	110000	62000 J	14000 J	370 U	740 U
FLUORENE	2700 J	1000 J	13000 UJ	12000 UJ	370 U	740 U
HEXACHLOROBENZENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
HEXACHLOROBUTADIENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
HEXACHLOROCYCLOPENTADIENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
HEXACHLOROETHANE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
INDENO(1,2,3-CD)PYRENE	52000 J	27000 J	17000 J	4900 J	370 U	740 U
ISOPHORONE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
N-NITROSO-DI-N-PROPYLAMINE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
N-NITROSODIPHENYLAMINE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
NAPHTHALENE	6500 J	2300 J	1300 J	12000 UJ	370 U	740 U
NITROBENZENE	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
PENTACHLOROPHENOL	100000 UJ	50000 U	32000 UJ	31000 UJ	900 U	1800 U
PHENANTHRENE	72000 J	39000	19000 J	4300 J	370 U	740 U
PHENOL	42000 UJ	20000 U	13000 UJ	12000 UJ	370 U	740 U
PYRENE	170000 J	86000 J	46000 J	13000 J	370 U	740 U
Pesticides/PCBs (ug/kg)						
4,4'-DDD	210 UJ	210 UJ			0.053 R	
4,4'-DDE	210 UJ	210 UJ			3.7 U	
4,4'-DDT	210 UJ	210 UJ			3.7 U	
ALDRIN	110 UJ	100 UJ			0.47 R	
ALPHA-BHC	110 UJ	100 UJ			1.9 U	
ALPHA-CHLORDANE	110 UJ	100 UJ			1.9 U	
AROCLOR-1016	2100 UJ	2100 UJ			37 U	
AROCLOR-1221	4200 UJ	4200 UJ			75 U	
AROCLOR-1232	2100 UJ	2100 UJ			37 U	
AROCLOR-1242	2100 UJ	2100 UJ			37 U	
AROCLOR-1248	2100 UJ	2100 UJ			37 U	
AROCLOR-1254	2100 UJ	2100 UJ			37 U	

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER DEPTH SAMPLE DATE SAMPLE CODE	CF15SS020 (Con) CF15SS020 [07/31/95] 0-1 7/31/1995 ORIG	CF15SS020 (Con) CF15SS020 [07/31/95]-D 0-1 7/31/1995 DUP	CF15SS020 (Con) CF15SS020RE [07/31/95] 0-1 7/31/1995 ORIG	CF15SS020 (Con) CF15SS020RE [07/31/95]-D 0-1 7/31/1995 DUP	CF15SS021 (Con) CF15SS021 [07/10/95] 0-1 7/10/1995 NORMAL	CF15SS021 (Con) CF15SS021DL [07/10/95] 0-1 7/10/1995 NORMAL
AROCLOR-1260	2100 UJ	2100 UJ			37 U	
BETA-BHC	110 UJ	100 UJ			1.9 U	
DELTA-BHC	110 UJ	100 UJ			1.9 U	
DIELDRIN	210 UJ	210 UJ			3.7 U	
ENDOSULFAN I	110 UJ	100 UJ			1.9 U	
ENDOSULFAN II	210 UJ	210 UJ			0.67 R	
ENDOSULFAN SULFATE	210 UJ	210 UJ			3.7 U	
ENDRIN	210 UJ	210 UJ			3.7 U	
ENDRIN ALDEHYDE	210 UJ	210 UJ			2.7 J	
ENDRIN KETONE	210 UJ	210 UJ			3.7 U	
GAMMA-BHC (LINDANE)	110 UJ	100 UJ			1.9 U	
GAMMA-CHLORDANE	19 R	16 R			1.9 U	
HEPTACHLOR	110 UJ	100 UJ			1.9 UJ	
HEPTACHLOR EPOXIDE	110 UJ	100 UJ			1.9 U	
METHOXYCHLOR	1100 UJ	1000 UJ			19 U	
TOXAPHENE	11000 UJ	10000 UJ			190 U	
Explosives (ug/kg)						
2,4,6-TRINITROTOLUENE	2500 U	2500 U			250 U	
2-AMINO-4,6-DINITROTOLUENE	2500 U	2500 U			250 U	
2-NITROTOLUENE	5000 U	5000 U			500 U	
3-NITROTOLUENE	5000 U	5000 U			500 U	
4-AMINO-2,6-DINITROTOLUENE	2500 U	2500 U			250 U	
4-NITROTOLUENE	5000 U	5000 U			500 U	
HMX	5000 U	5000 U			500 U	
RDX	5000 U	5000 U			500 U	
TETRYL	5000 U	5000 U			500 U	
Petroleum Hydrocarbons (mg/kg)						
TOTAL PETROLEUM HYDROCARBONS	130 J	58 J			30 J	
Inorganics (mg/kg)						
ALUMINUM	844 J	796 J			88	
ANTIMONY	4.1 U	4.2 U			5.5 U	
ARSENIC	1.5 J	1.9 U			0.9 UJ	
BARIUM	6.9	7.2			1.4	
BERYLLIUM	0.26 U	0.25 U			0.23 U	
CADMIUM	0.26 U	0.25 U			0.23 U	
CALCIUM	889	807			88.6 J	
CHROMIUM	1.4 U	1.4 U			2 U	
COBALT	0.26 UJ	0.25 UJ			1.4 U	

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS020 (Con)	CF15SS021 (Con)	CF15SS021 (Con)
SAMPLE NUMBER	CF15SS020 [07/31/95]	CF15SS020 [07/31/95]-D	CF15SS020RE [07/31/95]	CF15SS020RE [07/31/95]-D	CF15SS021 [07/10/95]	CF15SS021DL [07/10/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/31/1995	7/31/1995	7/31/1995	7/31/1995	7/10/1995	7/10/1995
SAMPLE CODE	ORIG	DUP	ORIG	DUP	NORMAL	NORMAL
COPPER	0.84 U	1 U			0.68 U	
IRON	198	330			76.2 J	
LEAD	278	296			1090 J	
MAGNESIUM	35.2 UJ	34.6 UJ			12.3 U	
MANGANESE	3.3	4.2			0.53 U	
MERCURY	0.8 J	0.2 J			0.11 U	
NICKEL	0.77 U	0.75 U			2.7 U	
POTASSIUM	23.5 U	23 U			15.4 U	
SELENIUM	1 UJ	1 UJ			0.9 U	
SILVER	0.26 U	0.25 U			0.9 U	
SODIUM	148 J	118 J			161 J	
THALLIUM	1.3 UJ	1.2 UJ			1.1 U	
VANADIUM	1.2	1.6			0.68 U	
ZINC	7.2 U	8 U			0.9 UJ	
Miscellaneous Parameters (mg/kg)						
CYANIDE	0.17 U	0.19 U			0.11 UJ	
TOTAL ORGANIC CARBON	10000	8400				

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS021 (Con)	CF15SS022 (Con)	CF15SS022 (Con)	CF15SS023 (Con)	CF15SS023 (Con)	CF15SS024 (Con)	CF15SS025(Con)
SAMPLE NUMBER	CF15SB21 [07/10/95]	CF15SS022 [07/06/95]	CF15SS022DL [07/06/95]	CF15SS023 [07/06/95]	CF15SS023DL [07/06/95]	CF15SS024 [07/06/95]	CF15SS025 [07/11/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/10/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE	6 U	7 U		8 U		8 U	6 U
1,1,2,2-TETRACHLOROETHANE	6 U	7 U		8 U		8 U	6 U
1,1,2-TRICHLOROETHANE	6 U	7 U		8 U		8 U	6 U
1,1-DICHLOROETHANE	6 U	7 U		8 U		8 U	6 U
1,1-DICHLOROETHENE	6 U	7 U		8 U		8 U	6 U
1,2-DICHLOROETHANE	6 U	7 U		8 U		8 U	6 U
1,2-DICHLOROPROPANE	6 U	7 U		8 U		8 U	6 U
2-BUTANONE	13 U	14 U		17 U		17 U	12 U
2-HEXANONE	13 U	14 U		17 U		17 U	12 U
4-METHYL-2-PENTANONE	13 U	14 U		17 U		17 U	12 U
ACETONE	13 U	14 U		17 U		17 U	12 U
BENZENE	6 U	7 U		8 U		8 U	6 U
BROMODICHLOROMETHANE	6 U	7 U		8 U		8 U	6 U
BROMOFORM	6 U	7 U		8 U		8 U	6 U
BROMOMETHANE	13 U	14 U		17 U		17 U	12 U
CARBON DISULFIDE	6 U	7 U		8 U		8 U	6 U
CARBON TETRACHLORIDE	6 U	7 U		8 U		8 U	6 U
CHLOROBENZENE	6 U	7 U		8 U		8 U	6 U
CHLORODIBROMOMETHANE	6 U	7 U		8 U		8 U	6 U
CHLOROETHANE	13 U	14 U		17 U		17 U	12 U
CHLOROFORM	6 U	7 U		8 U		8 U	6 U
CHLOROMETHANE	13 U	14 U		17 U		17 U	12 U
CIS-1,3-DICHLOROPROPENE	6 U	7 U		8 U		8 U	6 U
ETHYLBENZENE	6 U	7 U		8 U		8 U	6 U
METHYLENE CHLORIDE	6 U	7 U		8 U		8 U	6 U
STYRENE	6 U	7 U		8 U		8 U	6 U
TETRACHLOROETHENE	6 U	7 U		8 U		8 U	6 U
TOLUENE	6 U	7 U		8 U		8 U	6 U
TOTAL 1,2-DICHLOROETHENE	6 U	7 U		8 U		8 U	6 U
TOTAL XYLENES	6 U	7 U		8 U		8 U	6 U
TRANS-1,3-DICHLOROPROPENE	6 U	7 U		8 U		8 U	6 U
TRICHLOROETHENE	6 U	7 U		8 U		8 U	6 U
VINYL CHLORIDE	13 U	14 U		17 U		17 U	12 U
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
1,2-DICHLOROBENZENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
1,3,5-TRINITROBENZENE	250 U	2500 U		250 U		250 U	250 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS021 (Con)	CF15SS022 (Con)	CF15SS022 (Con)	CF15SS023 (Con)	CF15SS023 (Con)	CF15SS024 (Con)	CF15SS025(Con)
SAMPLE NUMBER	CF15SB21 [07/10/95]	CF15SS022 [07/06/95]	CF15SS022DL [07/06/95]	CF15SS023 [07/06/95]	CF15SS023DL [07/06/95]	CF15SS024 [07/06/95]	CF15SS025 [07/11/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/10/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
1,3-DINITROBENZENE	250 U	2500 U		250 U		250 U	250 U
1,4-DICHLOROBENZENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2,2'-OXYBIS(1-CHLOROPROPANE)	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2,4,5-TRICHLOROPHENOL	1000 U	1100 U	2200 U	1300 U	2600 U	1400 U	960 U
2,4,6-TRICHLOROPHENOL	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2,4-DICHLOROPHENOL	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2,4-DIMETHYLPHENOL	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2,4-DINITROPHENOL	1000 U	1100 U	2200 U	1300 U	2600 U	1400 U	960 U
2,4-DINITROTOLUENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2,6-DINITROTOLUENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2-CHLORONAPHTHALENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2-CHLOROPHENOL	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2-METHYLNAPHTHALENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2-METHYLPHENOL	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
2-NITROANILINE	1000 U	1100 U	2200 U	1300 U	2600 U	1400 U	960 U
2-NITROPHENOL	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
3,3'-DICHLOROBENZIDINE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
3-NITROANILINE	1000 U	1100 U	2200 U	1300 U	2600 U	1400 U	960 U
4,6-DINITRO-2-METHYLPHENOL	1000 U	1100 U	2200 U	1300 U	2600 U	1400 U	960 U
4-BROMOPHENYL PHENYL ETHER	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
4-CHLORO-3-METHYLPHENOL	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
4-CHLOROANILINE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
4-CHLOROPHENYL PHENYL ETHER	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
4-METHYLPHENOL	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
4-NITROANILINE	1000 U	1100 U	2200 U	1300 U	2600 U	1400 U	960 U
4-NITROPHENOL	1000 U	1100 U	2200 U	1300 U	2600 U	1400 U	960 U
ACENAPHTHENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
ACENAPHTHYLENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
ANTHRACENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
BENZO(A)ANTHRACENE	420 U	55 J	71 J	550 U	1100 U	300 J	400 U
BENZO(A)PYRENE	420 U	80 J	90 J	550 U	1100 U	390 J	400 U
BENZO(B)FLUORANTHENE	420 U	110 J	110 J	550 U	1100 U	570	55 J
BENZO(G,H,I)PERYLENE	420 U	36 J	56 J	550 U	1100 U	150 J	400 U
BENZO(K)FLUORANTHENE	420 U	56 J	56 J	550 U	1100 U	67 J	400 U
BIS(2-CHLOROETHOXY)METHANE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
BIS(2-CHLOROETHYL)ETHER	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
BIS(2-ETHYLHEXYL)PHTHALATE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS021 (Con)	CF15SS022 (Con)	CF15SS022 (Con)	CF15SS023 (Con)	CF15SS023 (Con)	CF15SS024 (Con)	CF15SS025(Con)
SAMPLE NUMBER	CF15SB21 [07/10/95]	CF15SS022 [07/06/95]	CF15SS022DL [07/06/95]	CF15SS023 [07/06/95]	CF15SS023DL [07/06/95]	CF15SS024 [07/06/95]	CF15SS025 [07/11/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/10/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	420 U	280 J	260 J	220 J	160 J	560 U	400 U
CARBAZOLE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
CHRYSENE	420 U	77 J	86 J	550 U	1100 U	400 J	400 U
DI-N-BUTYL PHTHALATE	3300	4100 J	4900	4500 J	3900	3600	3300
DI-N-OCTYL PHTHALATE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
DIBENZO(A,H)ANTHRACENE	420 U	460 U	910 U	550 U	1100 U	55 J	400 U
DIBENZOFURAN	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
DIETHYL PHTHALATE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
DIMETHYL PHTHALATE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
FLUORANTHENE	420 U	94 J	94 J	550 U	1100 U	470 J	49 J
FLUORENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
HEXACHLOROBENZENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
HEXACHLOROBUTADIENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
HEXACHLOROCYCLOPENTADIENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
HEXACHLOROETHANE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
INDENO(1,2,3-CD)PYRENE	420 U	34 J	48 J	550 U	1100 U	180 J	400 U
ISOPHORONE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
N-NITROSO-DI-N-PROPYLAMINE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
N-NITROSODIPHENYLAMINE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
NAPHTHALENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
NITROBENZENE	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
PENTACHLOROPHENOL	1000 U	1100 U	2200 U	1300 U	2600 U	1400 U	960 U
PHENANTHRENE	420 U	460 U	910 U	550 U	1100 U	100 J	36 J
PHENOL	420 U	460 U	910 U	550 U	1100 U	560 U	400 U
PYRENE	420 U	59 J	61 J	550 U	1100 U	310 J	38 J
Pesticides/PCBs (ug/kg)							
4,4'-DDD	4.2 U	4.6 U		5.6 U		5.6 U	4 U
4,4'-DDE	4.2 U	4.6 U		1.3 J		0.73 J	0.16 J
4,4'-DDT	0 R	4.6 U		5.6 U		5.6 U	4 U
ALDRIN	2.1 R	1.6 R		2.8 UJ		1.9 R	2 U
ALPHA-BHC	2.1 U	2.3 U		2.8 U		2.8 U	2 U
ALPHA-CHLORDANE	2.1 U	2.3 U		2.8 U		2.8 U	2 U
AROCLOR-1016	42 U	46 U		56 U		56 U	40 U
AROCLOR-1221	84 U	93 U		110 U		110 U	80 U
AROCLOR-1232	42 U	46 U		56 U		56 U	40 U
AROCLOR-1242	42 U	46 U		56 U		56 U	40 U
AROCLOR-1248	42 U	46 U		56 U		56 U	40 U
AROCLOR-1254	42 U	46 U		56 U		56 U	40 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS021 (Con)	CF15SS022 (Con)	CF15SS022 (Con)	CF15SS023 (Con)	CF15SS023 (Con)	CF15SS024 (Con)	CF15SS025(Con)
SAMPLE NUMBER	CF15SB21 [07/10/95]	CF15SS022 [07/06/95]	CF15SS022DL [07/06/95]	CF15SS023 [07/06/95]	CF15SS023DL [07/06/95]	CF15SS024 [07/06/95]	CF15SS025 [07/11/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/10/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260	42 U	46 U		56 U		56 U	40 U
BETA-BHC	2.1 U	2.3 U		2.8 U		2.8 U	2 U
DELTA-BHC	2.1 U	2.3 U		2.8 U		2.8 U	2 U
DIELDRIN	4.2 U	4.6 U		5.6 U		5.6 U	4 U
ENDOSULFAN I	2.1 U	2.3 U		2.8 U		2.8 U	2 U
ENDOSULFAN II	4.2 U	4.6 U		5.6 U		5.6 U	4 U
ENDOSULFAN SULFATE	4.2 U	4.6 U		5.6 U		5.6 U	4 U
ENDRIN	4.2 U	4.6 U		0.9 U		5.6 U	4 U
ENDRIN ALDEHYDE	4.2 U	4.6 U		5.6 U		5.6 U	4 U
ENDRIN KETONE	4.2 U	4.6 U		5.6 U		5.6 U	4 U
GAMMA-BHC (LINDANE)	2.1 U	2.3 U		2.8 U		2.8 U	2 U
GAMMA-CHLORDANE	2.1 U	2.3 U		2.8 U		2.8 U	2 U
HEPTACHLOR	2.1 U	2.3 UJ		2.8 UJ		2.8 UJ	2 U
HEPTACHLOR EPOXIDE	2.1 U	2.3 U		2.8 U		2.8 U	2 U
METHOXYCHLOR	21 U	4.6 U		5.6 U		28 U	20 U
TOXAPHENE	210 U	230 U		280 U		280 U	200 U
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE	250 U	2500 U		250 U		250 U	250 U
2-AMINO-4,6-DINITROTOLUENE	250 U	2500 U		250 U		250 U	250 U
2-NITROTOLUENE	500 U	5000 U		500 U		500 U	500 U
3-NITROTOLUENE	500 U	5000 U		500 U		500 U	500 U
4-AMINO-2,6-DINITROTOLUENE	250 U	2500 U		250 U		250 U	250 U
4-NITROTOLUENE	500 U	5000 U		1170		500 U	500 U
HMX	500 U	5000 U		500 U		500 U	500 U
RDX	500 U	5000 U		500 U		500 U	500 U
TETRYL	500 U	5000 U		500 U		500 U	500 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS	13 U	54 J		66 J		27 J	15
Inorganics (mg/kg)							
ALUMINUM	1430	713		558		7140	118
ANTIMONY	0.51 U	5.5 U		6.6 U		6.9 U	0.9 J
ARSENIC	1 U	1.1 UJ		1.3 UJ		2.9 J	0.94 U
BARIUM	1.3	6.8		3.5		47.8	1.1
BERYLLIUM	0.25 U	0.28 U		0.33 U		0.34 U	0.24 U
CADMIUM	0.25 U	0.28 U		0.33 U		0.34 U	0.24 U
CALCIUM	133 U	224 J		111 J		967	109 U
CHROMIUM	1.8 U	2.5 U		3 U		4.3	0.38 U
COBALT	0.35	1.7 U		2 U		2.1 U	0.24 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS021 (Con)	CF15SS022 (Con)	CF15SS022 (Con)	CF15SS023 (Con)	CF15SS023 (Con)	CF15SS024 (Con)	CF15SS025(Con)
SAMPLE NUMBER	CF15SB21 [07/10/95]	CF15SS022 [07/06/95]	CF15SS022DL [07/06/95]	CF15SS023 [07/06/95]	CF15SS023DL [07/06/95]	CF15SS024 [07/06/95]	CF15SS025 [07/11/95]
DEPTH	1-3	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/10/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER	0.76 U	0.83 U		1 U		2.4 U	0.71 U
IRON	128	207 J		274 J		1340 J	55.3 U
LEAD	15.7	40.7 J		6.2 J		602 J	80.8
MAGNESIUM	29.1 U	38.2 U		60.6		123	10.2 U
MANGANESE	1	1.1 U		1.1 U		4.2 U	1.5
MERCURY	0.13 U	0.14 U		0.17 U		0.18 U	0.11 U
NICKEL	0.79	3.3 U		4 U		4.1 U	0.71 U
POTASSIUM	23.2 U	34 U		46.2 U		76.8 U	21.7 U
SELENIUM	1 U	1.1 U		1.3 U		1.7 J	0.94 U
SILVER	0.25 U	1.1 U		1.3 U		1.4 U	0.24 U
SODIUM	191	281 J		261 J		390 J	134 U
THALLIUM	1.3 U	1.4 U		1.7 U		1.7 U	1.2 U
VANADIUM	1.2	0.83 U		2		5.2	0.24 U
ZINC	4.7 U	1.1 UJ		4.8 UJ		2.9 UJ	0.92 U
Miscellaneous Parameters (mg/kg)							
CYANIDE	0.16 U	0.14 UJ		0.42 UJ		0.31 UJ	0.15 U
TOTAL ORGANIC CARBON		15000					

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS025(Con)	CF15SS025(Con)	CF15SS025(Con)	CF15SS026 (Con)	CF15SS026 (Con)	CF15SS027(Con)	CF15SS027(Con)
SAMPLE NUMBER	CF15SS025DL [07/11/95]	CF15SB25 [07/11/95]	CF15SB25DL [07/11/95]	CF15SS026 [07/31/95]	CF15SS026D [07/31/95]	CF15SS027 [07/20/95]	CF15SS027 [07/26/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/11/1995	7/11/1995	7/31/1995	7/31/1995	7/20/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE		6 U		7 U	7 U	6 U	
1,1,2,2-TETRACHLOROETHANE		6 U		7 U	7 U	6 U	
1,1,2-TRICHLOROETHANE		6 U		7 U	7 U	6 U	
1,1-DICHLOROETHANE		6 U		7 U	7 U	6 U	
1,1-DICHLOROETHENE		6 U		7 U	7 U	6 U	
1,2-DICHLOROETHANE		6 U		7 U	7 U	6 U	
1,2-DICHLOROPROPANE		6 U		7 U	7 U	6 U	
2-BUTANONE		12 U		13 U	14 U	12 U	
2-HEXANONE		12 U		13 U	14 U	12 U	
4-METHYL-2-PENTANONE		12 U		13 U	14 U	12 U	
ACETONE		12 U		13 U	14 U	12 U	
BENZENE		6 U		7 U	7 U	6 U	
BROMODICHLOROMETHANE		6 U		7 U	7 U	6 U	
BROMOFORM		6 U		7 U	7 U	6 U	
BROMOMETHANE		12 U		13 U	14 U	12 U	
CARBON DISULFIDE		6 U		7 U	7 U	6 U	
CARBON TETRACHLORIDE		6 U		7 U	7 U	6 U	
CHLOROBENZENE		6 U		7 U	7 U	6 U	
CHLORODIBROMOMETHANE		6 U		7 U	7 U	6 U	
CHLOROETHANE		12 U		13 U	14 U	12 U	
CHLOROFORM		6 U		7 U	7 U	6 U	
CHLOROMETHANE		12 U		13 U	14 U	12 U	
CIS-1,3-DICHLOROPROPENE		6 U		7 U	7 U	6 U	
ETHYLBENZENE		6 U		7 U	7 U	6 U	
METHYLENE CHLORIDE		6 U		7 U	7 U	6 U	
STYRENE		6 U		7 U	7 U	6 U	
TETRACHLOROETHENE		6 U		7 U	7 U	6 U	
TOLUENE		6 U		7 U	7 U	6 U	
TOTAL 1,2-DICHLOROETHENE		6 U		7 U	7 U	6 U	
TOTAL XYLENES		6 U		7 U	7 U	6 U	
TRANS-1,3-DICHLOROPROPENE		6 U		7 U	7 U	6 U	
TRICHLOROETHENE		6 U		7 U	7 U	6 U	
VINYL CHLORIDE		12 U		13 U	14 U	12 U	
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE	790 U	400 U	800 U	440 U	450 U		410 U
1,2-DICHLOROBENZENE	790 U	400 U	800 U	440 U	450 U		410 U
1,3,5-TRINITROBENZENE		250 U		250 U	250 U		250 UJ

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS025(Con)	CF15SS025(Con)	CF15SS025(Con)	CF15SS026 (Con)	CF15SS026 (Con)	CF15SS027(Con)	CF15SS027(Con)
SAMPLE NUMBER	CF15SS025DL [07/11/95]	CF15SB25 [07/11/95]	CF15SB25DL [07/11/95]	CF15SS026 [07/31/95]	CF15SS026D [07/31/95]	CF15SS027 [07/20/95]	CF15SS027 [07/26/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/11/1995	7/11/1995	7/31/1995	7/31/1995	7/20/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
1,3-DICHLOROBENZENE	790 U	400 U	800 U	440 U	450 U		410 U
1,3-DINITROBENZENE		250 U		250 U	250 U		250 U
1,4-DICHLOROBENZENE	790 U	400 U	800 U	440 U	450 U		410 U
2,2'-OXYBIS(1-CHLOROPROPANE)	790 U	400 U	800 U	440 U	450 U		410 U
2,4,5-TRICHLOROPHENOL	1900 U	960 U	1900 U	1100 U	1100 U		990 U
2,4,6-TRICHLOROPHENOL	790 U	400 U	800 U	440 U	450 U		410 U
2,4-DICHLOROPHENOL	790 U	400 U	800 U	440 U	450 U		410 U
2,4-DIMETHYLPHENOL	790 U	400 U	800 U	440 U	450 U		410 U
2,4-DINITROPHENOL	1900 U	960 U	1900 U	1100 U	1100 U		990 U
2,4-DINITROTOLUENE	790 U	400 U	800 U	440 U	450 U		410 U
2,6-DINITROTOLUENE	790 U	400 U	800 U	440 U	450 U		410 U
2-CHLORONAPHTHALENE	790 U	400 U	800 U	440 U	450 U		410 U
2-CHLOROPHENOL	790 U	400 U	800 U	440 U	450 U		410 U
2-METHYLNAPHTHALENE	790 U	400 U	800 U	440 U	450 U		410 U
2-METHYLPHENOL	790 U	400 U	800 U	440 U	450 U		410 U
2-NITROANILINE	1900 U	960 U	1900 U	1100 U	1100 U		990 U
2-NITROPHENOL	790 U	400 U	800 U	440 U	450 U		410 U
3,3'-DICHLOROBENZIDINE	790 U	400 U	800 U	440 U	450 U		410 U
3-NITROANILINE	1900 U	960 U	1900 U	1100 U	1100 U		990 U
4,6-DINITRO-2-METHYLPHENOL	1900 U	960 U	1900 U	1100 U	1100 U		990 U
4-BROMOPHENYL PHENYL ETHER	790 U	400 U	800 U	440 U	450 U		410 U
4-CHLORO-3-METHYLPHENOL	790 U	400 U	800 U	440 U	450 U		410 U
4-CHLOROANILINE	790 U	400 U	800 U	440 U	450 U		410 U
4-CHLOROPHENYL PHENYL ETHER	790 U	400 U	800 U	440 U	450 U		410 U
4-METHYLPHENOL	790 U	400 U	800 U	440 U	450 U		410 U
4-NITROANILINE	1900 U	960 U	1900 U	1100 U	1100 U		990 U
4-NITROPHENOL	1900 U	960 U	1900 U	1100 U	1100 U		990 U
ACENAPHTHENE	790 U	400 U	800 U	440 U	450 U		47 J
ACENAPHTHYLENE	790 U	400 U	800 U	440 U	450 U		410 U
ANTHRACENE	790 U	400 U	800 U	440 U	450 U		120 J
BENZO(A)ANTHRACENE	790 U	35 J	800 U	440 U	450 U		1300
BENZO(A)PYRENE	790 U	40 J	800 U	53 J	450 U		1300
BENZO(B)FLUORANTHENE	790 U	49 J	800 U	59 J	450 U		2000
BENZO(G,H,I)PERYLENE	790 U	400 U	800 U	440 U	450 U		610
BENZO(K)FLUORANTHENE	790 U	400 U	800 U	440 U	450 U		910
BIS(2-CHLOROETHOXY)METHANE	790 U	400 U	800 U	440 U	450 U		410 U
BIS(2-CHLOROETHYL)ETHER	790 U	400 U	800 U	440 U	450 U		410 U
BIS(2-ETHYLHEXYL)PHTHALATE	790 U	53 J	800 U	440 U	34 J		110 J

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS025(Con)	CF15SS025(Con)	CF15SS025(Con)	CF15SS026 (Con)	CF15SS026 (Con)	CF15SS027(Con)	CF15SS027(Con)
SAMPLE NUMBER	CF15SS025DL [07/11/95]	CF15SB25 [07/11/95]	CF15SB25DL [07/11/95]	CF15SS026 [07/31/95]	CF15SS026D [07/31/95]	CF15SS027 [07/20/95]	CF15SS027 [07/26/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/11/1995	7/11/1995	7/31/1995	7/31/1995	7/20/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	790 U	400 U	800 U	440 U	450 U		410 U
CARBAZOLE	790 U	400 U	800 U	440 U	450 U		140 J
CHRYSENE	790 U	41 J	800 U	440 U	450 U		1500
DI-N-BUTYL PHTHALATE	3600	3900 J	3400	1900	3500		1400
DI-N-OCTYL PHTHALATE	790 U	400 U	800 U	440 U	450 U		410 U
DIBENZO(A,H)ANTHRACENE	790 U	400 U	800 U	440 U	450 U		200 J
DIBENZOFURAN	790 U	400 U	800 U	440 U	450 U		410 U
DIETHYL PHTHALATE	790 U	400 U	800 U	440 U	450 U		410 U
DIMETHYL PHTHALATE	790 U	400 U	800 U	440 U	450 U		410 U
FLUORANTHENE	790 U	55 J	800 U	86 J	70 J		2000
FLUORENE	790 U	400 U	800 U	440 U	450 U		410 U
HEXACHLOROBENZENE	790 U	400 U	800 U	440 U	450 U		410 U
HEXACHLOROBUTADIENE	790 U	400 U	800 U	440 U	450 U		410 U
HEXACHLOROCYCLOPENTADIENE	790 U	400 U	800 U	440 U	450 U		410 U
HEXACHLOROETHANE	790 U	400 U	800 U	440 U	450 U		410 U
INDENO(1,2,3-CD)PYRENE	790 U	400 U	800 U	440 U	450 U		540
ISOPHORONE	790 U	400 U	800 U	440 U	450 U		410 U
N-NITROSO-DI-N-PROPYLAMINE	790 U	400 U	800 U	440 U	450 U		410 U
N-NITROSODIPHENYLAMINE	790 U	400 U	800 U	440 U	450 U		410 U
NAPHTHALENE	790 U	400 U	800 U	440 U	450 U		28 J
NITROBENZENE	790 U	400 U	800 U	440 U	450 U		410 U
PENTACHLOROPHENOL	1900 U	960 U	1900 U	1100 U	1100 U		990 U
PHENANTHRENE	790 U	400 U	800 U	58 J	45 J		610
PHENOL	790 U	400 U	800 U	440 U	450 U		410 U
PYRENE	790 U	50 J	800 U	60 J	51 J		1700
Pesticides/PCBs (ug/kg)							
4,4'-DDD		4 U		4.5 U	4.5 U		4.1 U
4,4'-DDE		4 U		4.5 U	4.5 U		4.1 U
4,4'-DDT		4 U		4.5 U	4.5 U		4.1 U
ALDRIN		2 U		0.37 R	0.65 R		0.47 R
ALPHA-BHC		2 U		2.2 U	2.3 U		2.1 U
ALPHA-CHLORDANE		2 U		2.2 U	2.3 U		2.1 U
AROCLOR-1016		40 U		45 U	45 U		41 U
AROCLOR-1221		80 U		90 U	90 U		82 U
AROCLOR-1232		40 U		45 U	45 U		41 U
AROCLOR-1242		40 U		45 U	45 U		41 U
AROCLOR-1248		40 U		45 U	45 U		41 U
AROCLOR-1254		40 U		45 U	45 U		41 U

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS025(Con)	CF15SS025(Con)	CF15SS025(Con)	CF15SS026 (Con)	CF15SS026 (Con)	CF15SS027(Con)	CF15SS027(Con)
SAMPLE NUMBER	CF15SS025DL [07/11/95]	CF15SB25 [07/11/95]	CF15SB25DL [07/11/95]	CF15SS026 [07/31/95]	CF15SS026D [07/31/95]	CF15SS027 [07/20/95]	CF15SS027 [07/26/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/11/1995	7/11/1995	7/31/1995	7/31/1995	7/20/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
AROCLOR-1260		40 U		45 U	45 U		41 U
BETA-BHC		2 U		2.2 U	2.3 U		2.1 U
DELTA-BHC		2 U		2.2 U	2.3 U		2.1 U
DIELDRIN		4 U		4.5 UJ	4.5 UJ		4.1 U
ENDOSULFAN I		2 U		2.2 U	2.3 U		2.1 U
ENDOSULFAN II		4 U		4.5 U	1.9 J		4.1 U
ENDOSULFAN SULFATE		4 U		4.5 U	4.5 U		4.1 U
ENDRIN		4 U		4.5 UJ	4.5 UJ		4.1 U
ENDRIN ALDEHYDE		4 U		4.5 U	4.5 U		4.1 U
ENDRIN KETONE		4 U		4.5 U	3 U		4.1 U
GAMMA-BHC (LINDANE)		2 U		2.2 UJ	2.3 UJ		2.1 U
GAMMA-CHLORDANE		2 U		2.2 U	2.3 U		2.1 U
HEPTACHLOR		2 U		2.2 U	2.3 U		2.1 U
HEPTACHLOR EPOXIDE		2 U		2.2 U	2.3 U		2.1 U
METHOXYCHLOR		20 U		22 U	23 U		21 U
TOXAPHENE		200 U		220 U	230 U		210 U
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE		250 U		250 U	250 U		250 UJ
2-AMINO-4,6-DINITROTOLUENE		250 U		250 U	250 U		250 U
2-NITROTOLUENE		500 U		500 U	500 U		500 UJ
3-NITROTOLUENE		500 U		500 U	500 U		500 U
4-AMINO-2,6-DINITROTOLUENE		250 U		250 U	250 U		250 U
4-NITROTOLUENE		500 U		500 U	500 U		500 U
HMX		500 U		500 U	500 U		500 U
RDX		500 U		500 U	500 U		500 UJ
TETRYL		500 U		500 U	500 U		500 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS		12 U		13 U	14 U		12 U
Inorganics (mg/kg)							
ALUMINUM		224		1410 J	1600 J		150 J
ANTIMONY		0.47 U		25.7	29.6		6.5
ARSENIC		0.94 U		25.2	18.4		3.1 J
BARIUM		0.75		1.1	1.2		4.8
BERYLLIUM		0.24 U		0.27 U	0.27 U		0.25 U
CADMIUM		0.24 U		0.27 U	0.27 U		0.25 U
CALCIUM		140 U		131	123 U		232
CHROMIUM		2.7 U		1.7 U	1.9 U		0.77 U
COBALT		0.24 U		0.27 UJ	0.27 UJ		0.25 UJ

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS025(Con)	CF15SS025(Con)	CF15SS025(Con)	CF15SS026 (Con)	CF15SS026 (Con)	CF15SS027(Con)	CF15SS027(Con)
SAMPLE NUMBER	CF15SS025DL [07/11/95]	CF15SB25 [07/11/95]	CF15SB25DL [07/11/95]	CF15SS026 [07/31/95]	CF15SS026D [07/31/95]	CF15SS027 [07/20/95]	CF15SS027 [07/26/95]
DEPTH	0-1	1-3	1-3	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/11/1995	7/11/1995	7/31/1995	7/31/1995	7/20/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
COPPER		0.71 U		2.3 U	2.1 U		4 U
IRON		114		417	432		89.8 J
LEAD		19.1		3490	3160		1200
MAGNESIUM		14.3 U		27 UJ	36.9 UJ		16.2 U
MANGANESE		1.8		1.2	1.4		1.2
MERCURY		0.12 U		0.13 U	0.14 U		0.12 U
NICKEL		0.71 U		0.81 U	0.81 U		0.74 U
POTASSIUM		21.7 U		24.7 U	24.9 U		22.7 U
SELENIUM		0.94 U		1.1 UJ	1.1 UJ		0.99 UJ
SILVER		0.24 U		0.27 U	0.27 U		0.25 U
SODIUM		164 U		214 J	195 J		155 UJ
THALLIUM		1.2 U		1.3 UJ	1.4 UJ		1.2 U
VANADIUM		0.49		1.5	1.6		0.38 J
ZINC		5.1 U		2 U	2.7 U		3.6 U
Miscellaneous Parameters (mg/kg)							
CYANIDE		0.18 U		0.2 U	0.2 U		0.22 U
TOTAL ORGANIC CARBON				20000	20000		

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS029 (Con)	CF15SS030(Con)	CF15SS031 (Con)	CF15SS032 (Con)
SAMPLE NUMBER	CF15SS028 [07/12/95]	CF15SS028DL [07/12/95]	CF15SS028RE [07/12/95]	CF15SS029 [07/11/95]	CF15SS030 [07/18/95]	CF15SS031 [07/06/95]	CF15SS032 [07/11/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/11/1995	7/18/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE	6 U			6 U	7 U	6 U	6 U
1,1,2,2-TETRACHLOROETHANE	6 U			6 U	7 U	6 U	6 U
1,1,2-TRICHLOROETHANE	6 U			6 U	7 U	6 U	6 U
1,1-DICHLOROETHANE	6 U			6 U	7 U	6 U	6 U
1,1-DICHLOROETHENE	6 U			6 U	7 U	6 U	6 U
1,2-DICHLOROETHANE	6 U			6 U	7 U	6 U	6 U
1,2-DICHLOROPROPANE	6 U			6 U	7 U	6 U	6 U
2-BUTANONE	11 U			12 U	13 U	12 U	12 U
2-HEXANONE	11 U			12 U	13 U	12 U	12 U
4-METHYL-2-PENTANONE	11 U			12 U	13 U	12 U	12 U
ACETONE	11 U			12 U	13 U	12 U	12 U
BENZENE	6 U			6 U	7 U	6 U	6 U
BROMODICHLOROMETHANE	6 U			6 U	7 U	6 U	6 U
BROMOFORM	6 U			6 U	7 U	6 U	6 U
BROMOMETHANE	11 U			12 U	13 U	12 U	12 U
CARBON DISULFIDE	6 U			6 U	7 U	6 U	6 U
CARBON TETRACHLORIDE	6 U			6 U	7 U	6 U	6 U
CHLOROBENZENE	6 U			6 U	7 U	6 U	6 U
CHLORODIBROMOMETHANE	6 U			6 U	7 U	6 U	6 U
CHLOROETHANE	11 U			12 U	13 U	12 U	12 U
CHLOROFORM	6 U			6 U	7 U	6 U	6 U
CHLOROMETHANE	11 U			12 U	13 U	12 U	12 U
CIS-1,3-DICHLOROPROPENE	6 U			6 U	7 U	6 U	6 U
ETHYLBENZENE	6 U			6 U	7 U	6 U	6 U
METHYLENE CHLORIDE	6 U			6 U	7 U	6 U	6 U
STYRENE	6 U			6 U	7 U	6 U	6 U
TETRACHLOROETHENE	6 U			6 U	7 U	6 U	6 U
TOLUENE	6 U			6 U	7 U	6 U	6 U
TOTAL 1,2-DICHLOROETHENE	6 U			6 U	7 U	6 U	6 U
TOTAL XYLENES	6 U			6 U	7 U	2 J	6 U
TRANS-1,3-DICHLOROPROPENE	6 U			6 U	7 U	6 U	6 U
TRICHLOROETHENE	6 U			6 U	7 U	6 U	6 U
VINYL CHLORIDE	11 U			12 U	13 U	12 U	12 U
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE	370 U		370 U	380 U	440 U	420 U	380 U
1,2-DICHLOROBENZENE	370 U		370 U	380 U	440 U	420 U	380 U
1,3,5-TRINITROBENZENE	250 U			250 U	250 U	250 U	250 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS029 (Con)	CF15SS030(Con)	CF15SS031 (Con)	CF15SS032 (Con)
SAMPLE NUMBER	CF15SS028 [07/12/95]	CF15SS028DL [07/12/95]	CF15SS028RE [07/12/95]	CF15SS029 [07/11/95]	CF15SS030 [07/18/95]	CF15SS031 [07/06/95]	CF15SS032 [07/11/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/11/1995	7/18/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE	370 U		370 U	380 U	440 U	420 U	380 U
1,3-DINITROBENZENE	250 U			250 U	250 U	250 U	250 U
1,4-DICHLOROBENZENE	370 U		370 U	380 U	440 U	420 U	380 U
2,2'-OXYBIS(1-CHLOROPROPANE)	370 U		370 U	380 U	440 U	420 U	380 U
2,4,5-TRICHLOROPHENOL	890 U		890 U	930 U	1100 U	1000 U	920 U
2,4,6-TRICHLOROPHENOL	370 U		370 U	380 U	440 U	420 U	380 U
2,4-DICHLOROPHENOL	370 U		370 U	380 U	440 U	420 U	380 U
2,4-DIMETHYLPHENOL	370 U		370 U	380 U	440 U	420 U	380 U
2,4-DINITROPHENOL	890 U		890 U	930 U	1100 U	1000 U	920 U
2,4-DINITROTOLUENE	370 U		370 U	380 U	440 U	420 U	380 U
2,6-DINITROTOLUENE	370 U		370 U	380 U	440 U	420 U	380 U
2-CHLORONAPHTHALENE	370 U		370 U	380 U	440 U	420 U	380 U
2-CHLOROPHENOL	370 U		370 U	380 U	440 U	420 U	380 U
2-METHYLNAPHTHALENE	370 U		370 U	380 U	440 U	420 U	380 U
2-METHYLPHENOL	370 U		370 U	380 U	440 U	420 U	380 U
2-NITROANILINE	890 U		890 U	930 U	1100 U	1000 U	920 U
2-NITROPHENOL	370 U		370 U	380 U	440 U	420 U	380 U
3,3'-DICHLOROBENZIDINE	370 UJ		370 U	380 U	440 U	420 U	380 U
3-NITROANILINE	890 U		890 U	930 U	1100 U	1000 U	920 U
4,6-DINITRO-2-METHYLPHENOL	890 U		890 U	930 U	1100 U	1000 U	920 U
4-BROMOPHENYL PHENYL ETHER	370 U		370 U	380 U	440 U	420 U	380 U
4-CHLORO-3-METHYLPHENOL	370 U		370 U	380 U	440 U	420 U	380 U
4-CHLOROANILINE	370 U		370 U	380 U	440 U	420 U	380 U
4-CHLOROPHENYL PHENYL ETHER	370 U		370 U	380 U	440 U	420 U	380 U
4-METHYLPHENOL	370 U		370 U	380 U	440 U	420 U	380 U
4-NITROANILINE	890 U		890 U	930 U	1100 U	1000 U	920 U
4-NITROPHENOL	890 U		890 U	930 U	1100 U	1000 U	920 U
ACENAPHTHENE	31 J		32 J	380 U	440 U	420 U	380 U
ACENAPHTHYLENE	370 U		370 U	380 U	440 U	420 U	380 U
ANTHRACENE	73 J		67 J	20 J	440 U	420 U	380 U
BENZO(A)ANTHRACENE	760 J		720	260 J	440 U	420 U	380 U
BENZO(A)PYRENE	810 J		830 J	270 J	440 U	420 U	380 U
BENZO(B)FLUORANTHENE	1200 J		1300 J	360 J	440 U	420 U	380 U
BENZO(G,H,I)PERYLENE	250 J		280 J	160 J	440 U	420 U	380 U
BENZO(K)FLUORANTHENE	370 J		380 J	140 J	440 U	420 U	380 U
BIS(2-CHLOROETHOXY)METHANE	370 U		370 U	380 U	440 U	420 U	380 U
BIS(2-CHLOROETHYL)ETHER	370 U		370 U	380 U	440 U	420 U	380 U
BIS(2-ETHYLHEXYL)PHTHALATE	370 UJ		370 U	510	440 U	520	27 J

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS029 (Con)	CF15SS030(Con)	CF15SS031 (Con)	CF15SS032 (Con)
SAMPLE NUMBER	CF15SS028 [07/12/95]	CF15SS028DL [07/12/95]	CF15SS028RE [07/12/95]	CF15SS029 [07/11/95]	CF15SS030 [07/18/95]	CF15SS031 [07/06/95]	CF15SS032 [07/11/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/11/1995	7/18/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	370 UJ		370 U	280 J	440 U	330 J	380 U
CARBAZOLE	84 J		69 J	21 J	440 U	420 U	380 U
CHRYSENE	790 J		830	310 J	440 U	420 U	380 U
DI-N-BUTYL PHTHALATE	61 J		65 J	2600	3200	2200	3100 J
DI-N-OCTYL PHTHALATE	370 UJ		370 UJ	380 U	440 U	420 U	380 U
DIBENZO(A,H)ANTHRACENE	130 J		150 J	52 J	440 U	420 U	380 U
DIBENZOFURAN	370 U		370 U	380 U	440 U	420 U	380 U
DIETHYL PHTHALATE	370 U		370 U	380 U	440 U	420 U	380 U
DIMETHYL PHTHALATE	370 U		370 U	380 U	440 U	420 U	380 U
FLUORANTHENE	1000		1100	320 J	440 U	420 U	380 U
FLUORENE	370 U		370 U	380 U	440 U	420 U	380 U
HEXACHLOROBENZENE	370 U		370 U	380 U	440 U	420 U	380 U
HEXACHLOROBUTADIENE	370 U		370 U	380 U	440 U	420 U	380 U
HEXACHLOROCYCLOPENTADIENE	370 U		370 U	380 U	440 U	420 U	380 U
HEXACHLOROETHANE	370 U		370 U	380 U	440 U	420 U	380 U
INDENO(1,2,3-CD)PYRENE	350 J		420 J	150 J	440 U	420 U	380 U
ISOPHORONE	370 U		370 U	380 U	440 U	420 U	380 U
N-NITROSO-DI-N-PROPYLAMINE	370 U		370 U	380 U	440 U	420 U	380 U
N-NITROSODIPHENYLAMINE	370 U		370 U	380 U	440 U	420 U	380 U
NAPHTHALENE	24 J		25 J	380 U	440 U	420 U	380 U
NITROBENZENE	370 U		370 U	380 U	440 U	420 U	380 U
PENTACHLOROPHENOL	890 U		890 U	930 U	1100 U	1000 U	920 U
PHENANTHRENE	360 J		360 J	110 J	440 U	420 U	380 U
PHENOL	370 U		370 U	380 U	440 U	420 U	380 U
PYRENE	750 J		860	320 J	440 U	420 U	380 U
Pesticides/PCBs (ug/kg)							
4,4'-DDD	370 UJ	3700 UJ		3.9 U	4.4 U	4.2 U	3.8 U
4,4'-DDE	370 UJ	3700 UJ		3.9 U	4.4 U	4.2 U	3.8 U
4,4'-DDT	370 UJ	3700 UJ		3.9 U	4.4 U	4.2 U	3.8 U
ALDRIN	180 UJ	1800 UJ		1.9 U	2.2 U	2.1 UJ	1.9 U
ALPHA-BHC	180 UJ	1800 UJ		1.9 U	2.2 U	2.1 U	1.9 U
ALPHA-CHLORDANE	180 UJ	1800 UJ		1.9 U	0.3 U	2.1 U	1.9 U
AROCLOR-1016	3700 UJ	37000 UJ		39 U	44 U	42 U	38 U
AROCLOR-1221	7400 UJ	74000 UJ		78 U	88 U	84 U	77 U
AROCLOR-1232	3700 UJ	37000 UJ		39 U	44 U	42 U	38 U
AROCLOR-1242	3700 UJ	37000 UJ		39 U	44 U	42 U	38 U
AROCLOR-1248	3700 UJ	37000 UJ		39 U	44 U	42 U	38 U
AROCLOR-1254	3700 UJ	37000 UJ		39 U	44 U	42 U	38 U

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS029 (Con)	CF15SS030(Con)	CF15SS031 (Con)	CF15SS032 (Con)
SAMPLE NUMBER	CF15SS028 [07/12/95]	CF15SS028DL [07/12/95]	CF15SS028RE [07/12/95]	CF15SS029 [07/11/95]	CF15SS030 [07/18/95]	CF15SS031 [07/06/95]	CF15SS032 [07/11/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/11/1995	7/18/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260	3700 UJ	37000 UJ		39 U	44 U	42 U	38 U
BETA-BHC	180 UJ	1800 UJ		1.9 U	2.2 U	2.1 U	1.9 U
DELTA-BHC	180 UJ	1800 UJ		1.9 U	2.2 U	2.1 U	1.9 U
DIELDRIN	370 UJ	3700 UJ		0.37 J	4.4 U	4.2 U	3.8 U
ENDOSULFAN I	180 UJ	1800 UJ		1.9 U	2.2 U	2.1 U	1.9 U
ENDOSULFAN II	370 UJ	3700 UJ		3.9 U	4.4 U	0.14 R	3.8 U
ENDOSULFAN SULFATE	370 UJ	3700 UJ		3.9 U	4.4 U	4.2 U	3.8 U
ENDRIN	370 UJ	3700 UJ		3.9 U	4.4 U	4.2 U	3.8 U
ENDRIN ALDEHYDE	370 UJ	3700 UJ		3.9 U	4.4 U	4.2 U	3.8 U
ENDRIN KETONE	370 UJ	3700 UJ		3.9 U	4.4 U	4.2 U	3.8 U
GAMMA-BHC (LINDANE)	180 UJ	1800 UJ		1.9 U	2.2 U	2.1 U	1.9 U
GAMMA-CHLORDANE	180 UJ	1800 UJ		1.9 U	2.2 U	2.1 U	1.9 U
HEPTACHLOR	180 UJ	1800 UJ		1.9 U	2.2 U	2.1 UJ	1.9 U
HEPTACHLOR EPOXIDE	180 UJ	1800 UJ		1.9 U	2.2 U	2.1 U	1.9 U
METHOXYCHLOR	1800 UJ	18000 UJ		19 U	22 U	21 U	19 U
TOXAPHENE	18000 UJ	180000 UJ		190 U	220 U	210 U	190 U
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE	250 U			250 U	250 U	250 U	250 U
2-AMINO-4,6-DINITROTOLUENE	250 U			250 U	250 U	250 U	250 U
2-NITROTOLUENE	500 U			500 U	500 U	500 U	500 U
3-NITROTOLUENE	500 U			500 U	500 U	500 U	500 U
4-AMINO-2,6-DINITROTOLUENE	250 U			250 U	250 U	250 U	250 U
4-NITROTOLUENE	500 U			500 U	500 U	4340	500 U
HMX	500 U			500 U	500 U	500 U	500 U
RDX	500 U			500 U	500 U	500 U	500 U
TETRYL	500 U			500 U	500 U	500 U	500 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS	38			28	26	13 UJ	34
Inorganics (mg/kg)							
ALUMINUM	321			534	2220	969	49.7 U
ANTIMONY	0.46 J			0.74	3.1 U	5 U	2.3
ARSENIC	0.89 U			0.92 U	1.7	1 UJ	0.92 U
BARIUM	6.9			1.6	2.9	1.2	0.88
BERYLLIUM	0.22 U			0.23 U	0.27 U	0.25 U	0.23 U
CADMIUM	0.22 U			0.23 U	0.27 U	0.25 U	0.23 U
CALCIUM	754 J			127 U	160 U	38.3 J	128 U
CHROMIUM	1 U			0.83 U	2.8	2.3 U	0.41 U
COBALT	0.22 U			0.23 U	0.28 J	1.5 U	0.23 U

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS028 (Con)	CF15SS029 (Con)	CF15SS030(Con)	CF15SS031 (Con)	CF15SS032 (Con)
SAMPLE NUMBER	CF15SS028 [07/12/95]	CF15SS028DL [07/12/95]	CF15SS028RE [07/12/95]	CF15SS029 [07/11/95]	CF15SS030 [07/18/95]	CF15SS031 [07/06/95]	CF15SS032 [07/11/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/12/1995	7/12/1995	7/12/1995	7/11/1995	7/18/1995	7/6/1995	7/11/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER	0.67 U			0.69 U	0.8 U	0.76 U	0.69 U
IRON	116			74.5	418	258 J	43.6 U
LEAD	27.3	27.3		21.2	520 J	2.5 J	814
MAGNESIUM	35.9 U			17.6 U	63.8	29.1 U	13.4 U
MANGANESE	2			0.64	2.2 U	0.68 U	0.52
MERCURY	0.11 U			0.12 U	0.13 U	0.13 U	0.12 U
NICKEL	0.67 U			0.69 U	1.2 J	3 U	0.69 U
POTASSIUM	20.5 U			21.1 U	40.2	31.5 U	21.2 U
SELENIUM	0.89 U			0.92 U	1.1 U	1 U	0.92 U
SILVER	0.22 U			0.23 U	0.27 U	1 U	0.23 U
SODIUM	122 U			262 J	252 U	168 J	201 U
THALLIUM	1.1 U			1.1 U	1.3 U	1.3 U	1.2 U
VANADIUM	0.61			0.62	2.8	0.76 U	0.28 J
ZINC	4.7 U			2.6 U	1.7 U	1 UJ	1.9 U
Miscellaneous Parameters (mg/kg)							
CYANIDE	0.16 U			0.15 U	0.27	0.39 UJ	0.16 U
TOTAL ORGANIC CARBON							

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS032 (Con)	CF15SS033 (Con)	CF15SS034 (Con)	CF15SS035 (Con)	CF15SS036 (Con)	CF15SS037 (Con)	CF15SS038 (Con)
SAMPLE NUMBER	CF15SS032DL [07/11/95]	CF15SS033 [07/19/95]	CF15SS034 [07/18/95]	CF15SS035	CF15SS036 [07/19/95]	CF15SS037 [07/26/95]	CF15SS038 [07/26/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/19/1995	7/18/1995	7/19/1995	7/19/1995	7/26/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
1,2-DICHLOROPROPANE							
2-BUTANONE							
2-HEXANONE							
4-METHYL-2-PENTANONE							
ACETONE							
BENZENE							
BROMODICHLOROMETHANE							
BROMOFORM							
BROMOMETHANE							
CARBON DISULFIDE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLORODIBROMOMETHANE							
CHLOROETHANE							
CHLOROFORM							
CHLOROMETHANE							
CIS-1,3-DICHLOROPROPENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
STYRENE							
TETRACHLOROETHENE							
TOLUENE							
TOTAL 1,2-DICHLOROETHENE							
TOTAL XYLENES							
TRANS-1,3-DICHLOROPROPENE							
TRICHLOROETHENE							
VINYL CHLORIDE							
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE	760 U						
1,2-DICHLOROBENZENE	760 U						
1,3,5-TRINITROBENZENE							

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS032 (Con)	CF15SS033 (Con)	CF15SS034 (Con)	CF15SS035 (Con)	CF15SS036 (Con)	CF15SS037 (Con)	CF15SS038 (Con)
SAMPLE NUMBER	CF15SS032DL [07/11/95]	CF15SS033 [07/19/95]	CF15SS034 [07/18/95]	CF15SS035	CF15SS036 [07/19/95]	CF15SS037 [07/26/95]	CF15SS038 [07/26/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/19/1995	7/18/1995	7/19/1995	7/19/1995	7/26/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE	760 U						
1,3-DINITROBENZENE							
1,4-DICHLOROBENZENE	760 U						
2,2'-OXYBIS(1-CHLOROPROPANE)	760 U						
2,4,5-TRICHLOROPHENOL	1800 U						
2,4,6-TRICHLOROPHENOL	760 U						
2,4-DICHLOROPHENOL	760 U						
2,4-DIMETHYLPHENOL	760 U						
2,4-DINITROPHENOL	1800 U						
2,4-DINITROTOLUENE	760 U						
2,6-DINITROTOLUENE	760 U						
2-CHLORONAPHTHALENE	760 U						
2-CHLOROPHENOL	760 U						
2-METHYLNAPHTHALENE	760 U						
2-METHYLPHENOL	760 U						
2-NITROANILINE	1800 U						
2-NITROPHENOL	760 U						
3,3'-DICHLOROBENZIDINE	760 U						
3-NITROANILINE	1800 U						
4,6-DINITRO-2-METHYLPHENOL	1800 U						
4-BROMOPHENYL PHENYL ETHER	760 U						
4-CHLORO-3-METHYLPHENOL	760 U						
4-CHLOROANILINE	760 U						
4-CHLOROPHENYL PHENYL ETHER	760 U						
4-METHYLPHENOL	760 U						
4-NITROANILINE	1800 U						
4-NITROPHENOL	1800 U						
ACENAPHTHENE	760 U						
ACENAPHTHYLENE	760 U						
ANTHRACENE	760 U						
BENZO(A)ANTHRACENE	760 U						
BENZO(A)PYRENE	760 U						
BENZO(B)FLUORANTHENE	760 U						
BENZO(G,H,I)PERYLENE	760 U						
BENZO(K)FLUORANTHENE	760 U						
BIS(2-CHLOROETHOXY)METHANE	760 U						
BIS(2-CHLOROETHYL)ETHER	760 U						
BIS(2-ETHYLHEXYL)PHTHALATE	760 U						

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS032 (Con)	CF15SS033 (Con)	CF15SS034 (Con)	CF15SS035 (Con)	CF15SS036 (Con)	CF15SS037 (Con)	CF15SS038 (Con)
SAMPLE NUMBER	CF15SS032DL [07/11/95]	CF15SS033 [07/19/95]	CF15SS034 [07/18/95]	CF15SS035	CF15SS036 [07/19/95]	CF15SS037 [07/26/95]	CF15SS038 [07/26/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/19/1995	7/18/1995	7/19/1995	7/19/1995	7/26/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	760 U						
CARBAZOLE	760 U						
CHRYSENE	760 U						
DI-N-BUTYL PHTHALATE	2900						
DI-N-OCTYL PHTHALATE	760 U						
DIBENZO(A,H)ANTHRACENE	760 U						
DIBENZOFURAN	760 U						
DIETHYL PHTHALATE	760 U						
DIMETHYL PHTHALATE	760 U						
FLUORANTHENE	760 U						
FLUORENE	760 U						
HEXACHLOROBENZENE	760 U						
HEXACHLOROBUTADIENE	760 U						
HEXACHLOROCYCLOPENTADIENE	760 U						
HEXACHLOROETHANE	760 U						
INDENO(1,2,3-CD)PYRENE	760 U						
ISOPHORONE	760 U						
N-NITROSO-DI-N-PROPYLAMINE	760 U						
N-NITROSODIPHENYLAMINE	760 U						
NAPHTHALENE	760 U						
NITROBENZENE	760 U						
PENTACHLOROPHENOL	1800 U						
PHENANTHRENE	760 U						
PHENOL	760 U						
PYRENE	760 U						
Pesticides/PCBs (ug/kg)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
AROCLOR-1016							
AROCLOR-1221							
AROCLOR-1232							
AROCLOR-1242							
AROCLOR-1248							
AROCLOR-1254							

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS032 (Con)	CF15SS033 (Con)	CF15SS034 (Con)	CF15SS035 (Con)	CF15SS036 (Con)	CF15SS037 (Con)	CF15SS038 (Con)
SAMPLE NUMBER	CF15SS032DL [07/11/95]	CF15SS033 [07/19/95]	CF15SS034 [07/18/95]	CF15SS035	CF15SS036 [07/19/95]	CF15SS037 [07/26/95]	CF15SS038 [07/26/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/19/1995	7/18/1995	7/19/1995	7/19/1995	7/26/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							
HEPTACHLOR EPOXIDE							
METHOXYCHLOR							
TOXAPHENE							
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE							
2-AMINO-4,6-DINITROTOLUENE							
2-NITROTOLUENE							
3-NITROTOLUENE							
4-AMINO-2,6-DINITROTOLUENE							
4-NITROTOLUENE							
HMX							
RDX							
TETRYL							
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS							
Inorganics (mg/kg)							
ALUMINUM							
ANTIMONY							
ARSENIC							
BARIUM							
BERYLLIUM							
CADMIUM							
CALCIUM							
CHROMIUM							
COBALT							

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS032 (Con)	CF15SS033 (Con)	CF15SS034 (Con)	CF15SS035 (Con)	CF15SS036 (Con)	CF15SS037 (Con)	CF15SS038 (Con)
SAMPLE NUMBER	CF15SS032DL [07/11/95]	CF15SS033 [07/19/95]	CF15SS034 [07/18/95]	CF15SS035	CF15SS036 [07/19/95]	CF15SS037 [07/26/95]	CF15SS038 [07/26/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/11/1995	7/19/1995	7/18/1995	7/19/1995	7/19/1995	7/26/1995	7/26/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER							
IRON							
LEAD		42.4 J	325 J	3580	93 J	1580	29.8
MAGNESIUM							
MANGANESE							
MERCURY							
NICKEL							
POTASSIUM							
SELENIUM							
SILVER							
SODIUM							
THALLIUM							
VANADIUM							
ZINC							
Miscellaneous Parameters (mg/kg)							
CYANIDE							
TOTAL ORGANIC CARBON							

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS039 (Con)	CF15SS039 (Con)	CF15SS040 (Con)	CF15SS041 (Con)	CF15SS042 (Con)	CF15SS043 (Con)	CF15SS043 (Con)
SAMPLE NUMBER	CF15SS039 [07/11/95]	CF15SS039DL [07/11/95]	CF15SS040 [07/10/95]	CF15SS041 [07/18/95]	CF15SS042 [07/26/95]	CF15SS043 [08/01/95]	CF15SB43 [07/12/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/11/1995	7/10/1995	7/18/1995	7/26/1995	8/1/1995	7/12/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DICHLOROETHANE							
1,2-DICHLOROPROPANE							
2-BUTANONE							
2-HEXANONE							
4-METHYL-2-PENTANONE							
ACETONE							
BENZENE							
BROMODICHLOROMETHANE							
BROMOFORM							
BROMOMETHANE							
CARBON DISULFIDE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLORODIBROMOMETHANE							
CHLOROETHANE							
CHLOROFORM							
CHLOROMETHANE							
CIS-1,3-DICHLOROPROPENE							
ETHYLBENZENE							
METHYLENE CHLORIDE							
STYRENE							
TETRACHLOROETHENE							
TOLUENE							
TOTAL 1,2-DICHLOROETHENE							
TOTAL XYLENES							
TRANS-1,3-DICHLOROPROPENE							
TRICHLOROETHENE							
VINYL CHLORIDE							
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE			420 U				
1,2-DICHLOROBENZENE			420 U				
1,3,5-TRINITROBENZENE					2500 U	250 U	250 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS039 (Con)	CF15SS039 (Con)	CF15SS040 (Con)	CF15SS041 (Con)	CF15SS042 (Con)	CF15SS043 (Con)	CF15SS043 (Con)
SAMPLE NUMBER	CF15SS039 [07/11/95]	CF15SS039DL [07/11/95]	CF15SS040 [07/10/95]	CF15SS041 [07/18/95]	CF15SS042 [07/26/95]	CF15SS043 [08/01/95]	CF15SB43 [07/12/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/11/1995	7/10/1995	7/18/1995	7/26/1995	8/1/1995	7/12/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE			420 U				
1,3-DINITROBENZENE					2500 U	250 U	250 U
1,4-DICHLOROBENZENE			420 U				
2,2'-OXYBIS(1-CHLOROPROPANE)			420 U				
2,4,5-TRICHLOROPHENOL			1000 U				
2,4,6-TRICHLOROPHENOL			420 U				
2,4-DICHLOROPHENOL			420 U				
2,4-DIMETHYLPHENOL			420 U				
2,4-DINITROPHENOL			1000 U				
2,4-DINITROTOLUENE			420 U		2000 U	200 U	200 U
2,6-DINITROTOLUENE			420 U		2000 U	200 U	200 U
2-CHLORONAPHTHALENE			420 U				
2-CHLOROPHENOL			420 U				
2-METHYLNAPHTHALENE	53 J	1500 U	420 U	1000 U			
2-METHYLPHENOL			420 U				
2-NITROANILINE			1000 U				
2-NITROPHENOL			420 U				
3,3'-DICHLOROBENZIDINE			420 U				
3-NITROANILINE			1000 U				
4,6-DINITRO-2-METHYLPHENOL			1000 U				
4-BROMOPHENYL PHENYL ETHER			420 U				
4-CHLORO-3-METHYLPHENOL			420 U				
4-CHLOROANILINE			420 U				
4-CHLOROPHENYL PHENYL ETHER			420 U				
4-METHYLPHENOL			420 U				
4-NITROANILINE			1000 U				
4-NITROPHENOL			1000 U				
ACENAPHTHENE	250 J	170 J	420 U	86 J			
ACENAPHTHYLENE	380 U	1500 U	420 U	1000 U			
ANTHRACENE	540	360 J	420 U	190 J			
BENZO(A)ANTHRACENE	5100 J	3600	52 J	3000 J			
BENZO(A)PYRENE	5400 J	4300	54 J	3300 J			
BENZO(B)FLUORANTHENE	8600 J	5800	72 J	4600 J			
BENZO(G,H,I)PERYLENE	2300	2700	420 U	1200			
BENZO(K)FLUORANTHENE	3300 J	2100	31 J	2300 J			
BIS(2-CHLOROETHOXY)METHANE			420 U				
BIS(2-CHLOROETHYL)ETHER			420 U				
BIS(2-ETHYLHEXYL)PHTHALATE			420 U				

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS039 (Con)	CF15SS039 (Con)	CF15SS040 (Con)	CF15SS041 (Con)	CF15SS042 (Con)	CF15SS043 (Con)	CF15SS043 (Con)
SAMPLE NUMBER	CF15SS039 [07/11/95]	CF15SS039DL [07/11/95]	CF15SS040 [07/10/95]	CF15SS041 [07/18/95]	CF15SS042 [07/26/95]	CF15SS043 [08/01/95]	CF15SB43 [07/12/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/11/1995	7/10/1995	7/18/1995	7/26/1995	8/1/1995	7/12/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE			420 U				
CARBAZOLE			420 U				
CHRYSENE	5500 J	4400	54 J	3400 J			
DI-N-BUTYL PHTHALATE			750				
DI-N-OCTYL PHTHALATE			420 U				
DIBENZO(A,H)ANTHRACENE	380 U	860 J	420 U	520 J			
DIBENZOFURAN			420 U				
DIETHYL PHTHALATE			420 U				
DIMETHYL PHTHALATE			420 U				
FLUORANTHENE	8100 J	5400	73 J	3200 J			
FLUORENE	100 J	1500 U	420 U	1000 U			
HEXACHLOROBENZENE			420 U				
HEXACHLOROBUTADIENE			420 U				
HEXACHLOROCYCLOPENTADIENE			420 U				
HEXACHLOROETHANE			420 U				
INDENO(1,2,3-CD)PYRENE	2200	2400	26 J	1200			
ISOPHORONE			420 U				
N-NITROSO-DI-N-PROPYLAMINE			420 U				
N-NITROSODIPHENYLAMINE			420 U				
NAPHTHALENE	200 J	130 J	420 U	86 J			
NITROBENZENE			420 U		3000 U	300 U	3 U
PENTACHLOROPHENOL			1000 U				
PHENANTHRENE	2400	1800	420 U	780 J			
PHENOL			420 U				
PYRENE	6300 J	4500	50 J	2300 J			
Pesticides/PCBs (ug/kg)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
AROCLOR-1016							
AROCLOR-1221							
AROCLOR-1232							
AROCLOR-1242							
AROCLOR-1248							
AROCLOR-1254							

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS039 (Con)	CF15SS039 (Con)	CF15SS040 (Con)	CF15SS041 (Con)	CF15SS042 (Con)	CF15SS043 (Con)	CF15SS043 (Con)
SAMPLE NUMBER	CF15SS039 [07/11/95]	CF15SS039DL [07/11/95]	CF15SS040 [07/10/95]	CF15SS041 [07/18/95]	CF15SS042 [07/26/95]	CF15SS043 [08/01/95]	CF15SB43 [07/12/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/11/1995	7/10/1995	7/18/1995	7/26/1995	8/1/1995	7/12/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							
HEPTACHLOR EPOXIDE							
METHOXYCHLOR							
TOXAPHENE							
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE					2500 U	250 U	250 U
2-AMINO-4,6-DINITROTOLUENE					2500 U	250 U	250 U
2-NITROTOLUENE					5000 U	500 U	500 U
3-NITROTOLUENE					5000 U	500 U	500 U
4-AMINO-2,6-DINITROTOLUENE					2500 U	250 U	250 U
4-NITROTOLUENE					5000 U	500 U	500 U
HMX					5000 U	500 U	500 U
RDX					5000 U	500 U	500 U
TETRYL					5000 U	500 U	500 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS							
Inorganics (mg/kg)							
ALUMINUM							
ANTIMONY							
ARSENIC							
BARIUM							
BERYLLIUM							
CADMIUM							
CALCIUM							
CHROMIUM							
COBALT							

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS039 (Con)	CF15SS039 (Con)	CF15SS040 (Con)	CF15SS041 (Con)	CF15SS042 (Con)	CF15SS043 (Con)	CF15SS043 (Con)
SAMPLE NUMBER	CF15SS039 [07/11/95]	CF15SS039DL [07/11/95]	CF15SS040 [07/10/95]	CF15SS041 [07/18/95]	CF15SS042 [07/26/95]	CF15SS043 [08/01/95]	CF15SB43 [07/12/95]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	1-3
SAMPLE DATE	7/11/1995	7/11/1995	7/10/1995	7/18/1995	7/26/1995	8/1/1995	7/12/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER							
IRON							
LEAD							
MAGNESIUM							
MANGANESE							
MERCURY							
NICKEL							
POTASSIUM							
SELENIUM							
SILVER							
SODIUM							
THALLIUM							
VANADIUM							
ZINC							
Miscellaneous Parameters (mg/kg)							
CYANIDE							
TOTAL ORGANIC CARBON							

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS044 (Con)	CF15SS044 (Con)	CF15SS045	CF15SS045	CF15SS045 (Con)	CF15SS046 (Con)	CF15SS047 (Con)
SAMPLE NUMBER	CF15SS044 [08/01/95]	CF15SB44 [07/10/95]	CF15SS045 [08/01/95]	CF15SS045RE [08/01/95]	CF15SB45 [07/11/95]	CF15SS046 [07/31/95]	CF15SS047 [07/31/95]
DEPTH	0-1	1-3	0-1	0-1	1-3	0-1	0-1
SAMPLE DATE	8/1/1995	7/10/1995	8/1/1995	8/1/1995	7/11/1995	7/31/1995	7/31/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)							
1,1,1-TRICHLOROETHANE						8 U	6 U
1,1,2,2-TETRACHLOROETHANE						8 U	6 U
1,1,2-TRICHLOROETHANE						8 U	6 U
1,1-DICHLOROETHANE						8 U	6 U
1,1-DICHLOROETHENE						8 U	6 U
1,2-DICHLOROETHANE						8 U	6 U
1,2-DICHLOROPROPANE						8 U	6 U
2-BUTANONE						16 U	12 U
2-HEXANONE						16 U	12 U
4-METHYL-2-PENTANONE						16 U	12 U
ACETONE						16 U	12 U
BENZENE						8 U	6 U
BROMODICHLOROMETHANE						8 U	6 U
BROMOFORM						8 U	6 U
BROMOMETHANE						16 U	12 U
CARBON DISULFIDE						8 U	6 U
CARBON TETRACHLORIDE						8 U	6 U
CHLOROBENZENE						8 U	6 U
CHLORODIBROMOMETHANE						8 U	6 U
CHLOROETHANE						16 U	12 U
CHLOROFORM						8 U	6 U
CHLOROMETHANE						16 U	12 U
CIS-1,3-DICHLOROPROPENE						8 U	6 U
ETHYLBENZENE						8 U	6 U
METHYLENE CHLORIDE						8 U	6 U
STYRENE						8 U	6 U
TETRACHLOROETHENE						8 U	6 U
TOLUENE						8 U	6 U
TOTAL 1,2-DICHLOROETHENE						8 U	6 U
TOTAL XYLENES						8 U	6 U
TRANS-1,3-DICHLOROPROPENE						8 U	6 U
TRICHLOROETHENE						8 U	6 U
VINYL CHLORIDE						16 U	12 U
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE						550 U	410 U
1,2-DICHLOROBENZENE						550 U	410 U
1,3,5-TRINITROBENZENE	2500 U	2500 U				250 U	250 U

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS044 (Con)	CF15SS044 (Con)	CF15SS045	CF15SS045	CF15SS045 (Con)	CF15SS046 (Con)	CF15SS047 (Con)
SAMPLE NUMBER	CF15SS044 [08/01/95]	CF15SB44 [07/10/95]	CF15SS045 [08/01/95]	CF15SS045RE [08/01/95]	CF15SB45 [07/11/95]	CF15SS046 [07/31/95]	CF15SS047 [07/31/95]
DEPTH	0-1	1-3	0-1	0-1	1-3	0-1	0-1
SAMPLE DATE	8/1/1995	7/10/1995	8/1/1995	8/1/1995	7/11/1995	7/31/1995	7/31/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,3-DICHLOROBENZENE						550 U	410 U
1,3-DINITROBENZENE	2500 U	2500 U				250 U	250 U
1,4-DICHLOROBENZENE						550 U	410 U
2,2'-OXYBIS(1-CHLOROPROPANE)						550 U	410 U
2,4,5-TRICHLOROPHENOL						1300 U	1000 U
2,4,6-TRICHLOROPHENOL						550 U	410 U
2,4-DICHLOROPHENOL						550 U	410 U
2,4-DIMETHYLPHENOL						550 U	410 U
2,4-DINITROPHENOL						1300 U	1000 U
2,4-DINITROTOLUENE	2000 U	2000 U				550 U	410 U
2,6-DINITROTOLUENE	2000 U	2000 U				550 U	410 U
2-CHLORONAPHTHALENE						550 U	410 U
2-CHLOROPHENOL						550 U	410 U
2-METHYLNAPHTHALENE			110000 UJ	260000 UJ	400 U	550 U	410 U
2-METHYLPHENOL						550 U	410 U
2-NITROANILINE						1300 U	1000 U
2-NITROPHENOL						550 U	410 U
3,3'-DICHLOROBENZIDINE						550 U	410 U
3-NITROANILINE						1300 U	1000 U
4,6-DINITRO-2-METHYLPHENOL						1300 U	1000 U
4-BROMOPHENYL PHENYL ETHER						550 U	410 U
4-CHLORO-3-METHYLPHENOL						550 U	410 U
4-CHLOROANILINE						550 U	410 U
4-CHLOROPHENYL PHENYL ETHER						550 U	410 U
4-METHYLPHENOL						550 U	410 U
4-NITROANILINE						1300 U	1000 U
4-NITROPHENOL						1300 U	1000 U
ACENAPHTHENE			17000 J	39000 J	400 U	550 U	410 U
ACENAPHTHYLENE			110000 UJ	260000 UJ	400 U	550 U	410 U
ANTHRACENE			50000 J	76000 J	400 U	550 U	30 J
BENZO(A)ANTHRACENE			340000 J	650000 J	30 J	71 J	320 J
BENZO(A)PYRENE			340000 J	740000 J	35 J	63 J	360 J
BENZO(B)FLUORANTHENE			510000 J	1100000 J	45 J	94 J	520
BENZO(G,H,I)PERYLENE			180000 J	400000 J	34 J	550 U	210 J
BENZO(K)FLUORANTHENE			160000 J	330000 J	400 U	41 J	190 J
BIS(2-CHLOROETHOXY)METHANE						550 U	410 U
BIS(2-CHLOROETHYL)ETHER						550 U	410 U
BIS(2-ETHYLHEXYL)PHTHALATE						550 U	410 U

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS044 (Con)	CF15SS044 (Con)	CF15SS045	CF15SS045	CF15SS045 (Con)	CF15SS046 (Con)	CF15SS047 (Con)
SAMPLE NUMBER	CF15SS044 [08/01/95]	CF15SB44 [07/10/95]	CF15SS045 [08/01/95]	CF15SS045RE [08/01/95]	CF15SB45 [07/11/95]	CF15SS046 [07/31/95]	CF15SS047 [07/31/95]
DEPTH	0-1	1-3	0-1	0-1	1-3	0-1	0-1
SAMPLE DATE	8/1/1995	7/10/1995	8/1/1995	8/1/1995	7/11/1995	7/31/1995	7/31/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE						550 U	410 U
CARBAZOLE						550 U	36 J
CHRYSENE			400000 J	760000 J	40 J	79 J	370 J
DI-N-BUTYL PHTHALATE						550 U	660
DI-N-OCTYL PHTHALATE						550 U	410 U
DIBENZO(A,H)ANTHRACENE			54000 J	120000 J	400 U	550 U	64 J
DIBENZOFURAN						550 U	410 U
DIETHYL PHTHALATE						550 U	410 U
DIMETHYL PHTHALATE						550 U	410 U
FLUORANTHENE			660000 J	1100000 J	39 J	98 J	560
FLUORENE			7300 J	15000 J	400 U	550 U	410 U
HEXACHLOROBENZENE						550 U	410 U
HEXACHLOROBUTADIENE						550 U	410 U
HEXACHLOROCYCLOPENTADIENE						550 U	410 U
HEXACHLOROETHANE						550 U	410 U
INDENO(1,2,3-CD)PYRENE			160000 J	360000 J	400 U	550 U	190 J
ISOPHORONE						550 U	410 U
N-NITROSO-DI-N-PROPYLAMINE						550 U	410 U
N-NITROSODIPHENYLAMINE						550 U	410 U
NAPHTHALENE			17000 J	38000 J	400 U	550 U	410 U
NITROBENZENE	3000 U	25 U				550 U	410 U
PENTACHLOROPHENOL						1300 U	1000 U
PHENANTHRENE			250000 J	380000 J	400 U	33 J	160 J
PHENOL						550 U	410 U
PYRENE			500000 J	900000 J	42 J	77 J	420 J
Pesticides/PCBs (ug/kg)							
4,4'-DDD						5.5 U	4.2 U
4,4'-DDE						5.5 U	4.2 U
4,4'-DDT						6.5	4.2 U
ALDRIN						2.8 U	0.36 R
ALPHA-BHC						2.8 U	2.1 U
ALPHA-CHLORDANE						2.8 U	2.1 U
AROCLOR-1016						55 U	42 U
AROCLOR-1221						110 U	83 U
AROCLOR-1232						55 U	42 U
AROCLOR-1242						55 U	42 U
AROCLOR-1248						55 U	42 U
AROCLOR-1254						55 U	42 U

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS044 (Con)	CF15SS044 (Con)	CF15SS045	CF15SS045	CF15SS045 (Con)	CF15SS046 (Con)	CF15SS047 (Con)
SAMPLE NUMBER	CF15SS044 [08/01/95]	CF15SB44 [07/10/95]	CF15SS045 [08/01/95]	CF15SS045RE [08/01/95]	CF15SB45 [07/11/95]	CF15SS046 [07/31/95]	CF15SS047 [07/31/95]
DEPTH	0-1	1-3	0-1	0-1	1-3	0-1	0-1
SAMPLE DATE	8/1/1995	7/10/1995	8/1/1995	8/1/1995	7/11/1995	7/31/1995	7/31/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
AROCLOR-1260						55 U	42 U
BETA-BHC						2.8 U	2.1 U
DELTA-BHC						2.8 U	2.1 U
DIELDRIN						5.5 UJ	4.2 UJ
ENDOSULFAN I						2.8 U	2.1 U
ENDOSULFAN II						5.5 U	4.2 U
ENDOSULFAN SULFATE						5.5 U	4.2 U
ENDRIN						5.5 UJ	4.2 UJ
ENDRIN ALDEHYDE						5.5 U	4.2 U
ENDRIN KETONE						5.5 U	2.7 R
GAMMA-BHC (LINDANE)						2.8 UJ	2.1 UJ
GAMMA-CHLORDANE						2.8 U	2.1 U
HEPTACHLOR						2.8 U	2.1 U
HEPTACHLOR EPOXIDE						2.8 U	2.1 U
METHOXYCHLOR						28 U	21 U
TOXAPHENE						280 U	210 U
Explosives (ug/kg)							
2,4,6-TRINITROTOLUENE	2500 U	2500 U				250 U	250 U
2-AMINO-4,6-DINITROTOLUENE	2500 U	2500 U				250 U	250 U
2-NITROTOLUENE	5000 U	5000 U				500 U	500 U
3-NITROTOLUENE	5000 U	5000 U				500 U	500 U
4-AMINO-2,6-DINITROTOLUENE	2500 U	2500 U				250 U	250 U
4-NITROTOLUENE	5000 U	5000 U				500 U	500 U
HMX	5000 U	5000 U				500 U	500 U
RDX	5000 U	5000 U				500 U	500 U
TETRYL	5000 U	5000 U				500 U	500 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS						30 J	33 J
Inorganics (mg/kg)							
ALUMINUM						3540 J	367 J
ANTIMONY						151	0.64 U
ARSENIC						47.4	1 UJ
BARIUM						4.3	1.3
BERYLLIUM						0.33 U	0.25 U
CADMIUM						0.33 U	0.25 U
CALCIUM						196	160
CHROMIUM						3 U	0.86 U
COBALT						0.33 UJ	0.25 UJ

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CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS044 (Con)	CF15SS044 (Con)	CF15SS045	CF15SS045	CF15SS045 (Con)	CF15SS046 (Con)	CF15SS047 (Con)
SAMPLE NUMBER	CF15SS044 [08/01/95]	CF15SB44 [07/10/95]	CF15SS045 [08/01/95]	CF15SS045RE [08/01/95]	CF15SB45 [07/11/95]	CF15SS046 [07/31/95]	CF15SS047 [07/31/95]
DEPTH	0-1	1-3	0-1	0-1	1-3	0-1	0-1
SAMPLE DATE	8/1/1995	7/10/1995	8/1/1995	8/1/1995	7/11/1995	7/31/1995	7/31/1995
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
COPPER						4 U	0.75 U
IRON						436	129
LEAD			20			4430	13.9
MAGNESIUM						47 UJ	21.2 UJ
MANGANESE						1.7	0.45
MERCURY						0.17 U	0.12 U
NICKEL						1.8	0.75 U
POTASSIUM						32.3	23 U
SELENIUM						1.3 UJ	1 UJ
SILVER						0.33 U	0.25 U
SODIUM						322 J	137 J
THALLIUM						1.7 UJ	1.2 UJ
VANADIUM						2.8	0.83
ZINC						5.6 U	2.9 U
Miscellaneous Parameters (mg/kg)							
CYANIDE						0.25 U	0.18 U
TOTAL ORGANIC CARBON						46000	7500

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CF15SS048 [08/01/95]	CF15SS048 [08/03/95]
DEPTH	0-1	0-1
SAMPLE DATE	8/1/1995	8/3/1995
SAMPLE CODE	NORMAL	NORMAL
Volatile Organics (ug/kg)		
1,1,1-TRICHLOROETHANE	6 U	
1,1,2,2-TETRACHLOROETHANE	6 U	
1,1,2-TRICHLOROETHANE	6 U	
1,1-DICHLOROETHANE	6 U	
1,1-DICHLOROETHENE	6 U	
1,2-DICHLOROETHANE	6 U	
1,2-DICHLOROPROPANE	6 U	
2-BUTANONE	11 U	
2-HEXANONE	11 U	
4-METHYL-2-PENTANONE	11 U	
ACETONE	11 U	
BENZENE	6 U	
BROMODICHLOROMETHANE	6 U	
BROMOFORM	6 U	
BROMOMETHANE	11 U	
CARBON DISULFIDE	6 U	
CARBON TETRACHLORIDE	6 U	
CHLOROBENZENE	6 U	
CHLORODIBROMOMETHANE	6 U	
CHLOROETHANE	11 U	
CHLOROFORM	6 U	
CHLOROMETHANE	11 U	
CIS-1,3-DICHLOROPROPENE	6 U	
ETHYLBENZENE	6 U	
METHYLENE CHLORIDE	6 U	
STYRENE	6 U	
TETRACHLOROETHENE	6 U	
TOLUENE	6 U	
TOTAL 1,2-DICHLOROETHENE	6 U	
TOTAL XYLENES	6 U	
TRANS-1,3-DICHLOROPROPENE	6 U	
TRICHLOROETHENE	6 U	
VINYL CHLORIDE	11 U	
Semivolatile Organics (ug/kg)		
1,2,4-TRICHLOROBENZENE	380 U	
1,2-DICHLOROBENZENE	380 U	
1,3,5-TRINITROBENZENE		250 U

APPENDIX C-1.2

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CF15SS048 [08/01/95]	CF15SS048 [08/03/95]
DEPTH	0-1	0-1
SAMPLE DATE	8/1/1995	8/3/1995
SAMPLE CODE	NORMAL	NORMAL
1,3-DICHLOROBENZENE	380 U	
1,3-DINITROBENZENE		250 U
1,4-DICHLOROBENZENE	380 U	
2,2'-OXYBIS(1-CHLOROPROPANE)	380 U	
2,4,5-TRICHLOROPHENOL	910 U	
2,4,6-TRICHLOROPHENOL	380 U	
2,4-DICHLOROPHENOL	380 U	
2,4-DIMETHYLPHENOL	380 U	
2,4-DINITROPHENOL	910 U	
2,4-DINITROTOLUENE	380 U	200 U
2,6-DINITROTOLUENE	380 U	200 U
2-CHLORONAPHTHALENE	380 U	
2-CHLOROPHENOL	380 U	
2-METHYLNAPHTHALENE	380 U	
2-METHYLPHENOL	380 U	
2-NITROANILINE	910 U	
2-NITROPHENOL	380 U	
3,3'-DICHLOROBENZIDINE	380 U	
3-NITROANILINE	910 U	
4,6-DINITRO-2-METHYLPHENOL	910 U	
4-BROMOPHENYL PHENYL ETHER	380 U	
4-CHLORO-3-METHYLPHENOL	380 U	
4-CHLOROANILINE	380 U	
4-CHLOROPHENYL PHENYL ETHER	380 U	
4-METHYLPHENOL	380 U	
4-NITROANILINE	910 U	
4-NITROPHENOL	910 U	
ACENAPHTHENE	380 U	
ACENAPHTHYLENE	380 U	
ANTHRACENE	380 U	
BENZO(A)ANTHRACENE	380 U	
BENZO(A)PYRENE	59 J	
BENZO(B)FLUORANTHENE	72 J	
BENZO(G,H,I)PERYLENE	28 J	
BENZO(K)FLUORANTHENE	380 U	
BIS(2-CHLOROETHOXY)METHANE	380 U	
BIS(2-CHLOROETHYL)ETHER	380 U	
BIS(2-ETHYLHEXYL)PHTHALATE	21 J	

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CF15SS048 [08/01/95]	CF15SS048 [08/03/95]
DEPTH	0-1	0-1
SAMPLE DATE	8/1/1995	8/3/1995
SAMPLE CODE	NORMAL	NORMAL
BUTYL BENZYL PHTHALATE	380 U	
CARBAZOLE	380 U	
CHRYSENE	58 J	
DI-N-BUTYL PHTHALATE	120 J	
DI-N-OCTYL PHTHALATE	380 U	
DIBENZO(A,H)ANTHRACENE	380 U	
DIBENZOFURAN	380 U	
DIETHYL PHTHALATE	380 U	
DIMETHYL PHTHALATE	380 U	
FLUORANTHENE	100 J	
FLUORENE	380 U	
HEXACHLOROBENZENE	380 U	
HEXACHLOROBUTADIENE	380 U	
HEXACHLOROCYCLOPENTADIENE	380 U	
HEXACHLOROETHANE	380 U	
INDENO(1,2,3-CD)PYRENE	25 J	
ISOPHORONE	380 U	
N-NITROSO-DI-N-PROPYLAMINE	380 U	
N-NITROSODIPHENYLAMINE	380 U	
NAPHTHALENE	380 U	
NITROBENZENE	380 U	300 U
PENTACHLOROPHENOL	910 U	
PHENANTHRENE	45 J	
PHENOL	380 U	
PYRENE	84 J	
Pesticides/PCBs (ug/kg)		
4,4'-DDD	3.8 U	
4,4'-DDE	3.8 U	
4,4'-DDT	3.8 U	
ALDRIN	1.9 U	
ALPHA-BHC	1.9 U	
ALPHA-CHLORDANE	1.9 U	
AROCLOR-1016	38 U	
AROCLOR-1221	76 U	
AROCLOR-1232	38 U	
AROCLOR-1242	38 U	
AROCLOR-1248	38 U	
AROCLOR-1254	38 U	

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CF15SS048 [08/01/95]	CF15SS048 [08/03/95]
DEPTH	0-1	0-1
SAMPLE DATE	8/1/1995	8/3/1995
SAMPLE CODE	NORMAL	NORMAL
AROCLOR-1260	38 U	
BETA-BHC	1.9 U	
DELTA-BHC	1.9 U	
DIELDRIN	3.8 UJ	
ENDOSULFAN I	1.9 U	
ENDOSULFAN II	3.8 U	
ENDOSULFAN SULFATE	3.8 U	
ENDRIN	3.8 UJ	
ENDRIN ALDEHYDE	3.8 U	
ENDRIN KETONE	3.8 U	
GAMMA-BHC (LINDANE)	1.9 UJ	
GAMMA-CHLORDANE	1.9 U	
HEPTACHLOR	1.9 U	
HEPTACHLOR EPOXIDE	1.9 U	
METHOXYCHLOR	19 U	
TOXAPHENE	190 U	
Explosives (ug/kg)		
2,4,6-TRINITROTOLUENE		250 U
2-AMINO-4,6-DINITROTOLUENE		250 U
2-NITROTOLUENE		500 U
3-NITROTOLUENE		500 U
4-AMINO-2,6-DINITROTOLUENE		250 U
4-NITROTOLUENE		500 U
HMX		500 U
RDX		500 U
TETRYL		500 U
Petroleum Hydrocarbons (mg/kg)		
TOTAL PETROLEUM HYDROCARBONS		11 U
Inorganics (mg/kg)		
ALUMINUM	333 J	
ANTIMONY	0.45 U	
ARSENIC	0.91 UJ	
BARIUM	1.1	
BERYLLIUM	0.23 U	
CADMIUM	0.23 U	
CALCIUM	111	
CHROMIUM	0.85 U	
COBALT	0.23 UJ	

CONFIRMATORY SOIL ANALYTIC RESULTS (JULY - AUGUST 1995)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CF15SS048 [08/01/95]	CF15SS048 [08/03/95]
DEPTH	0-1	0-1
SAMPLE DATE	8/1/1995	8/3/1995
SAMPLE CODE	NORMAL	NORMAL
COPPER	1.3 U	
IRON	89.4	
LEAD	0.97 J	
MAGNESIUM	11.9 UJ	
MANGANESE	0.86	
MERCURY	0.11 U	
NICKEL	0.68 U	
POTASSIUM	20.9 U	
SELENIUM	0.91 UJ	
SILVER	0.23 U	
SODIUM	502 J	
THALLIUM	1.1 UJ	
VANADIUM	0.66	
ZINC	3.1 U	
Miscellaneous Parameters (mg/kg)		
CYANIDE	0.16 U	
TOTAL ORGANIC CARBON		2700

E-1.3: SOIL ANALYTICAL RESULTS
(MAY 1997 - DECEMBER 1997)

APPENDIX C-1.3

SOIL ANALYTIC RESULTS (MAY AND DECEMBER 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS015	CF15SS015	CF15SS026 (Con)	CF15SS026 (Con)	CF15SS026 (Con)	CF15SS034
SAMPLE NUMBER	CF15SS015A [12/23/97]	CF15SS015B [12/23/97]	CF15SS026A [12/23/97]	CF15SS026B [12/23/97]	CF15SS026C [12/23/97]	CF15SS34A [12/23/97]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	12/23/1997	12/23/1997	12/23/1997	12/23/1997	12/23/1997	12/23/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
1,2,4-TRICHLOROBENZENE						
1,4-DICHLOROBENZENE						
1-METHYLNAPHTHALENE						380 U
2,4-DINITROTOLUENE						
2-CHLOROPHENOL						
2-METHYLNAPHTHALENE						380 U
4-CHLORO-3-METHYLPHENOL						
4-NITROPHENOL						
ACENAPHTHENE						380 U
ACENAPHTHYLENE						380 U
ANTHRACENE						380 U
BENZO(A)ANTHRACENE						380 U
BENZO(A)PYRENE						380 U
BENZO(B)FLUORANTHENE						380 U
BENZO(G,H,I)PERYLENE						380 U
BENZO(K)FLUORANTHENE						380 U
CHRYSENE						380 U
DIBENZO(A,H)ANTHRACENE						380 U
FLUORANTHENE						380 U
FLUORENE						380 U
INDENO(1,2,3-CD)PYRENE						380 U
N-NITROSO-DI-N-PROPYLAMINE						
NAPHTHALENE						380 U
PENTACHLOROPHENOL						
PHENANTHRENE						380 U
PHENOL						
PYRENE						380 U
Inorganics (mg/kg)						
ANTIMONY	46.9	19.7	16.7	48.4	1.2 J	
ARSENIC	17.2	14.8	13.3	9.1	0.95 U	
LEAD						

APPENDIX C-1.3

SOIL ANALYTIC RESULTS (MAY AND DECEMBER 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS034	CF15SS046	CF15SS046	CF15SS049 (Con)	CF15SS049 (Con)	CF15SS050 (Con)	CF15SS050 (Con)
SAMPLE NUMBER	CF15SS34B [12/23/97]	CF15SS046A [12/23/97]	CF15SS046B [12/23/97]	CF15SS049 [05/06/97]	CF15SB49 [05/06/97]	CF15SS050 [05/06/97]	CF15SB50 [05/06/97]
DEPTH	0-1	0-1	0-1	0-1	1-3	0-1	1-3
SAMPLE DATE	12/23/1997	12/23/1997	12/23/1997	5/6/1997	5/6/1997	5/6/1997	5/6/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE					390 U		
1,4-DICHLOROBENZENE					390 U		
1-METHYLNAPHTHALENE	400 U						
2,4-DINITROTOLUENE					390 U		
2-CHLOROPHENOL					390 U		
2-METHYLNAPHTHALENE	400 U			410 U	390 U	580 U	390 U
4-CHLORO-3-METHYLPHENOL					390 U		
4-NITROPHENOL					940 U		
ACENAPHTHENE	400 U			410 U	390 U	580 U	390 U
ACENAPHTHYLENE	400 U			410 U	390 U	580 U	390 U
ANTHRACENE	400 U			410 U	390 U	580 U	390 U
BENZO(A)ANTHRACENE	400 U			410 U	360 J	330 J	170 J
BENZO(A)PYRENE	400 U			410 U	340 J	390 J	200 J
BENZO(B)FLUORANTHENE	400 U			410 U	490	450 J	300 J
BENZO(G,H,I)PERYLENE	400 U			410 U	130 J	110 J	100 J
BENZO(K)FLUORANTHENE	400 U			410 U	210 J	260 J	120 J
CHRYSENE	400 U			410 U	410	360 J	210 J
DIBENZO(A,H)ANTHRACENE	400 U			410 U	65 J	580 U	44 J
FLUORANTHENE	400 U			410 U	580	520 J	260 J
FLUORENE	400 U			410 U	390 U	580 U	390 U
INDENO(1,2,3-CD)PYRENE	400 U			410 U	200 J	190 J	130 J
N-NITROSO-DI-N-PROPYLAMINE					390 U		
NAPHTHALENE	400 U			410 U	390 U	580 U	390 U
PENTACHLOROPHENOL					940 U		
PHENANTHRENE	400 U			410 U	230 J	220 J	92 J
PHENOL					390 U		
PYRENE	400 U			410 U	600	440 J	290 J
Inorganics (mg/kg)							
ANTIMONY		1.2 J	221				
ARSENIC		1.1 J	34.5				
LEAD							

APPENDIX C-1.3

SOIL ANALYTIC RESULTS (MAY AND DECEMBER 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS051 (Con)	CF15SS051 (Con)	CF15SS052 (Con)	CF15SS052 (Con)	CF15SS053 (Con)	CF15SS053 (Con)	CF15SS054 (Con)
SAMPLE NUMBER	CF15SS051 [05/06/97]	CF15SB51 [05/06/97]	CF15SS052 [05/06/97]	CF15SB52 [05/06/97]	CF15SS053 [05/06/97]	CF15SB53 [05/06/97]	CF15SS054 [05/06/97]
DEPTH	0-1	1-3	0-1	1-3	0-1	1-3	0-1
SAMPLE DATE	5/6/1997	5/6/1997	5/6/1997	5/6/1997	5/6/1997	5/6/1997	5/6/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE							
1,4-DICHLOROBENZENE							
1-METHYLNAPHTHALENE							
2,4-DINITROTOLUENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE		410 U		51 J		400 U	
4-CHLORO-3-METHYLPHENOL							
4-NITROPHENOL							
ACENAPHTHENE		410 U		410 U		400 U	
ACENAPHTHYLENE		410 U		410 U		400 U	
ANTHRACENE		410 U		410 U		400 U	
BENZO(A)ANTHRACENE		42 J		59 J		110 J	
BENZO(A)PYRENE		49 J		57 J		130 J	
BENZO(B)FLUORANTHENE		77 J		84 J		190 J	
BENZO(G,H,I)PERYLENE		410 U		410 U		52 J	
BENZO(K)FLUORANTHENE		410 U		410 U		78 J	
CHRYSENE		59 J		69 J		140 J	
DIBENZO(A,H)ANTHRACENE		410 U		410 U		400 U	
FLUORANTHENE		62 J		81 J		130 J	
FLUORENE		410 U		410 U		400 U	
INDENO(1,2,3-CD)PYRENE		410 U		410 U		69 J	
N-NITROSO-DI-N-PROPYLAMINE							
NAPHTHALENE		64 J		200 J		400 U	
PENTACHLOROPHENOL							
PHENANTHRENE		410 U		64 J		400 U	
PHENOL							
PYRENE		75 J		91 J		160 J	
Inorganics (mg/kg)							
ANTIMONY	14.2 J		1.9 J		15.9		16.1 J
ARSENIC	16.5		2.6 J		21.9		5.2
LEAD							

APPENDIX C-1.3

SOIL ANALYTIC RESULTS (MAY AND DECEMBER 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS054 (Con)	CF15SS055 (Con)	CF15SS055 (Con)	CF15SS056 (Con)	CF15SS056 (Con)	CF15SS057 (Con)	CF15SS058 (Con)
SAMPLE NUMBER	CF15SB54 [05/06/97]	CF15SS055 [05/06/97]	CF15SB55 [05/06/97]	CF15SS056 [05/06/97]	CF15SB56 [05/06/97]	CF15SS057 [05/06/97]	CF15SS058 [05/06/97]
DEPTH	1-3	0-1	1-3	0-1	1-3	0-1	0-1
SAMPLE DATE	5/6/1997	5/6/1997	5/6/1997	5/6/1997	5/6/1997	5/6/1997	5/6/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE							
1,4-DICHLOROBENZENE							
1-METHYLNAPHTHALENE							
2,4-DINITROTOLUENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE	390 U		400 U		400 U		
4-CHLORO-3-METHYLPHENOL							
4-NITROPHENOL							
ACENAPHTHENE	390 U		400 U		400 U		
ACENAPHTHYLENE	390 U		400 U		400 U		
ANTHRACENE	390 U		400 U		400 U		
BENZO(A)ANTHRACENE	230 J		400 U		380 J		
BENZO(A)PYRENE	240 J		400 U		420		
BENZO(B)FLUORANTHENE	340 J		400 U		620		
BENZO(G,H,I)PERYLENE	78 J		400 U		160 J		
BENZO(K)FLUORANTHENE	160 J		400 U		220 J		
CHRYSENE	270 J		400 U		450		
DIBENZO(A,H)ANTHRACENE	390 U		400 U		74 J		
FLUORANTHENE	300 J		400 U		500		
FLUORENE	390 U		400 U		400 U		
INDENO(1,2,3-CD)PYRENE	140 J		400 U		250 J		
N-NITROSO-DI-N-PROPYLAMINE							
NAPHTHALENE	390 U		400 U		400 U		
PENTACHLOROPHENOL							
PHENANTHRENE	97 J		400 U		150 J		
PHENOL							
PYRENE	330 J		400 U		540		
Inorganics (mg/kg)							
ANTIMONY		2440		110		375	27.9
ARSENIC		451		30.2		58.2	17.1
LEAD							

APPENDIX C-1.3

SOIL ANALYTIC RESULTS (MAY AND DECEMBER 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS059 (Con)	CF15SS060 (Con)	CF15SS061 (Con)	CF15SS062 (Con)	CF15SS063 (Con)	CF15SS064 (Con)	CF15SS065 (Con)
SAMPLE NUMBER	CF15SS059 [05/06/97]	CF15SS060 [05/06/97]	CF15SS061 [05/06/97]	CF15SS062 [05/06/97]	CF15SS063 [05/06/97]	CF15SS064 [05/06/97]	CF15SS065 [05/07/97]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	5/6/1997	5/6/1997	5/6/1997	5/6/1997	5/6/1997	5/6/1997	5/7/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE							
1,4-DICHLOROBENZENE							
1-METHYLNAPHTHALENE							
2,4-DINITROTOLUENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE							
4-CHLORO-3-METHYLPHENOL							
4-NITROPHENOL							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
N-NITROSO-DI-N-PROPYLAMINE							
NAPHTHALENE							
PENTACHLOROPHENOL							
PHENANTHRENE							
PHENOL							
PYRENE							
Inorganics (mg/kg)							
ANTIMONY	69						
ARSENIC	30.2						
LEAD		550	807	1980	1110	21.5	274 J

APPENDIX C-1.3

SOIL ANALYTIC RESULTS (MAY AND DECEMBER 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS066 (Con)	CF15SS067 (Con)	CF15SS068 (Con)	CF15SS069 (Con)	CF15SS070 (Con)	CF15SS071 (Con)	CF15SS072 (Con)
SAMPLE NUMBER	CF15SS066 [05/07/97]	CF15SS067 [05/07/97]	CF15SS068 [05/07/97]	CF15SS069 [05/06/97]	CF15SS070 [05/06/97]	CF15SS071 [05/06/97]	CF15SS072 [05/07/97]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	5/7/1997	5/7/1997	5/7/1997	5/6/1997	5/6/1997	5/6/1997	5/7/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)							
1,2,4-TRICHLOROBENZENE							
1,4-DICHLOROBENZENE							
1-METHYLNAPHTHALENE							
2,4-DINITROTOLUENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE							
4-CHLORO-3-METHYLPHENOL							
4-NITROPHENOL							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
N-NITROSO-DI-N-PROPYLAMINE							
NAPHTHALENE							
PENTACHLOROPHENOL							
PHENANTHRENE							
PHENOL							
PYRENE							
Inorganics (mg/kg)							
ANTIMONY							
ARSENIC							
LEAD	2830 J	139 J	144 J	4	37	840	60.2 J

APPENDIX C-1.3

SOIL ANALYTIC RESULTS (MAY AND DECEMBER 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS073 (Con)
SAMPLE NUMBER	CF15SS073 [05/07/97]
DEPTH	0-1
SAMPLE DATE	5/7/1997
SAMPLE CODE	NORMAL
Semivolatile Organics (ug/kg)	
1,2,4-TRICHLOROBENZENE	
1,4-DICHLOROBENZENE	
1-METHYLNAPHTHALENE	
2,4-DINITROTOLUENE	
2-CHLOROPHENOL	
2-METHYLNAPHTHALENE	
4-CHLORO-3-METHYLPHENOL	
4-NITROPHENOL	
ACENAPHTHENE	
ACENAPHTHYLENE	
ANTHRACENE	
BENZO(A)ANTHRACENE	
BENZO(A)PYRENE	
BENZO(B)FLUORANTHENE	
BENZO(G,H,I)PERYLENE	
BENZO(K)FLUORANTHENE	
CHRYSENE	
DIBENZO(A,H)ANTHRACENE	
FLUORANTHENE	
FLUORENE	
INDENO(1,2,3-CD)PYRENE	
N-NITROSO-DI-N-PROPYLAMINE	
NAPHTHALENE	
PENTACHLOROPHENOL	
PHENANTHRENE	
PHENOL	
PYRENE	
Inorganics (mg/kg)	
ANTIMONY	
ARSENIC	
LEAD	427 J

E-1.4: SUPPLEMENTAL SOIL ANALYTICAL RESULTS
(APRIL 1997 - JUNE 1999)

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-500	CEF-015-SS-501	CEF-015-SS-502	CEF-015-SS-503	CEF-015-SS-504	CEF-015-SS-505	CEF-015-SS-506	CEF-015-SS-507	CEF-015-SS-508
SAMPLE NUMBER	CEF-15-SS-500	CEF-15-SS-501	CEF-15-SS-502	CEF-15-SS-503	CEF-15-SS-504	CEF-15-SS-505	CEF-15-SS-506	CEF-15-SS-507	CEF-15-SS-508
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE									
2-METHYLNAPHTHALENE									
ACENAPHTHENE									
ACENAPHTHYLENE									
ANTHRACENE									
BENZO(A)ANTHRACENE									
BENZO(A)PYRENE									
BENZO(B)FLUORANTHENE									
BENZO(G,H,I)PERYLENE									
BENZO(K)FLUORANTHENE									
CHRYSENE									
DIBENZO(A,H)ANTHRACENE									
FLUORANTHENE									
FLUORENE									
INDENO(1,2,3-CD)PYRENE									
NAPHTHALENE									
PHENANTHRENE									
PYRENE									
Inorganics (mg/kg)									
LEAD	132	106	62	257	164	708	1870	673	1130

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-508	CEF-015-SS-509	CEF-015-SS-510	CEF-015-SS-511	CEF-015-SS-512	CEF-015-SS-513	CEF-015-SS-514	CEF-015-SS-515	CEF-015-SS-516
SAMPLE NUMBER	CEF-15-SS-508-D	CEF-15-SS-509	CEF-15-SS-510	CEF-15-SS-511	CEF-15-SS-512	CEF-15-SS-513	CEF-15-SS-514	CEF-15-SS-515	CEF-15-SS-516
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE									
2-METHYLNAPHTHALENE									
ACENAPHTHENE									
ACENAPHTHYLENE									
ANTHRACENE									
BENZO(A)ANTHRACENE									
BENZO(A)PYRENE									
BENZO(B)FLUORANTHENE									
BENZO(G,H,I)PERYLENE									
BENZO(K)FLUORANTHENE									
CHRYSENE									
DIBENZO(A,H)ANTHRACENE									
FLUORANTHENE									
FLUORENE									
INDENO(1,2,3-CD)PYRENE									
NAPHTHALENE									
PHENANTHRENE									
PYRENE									
Inorganics (mg/kg)									
LEAD	719	3740	632	4680	1640	1210	2490	2290	1990

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-517	CEF-015-SS-518	CEF-015-SS-519	CEF-015-SS-520	CEF-015-SS-520	CEF-015-SS-521	CEF-015-SS-522	CEF-015-SS-523	CEF-015-SS-524
SAMPLE NUMBER	CEF-15-SS-517	CEF-15-SS-518	CEF-15-SS-519	CEF-15-SS-520	CEF-15-SS-520-D	CEF-15-SS-521	CEF-15-SS-522	CEF-15-SS-523	CEF-15-SS-524
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE									
2-METHYLNAPHTHALENE									
ACENAPHTHENE									
ACENAPHTHYLENE									
ANTHRACENE									
BENZO(A)ANTHRACENE									
BENZO(A)PYRENE									
BENZO(B)FLUORANTHENE									
BENZO(G,H,I)PERYLENE									
BENZO(K)FLUORANTHENE									
CHRYSENE									
DIBENZO(A,H)ANTHRACENE									
FLUORANTHENE									
FLUORENE									
INDENO(1,2,3-CD)PYRENE									
NAPHTHALENE									
PHENANTHRENE									
PYRENE									
Inorganics (mg/kg)									
LEAD	4520	4600	13000	148	114	2420	1110	746	2980

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-525	CEF-015-SS-526	CEF-015-SS-526	CEF-015-SS-527	CEF-015-SS-528	CEF-015-SS-529	CEF-015-SS-530	CEF-015-SS-531	CEF-015-SS-531
SAMPLE NUMBER	CEF-15-SS-525	CEF-15-SS-526	CEF-15-SS-526-D	CEF-15-SS-527	CEF-15-SS-528	CEF-15-SS-529	CEF-15-SS-530	CEF-15-SS-531	CEF-15-SS-531-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/12/1999
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE									
2-METHYLNAPHTHALENE									
ACENAPHTHENE									
ACENAPHTHYLENE									
ANTHRACENE									
BENZO(A)ANTHRACENE									
BENZO(A)PYRENE									
BENZO(B)FLUORANTHENE									
BENZO(G,H,I)PERYLENE									
BENZO(K)FLUORANTHENE									
CHRYSENE									
DIBENZO(A,H)ANTHRACENE									
FLUORANTHENE									
FLUORENE									
INDENO(1,2,3-CD)PYRENE									
NAPHTHALENE									
PHENANTHRENE									
PYRENE									
Inorganics (mg/kg)									
LEAD	746	698	982	439	115	1230	5660	4790 J	11800 J

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-532	CEF-015-SS-533	CEF-015-SS-534	CEF-015-SS-535	CEF-015-SS-536	CEF-015-SS-537	CEF-015-SS-538	CEF-015-SS-538	CEF-015-SS-539
SAMPLE NUMBER	CEF-15-SS-532	CEF-15-SS-533	CEF-15-SS-534	CEF-15-SS-535	CEF-15-SS-536	CEF-15-SS-537	CEF-15-SS-538	CEF-15-SS-538-D	CEF-15-SS-539
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/12/1999	4/12/1999	4/12/1999	4/12/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE									
2-METHYLNAPHTHALENE									
ACENAPHTHENE									
ACENAPHTHYLENE									
ANTHRACENE									
BENZO(A)ANTHRACENE									
BENZO(A)PYRENE									
BENZO(B)FLUORANTHENE									
BENZO(G,H,I)PERYLENE									
BENZO(K)FLUORANTHENE									
CHRYSENE									
DIBENZO(A,H)ANTHRACENE									
FLUORANTHENE									
FLUORENE									
INDENO(1,2,3-CD)PYRENE									
NAPHTHALENE									
PHENANTHRENE									
PYRENE									
Inorganics (mg/kg)									
LEAD	2290	41400	970	285	88.3	57.3	25 U	15.5 U	378

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-540	CEF-015-SS-541	CEF-015-SS-542	CEF-015-SS-543	CEF-015-SS-544	CEF-015-SS-544	CEF-015-SS-545	CEF-015-SS-546	CEF-015-SS-547
SAMPLE NUMBER	CEF-15-SS-540	CEF-15-SS-541	CEF-15-SS-542	CEF-15-SS-543	CEF-15-SS-544	CEF-15-SS-544-D	CEF-15-SS-545	CEF-15-SS-546	CEF-15-SS-547
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE									
2-METHYLNAPHTHALENE									
ACENAPHTHENE									
ACENAPHTHYLENE									
ANTHRACENE									
BENZO(A)ANTHRACENE									
BENZO(A)PYRENE									
BENZO(B)FLUORANTHENE									
BENZO(G,H,I)PERYLENE									
BENZO(K)FLUORANTHENE									
CHRYSENE									
DIBENZO(A,H)ANTHRACENE									
FLUORANTHENE									
FLUORENE									
INDENO(1,2,3-CD)PYRENE									
NAPHTHALENE									
PHENANTHRENE									
PYRENE									
Inorganics (mg/kg)									
LEAD	7.5 U	19.1 U	65.9	5.8 U	119	36.4 U	199	152	35.7 U

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-548	CEF-015-SS-549	CEF-015-SS-550	CEF-015-SS-551	CEF-015-SS-552	CEF-015-SS-553	CEF-015-SS-554	CEF-015-SS-555	CEF-015-SS-556
SAMPLE NUMBER	CEF-15-SS-548	CEF-15-SS-549	CEF-15-SS-550	CEF-15-SS-551	CEF-15-SS-552	CEF-15-SS-553	CEF-15-SS-554	CEF-15-SS-555	CEF-15-SS-556
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/14/1999	4/14/1999	4/14/1999	4/14/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE								47 U	52 U
2-METHYLNAPHTHALENE								47 U	52 U
ACENAPHTHENE								47 U	52 U
ACENAPHTHYLENE								391	52 U
ANTHRACENE								47 U	52 U
BENZO(A)ANTHRACENE								7 U	7.8 U
BENZO(A)PYRENE								7 U	17.9
BENZO(B)FLUORANTHENE								7 U	7.8 U
BENZO(G,H,I)PERYLENE								7 U	7.8 U
BENZO(K)FLUORANTHENE								7 U	73.8
CHRYSENE								42.3	7.8 U
DIBENZO(A,H)ANTHRACENE								7 U	7.8 U
FLUORANTHENE								147	7.8 U
FLUORENE								47 U	52 U
INDENO(1,2,3-CD)PYRENE								7 U	7.8 U
NAPHTHALENE								47 U	52 U
PHENANTHRENE								47 U	52 U
PYRENE								7 U	7.8 U
Inorganics (mg/kg)									
LEAD	35.2 U	16.4 U	13.1 U	9.3 U	13.3 U	221	125		

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-557	CEF-015-SS-558	CEF-015-SS-558	CEF-015-SS-559	CEF-015-SS-560	CEF-015-SS-560	CEF-015-SS-561	CEF-015-SS-561	CEF-015-SS-562
SAMPLE NUMBER	CEF-15-SS-557	CEF-15-SS-558	CEF-15-SS-558-D	CEF-15-SS-559	CEF-15-SS-560	CEF-15-SS-560-D	CEF-15-SS-561	CEF-15-SS-561-D	CEF-15-SS-562
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/14/1999	4/14/1999	4/14/1999	4/14/1999	4/14/1999	4/14/1999	4/14/1999	4/14/1999	4/14/1999
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	ORIG	DUP	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE	55 U	51 U	52 U	44 U	46 U	46 U	45 U	47 U	36 U
2-METHYLNAPHTHALENE	55 U	51 U	52 U	44 U	46 UJ	2730 J	45 U	47 U	36 U
ACENAPHTHENE	55 U	51 U	52 U	44 U	1390 J	3180 J	217	213	36 U
ACENAPHTHYLENE	55 U	51 U	52 U	53.7	46 U	46 U	45 U	47 U	36 U
ANTHRACENE	55 U	51 U	52 U	44 U	201 J	1060 J	45 U	47 U	36 U
BENZO(A)ANTHRACENE	8.2 U	7.7 U	9.2	6.6 U	1850 J	3900 J	190	195	26.2
BENZO(A)PYRENE	8.2 U	7.7 U	7.8 U	6.6 U	5440	7360	324	354	31.7
BENZO(B)FLUORANTHENE	8.2 U	7.7 U	11.4	6.6 U	4400 J	8140 J	258	323	31.6
BENZO(G,H,I)PERYLENE	8.2 U	7.7 U	7.8 U	6.6 U	3880	4590	178	235	5.4 U
BENZO(K)FLUORANTHENE	28.2	7.7 U	7.8 U	6.6 U	2450	2460	99	160	17.5
CHRYSENE	8.2 U	7.7 U	19	6.6 U	2470 J	4300 J	339 J	7.1 UJ	52.9
DIBENZO(A,H)ANTHRACENE	8.2 U	7.7 U	7.8 U	6.6 U	6.9 U	7 U	6.8 U	7.1 U	5.4 U
FLUORANTHENE	8.2 U	7.7 U	7.8 U	6.6 U	1980	5750	498	549	128
FLUORENE	55 U	51 U	52 U	44 U	820 J	1700 J	45 UJ	94 J	36 U
INDENO(1,2,3-CD)PYRENE	8.2 U	7.7 U	7.8 U	6.6 U	6.9 U	7 U	171	214	5.4 U
NAPHTHALENE	55 U	51 U	52 U	44 U	46 U	46 U	45 U	47 U	36 U
PHENANTHRENE	55 U	51 U	52 U	44 U	46 UJ	2760 J	45 UJ	62.5 J	36 U
PYRENE	8.2 U	7.7 U	7.8 U	6.6 U	1420 J	3790 J	307	339	53
Inorganics (mg/kg)									
LEAD									

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-563	CEF-015-SS-564	CEF-015-SS-565	CEF-015-SS-566	CEF-015-SS-567	CEF-015-SS-568	CEF-015-SS-569	CEF-015-SS-570	CEF-015-SS-571
SAMPLE NUMBER	CEF-15-SS-563	CEF-15-SS-564	CEF-15-SS-565	CEF-15-SS-566	CEF-15-SS-567	CEF-15-SS-568	CEF-15-SS-569	CEF-15-SS-570	CEF-15-SS-571
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/14/1999	4/14/1999	4/14/1999	4/14/1999	4/14/1999	4/14/1999	4/14/1999	4/12/1999	4/12/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE	34 U	36 U	35 U	34 U	38 U	39 U	35 U	43 U	41 U
2-METHYLNAPHTHALENE	34 U	36 U	275	34 U	38 U	39 U	295	43 U	41 U
ACENAPHTHENE	34 U	36 U	336	34 U	70.7	39 U	360	43 U	41 U
ACENAPHTHYLENE	34 U	36 U	35 U	65.2	38 U	39 U	35 U	152	137
ANTHRACENE	34 U	36 U	42.9	34 U	38 U	39 U	62.4	43 U	41 U
BENZO(A)ANTHRACENE	5.8	33.4	415	5.2 U	148	27.6	456	47.6	6.1 U
BENZO(A)PYRENE	5.1 U	26.5	523	28.7	173	43.6	631	49.7	6.1 U
BENZO(B)FLUORANTHENE	5.1 U	63.6	470	26.3	169	41.1	580	73.5	6.1 U
BENZO(G,H,I)PERYLENE	5.1 U	5.4 U	302	5.2 U	132	36	349	29.4	6.1 U
BENZO(K)FLUORANTHENE	5.1 U	21.4	156	12.5	49.5	19.4	179	6.5 U	6.1 U
CHRYSENE	14	69	530	5.2 U	217	5.8 U	626	235	6.1 U
DIBENZO(A,H)ANTHRACENE	5.1 U	5.4 U	5.2 U	5.2 U	5.7 U	5.8 U	108	6.5 U	6.1 U
FLUORANTHENE	38.5	143	962	111	511	109	1160	160	6.1 U
FLUORENE	34 U	36 U	35 U	34 U	80.3	39 U	140	43 U	41 U
INDENO(1,2,3-CD)PYRENE	5.1 U	5.4 U	557	5.2 U	189	33.1	457	6.5 U	6.1 U
NAPHTHALENE	34 U	36 U	35 U	34 U	38 U	39 U	35 U	43 U	41 U
PHENANTHRENE	34 U	38.6	382	34 U	659	37.7	372	43 U	41 U
PYRENE	11.8	85	679	34.6	260	76.2	789	109	6.1 U
Inorganics (mg/kg)									
LEAD									

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-572	CEF-015-SS-573	CEF-015-SS-574	CEF-015-SS-575	CEF-015-SS-576	CEF-015-SS-577	CEF-015-SS-578	CEF-015-SS-579	CEF-015-SS-580
SAMPLE NUMBER	CEF-15-SS-572	CEF-15-SS-573	CEF-15-SS-574	CEF-15-SS-575	CEF-15-SS-576	CEF-15-SS-577	CEF-15-SS-578	CEF-15-SS-579	CEF-15-SS-580
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/12/1999	4/12/1999	4/12/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999	4/13/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE	39 U	37 U	41 U	36 U	36 U	40 U	43 U	34 U	37 U
2-METHYLNAPHTHALENE	69	37 U	41 U	36 U	36 U	40 U	43 U	34 U	37 U
ACENAPHTHENE	39 U	37 U	41 U	155	36 U	40 U	43 U	34 U	37 U
ACENAPHTHYLENE	52.9	37 U	543	80.9	36 U	40 U	277	34 U	37 U
ANTHRACENE	39 U	37 U	41 U	36 U	36 U	40 U	43 U	34 U	37 U
BENZO(A)ANTHRACENE	5.8 U	5.5 U	6.1 U	175	5.3 U	5.9 U	6.4 U	5.2 U	5.5 U
BENZO(A)PYRENE	5.8 U	5.5 U	6.1 U	316	5.3 U	5.9 U	6.4 U	5.2 U	24.3
BENZO(B)FLUORANTHENE	5.8 U	71.5	6.1 U	367	5.3 U	5.9 U	6.4 U	5.2 U	5.5 U
BENZO(G,H,I)PERYLENE	5.8 U	5.5 U	6.1 U	210	8	5.9 U	6.4 U	5.2 U	5.5 U
BENZO(K)FLUORANTHENE	5.8 U	62.9	6.1 U	81	5.3 U	5.9 U	6.4 U	5.2 U	5.5 U
CHRYSENE	5.8 U	319	6.1 U	255	5.3 U	5.9 U	6.4 U	5.2 U	1670
DIBENZO(A,H)ANTHRACENE	5.8 U	5.5 U	6.1 U	93.9	5.3 U	5.9 U	6.4 U	5.2 U	5.5 U
FLUORANTHENE	5.8 U	5.5 U	6.1 U	261	5.3 U	5.9 U	6.4 U	5.2 U	5.5 U
FLUORENE	39 U	37 U	41 U	53.7	36 U	40 U	43 U	34 U	37 U
INDENO(1,2,3-CD)PYRENE	5.8 U	5.5 U	6.1 U	272	5.3 U	5.9 U	6.4 U	5.2 U	5.5 U
NAPHTHALENE	39 U	37 U	41 U	36 U	36 U	40 U	43 U	34 U	37 U
PHENANTHRENE	38.5	1660	41 U	89.9	36 U	40 U	43 U	34 U	37 U
PYRENE	5.8 U	5.5 U	6.1 U	255	20.4	5.9 U	6.4 U	5.2 U	5.5 U
Inorganics (mg/kg)									
LEAD									

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-581	CEF-015-SS-582	CEF-015-SS-583	CEF-015-SS-584	CEF-015-SS-600	CEF-015-SS-601	CEF-015-SS-602	CEF-015-SS-603	CEF-015-SS-604
SAMPLE NUMBER	CEF-15-SS-581	CEF-15-SS-582	CEF-15-SS-583	CEF-15-SS-584	CEF-15-SS-600	CEF-15-SS-601	CEF-15-SS-602	CEF-15-SS-603	CEF-15-SS-604
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	4/13/1999	4/13/1999	4/13/1999	4/12/1999	6/24/1999	6/24/1999	6/24/1999	6/25/1999	6/24/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE	44 U	51 U	37 U	36 U	38 U	95	170	60	
2-METHYLNAPHTHALENE	44 U	106	37 U	188	83	150	90	56	
ACENAPHTHENE	44 U	51 U	37 U	182	38 U	110	36 U	110	
ACENAPHTHYLENE	212	463	37 U	42.3	78 U	160	110	360	
ANTHRACENE	44 U	51 U	37 U	52.9	5.8 U	5.7 U	5.4 U	6.5 U	
BENZO(A)ANTHRACENE	30.8	7.6 U	5.5 U	190	7.4	5.7 U	9.2	6.5 U	
BENZO(A)PYRENE	40.2	7.6 U	5.5 U	253	9.5	83	5.4 U	6.5 U	
BENZO(B)FLUORANTHENE	32.3	7.6 U	5.5 U	237	13	5.7 U	9.1	6.5 U	
BENZO(G,H,I)PERYLENE	6.6 U	7.6 U	5.5 U	92.3	7.8 U	25	7.3 U	8.7 U	
BENZO(K)FLUORANTHENE	15.7	35.6	5.5 U	87.3	5.8 U	5.7 U	5.4 U	6.5 U	
CHRYSENE	13.8	736	5.5 U	222	5.8 U	5.7 U	5.4 U	6.5 U	
DIBENZO(A,H)ANTHRACENE	6.6 U	7.6 U	5.5 U	5.4 U	9.7 U	9.4 U	9 U	11 U	
FLUORANTHENE	254	7.6 U	5.5 U	701	10	33	8	8.7 U	
FLUORENE	44 U	51 U	37 U	59.4	7.8 U	7.6 U	7.3 U	8.7 U	
INDENO(1,2,3-CD)PYRENE	6.6 U	7.6 U	5.5 U	117	5.8 U	5.7 U	5.4 U	6.5 U	
NAPHTHALENE	44 U	51 U	37 U	36 U	71	200	180	150	
PHENANTHRENE	44 U	51 U	37 U	65.5	7.8 U	5.7 U	5.4 U	7.5 U	
PYRENE	105	137	5.5 U	359	11	51	7.3 U	8.7 U	
Inorganics (mg/kg)									
LEAD								6.8 J	333 J

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-605	CEF-015-SS-606	CEF-015-SS-607	CEF-015-SS-608	CEF-015-SS-608	CEF-015-SS-609	CEF-015-SS-610	CEF-015-SS-611	CEF-015-SS-612
SAMPLE NUMBER	CEF-15-SS-605	CEF-15-SS-606	CEF-15-SS-607	CEF-15-SS-608	CEF-15-SS-608-D	CEF-15-SS-609	CEF-15-SS-610	CEF-15-SS-611	CEF-15-SS-612
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	6/24/1999	6/24/1999	6/24/1999	6/24/1999	7/9/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE						35 U			36 U
2-METHYLNAPHTHALENE						35 U			59
ACENAPHTHENE						35 U			36 U
ACENAPHTHYLENE						71 U			74 U
ANTHRACENE						5.3 U			5.5 U
BENZO(A)ANTHRACENE						5.3 U			6.1
BENZO(A)PYRENE						5.3 U			8
BENZO(B)FLUORANTHENE						5.3 U			10
BENZO(G,H,I)PERYLENE						7.1 U			7.4
BENZO(K)FLUORANTHENE						5.3 U			5.5 U
CHRYSENE						5.3 U			5.5 U
DIBENZO(A,H)ANTHRACENE						8.7 U			9.1 U
FLUORANTHENE						7.1 U			10
FLUORENE						7.1 U			7.4 U
INDENO(1,2,3-CD)PYRENE						5.3 U			5.5 U
NAPHTHALENE						35 U			110
PHENANTHRENE						5.3 U			5.6
PYRENE						7.1 U			9.2
Inorganics (mg/kg)									
LEAD	5.2 J	2.9 U	349 J	25.4 J	112 J	3.8 J	1350 J	37.2 J	18.1 J

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-613	CEF-015-SS-614	CEF-015-SS-615	CEF-015-SS-616	CEF-015-SS-617	CEF-015-SS-618	CEF-015-SS-618	CEF-015-SS-619	CEF-015-SS-620
SAMPLE NUMBER	CEF-15-SS-613	CEF-15-SS-614	CEF-15-SS-615	CEF-15-SS-616	CEF-15-SS-617	CEF-15-SS-618	CEF-15-SS-618-D	CEF-15-SS-619	CEF-15-SS-620
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	6/24/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL	ORIG
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE				150					
2-METHYLNAPHTHALENE				61					
ACENAPHTHENE				67					
ACENAPHTHYLENE				110					
ANTHRACENE				5.3 U					
BENZO(A)ANTHRACENE				11					
BENZO(A)PYRENE				12					
BENZO(B)FLUORANTHENE				12					
BENZO(G,H,I)PERYLENE				7.8					
BENZO(K)FLUORANTHENE				5.3 U					
CHRYSENE				5.3 U					
DIBENZO(A,H)ANTHRACENE				8.8 U					
FLUORANTHENE				22					
FLUORENE				7 U					
INDENO(1,2,3-CD)PYRENE				5.4					
NAPHTHALENE				190					
PHENANTHRENE				6.8					
PYRENE				16					
Inorganics (mg/kg)									
LEAD	1280 J	21.9 J	285 J	52.9 J	9710 J	272	402	109 J	234 J

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-620	CEF-015-SS-621	CEF-015-SS-622	CEF-015-SS-623	CEF-015-SS-624	CEF-015-SS-625	CEF-015-SS-626	CEF-015-SS-627	CEF-015-SS-628
SAMPLE NUMBER	CEF-15-SS-620-D	CEF-15-SS-621	CEF-15-SS-622	CEF-15-SS-623	CEF-15-SS-624	CEF-15-SS-625	CEF-15-SS-626	CEF-15-SS-627	CEF-15-SS-628
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	7/9/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999	6/24/1999	6/25/1999
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE		37 U		35 U	530	150	130	35 U	43 U
2-METHYLNAPHTHALENE		37 U		35 U	37 U	37 U	49	35 U	110
ACENAPHTHENE		37 U		35 U	37 U	37 U	38	35 U	43 U
ACENAPHTHYLENE		74 U		71 U	220	74 U	110	70 U	86 U
ANTHRACENE		5.6 U		5.3 U	5.6 U	5.6 U	5.3 U	5.2 U	6.5 U
BENZO(A)ANTHRACENE		5.6 U		5.3 U	28	5.6 U	16	5.2 U	7.1
BENZO(A)PYRENE		5.6 U		5.3 U	12	6.6	21	5.2 U	9.9
BENZO(B)FLUORANTHENE		5.6 U		5.3 U	7.9	12	29	5.2 U	12
BENZO(G,H,I)PERYLENE		7.4 U		7.1 U	19	7.4 U	9.4	7 U	8.6 U
BENZO(K)FLUORANTHENE		5.6 U		5.3 U	5.6 U	5.6 U	9.9	5.2 U	6.5 U
CHRYSENE		5.6 U		5.3 U	5.6 U	5.6 U	5.3 U	5.2 U	6.5 U
DIBENZO(A,H)ANTHRACENE		9.2 U		8.8 U	9.2 U	9.2 U	8.8 U	8.7 U	11 U
FLUORANTHENE		7.4 U		7.1 U	33	9.7	31	7 U	11
FLUORENE		7.4 U		7.1 U	7.4 U	7.4 U	7.1 U	7 U	8.6 U
INDENO(1,2,3-CD)PYRENE		5.6 U		5.3 U	8.3	5.6 U	11	5.2 U	6.5 U
NAPHTHALENE		37 U		41	850	190	530	51	43 U
PHENANTHRENE		5.6 U		5.3 U	5.6 U	5.6 U	9.1	5.2 U	6.5 U
PYRENE		7.4 U		7.1 U	7.4 U	7.4 U	26	7 U	12
Inorganics (mg/kg)									
LEAD	103 J	90.3 J	47 J						

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-629	CEF-015-SS-630	CEF-015-SS-631	CEF-015-SS-631	CEF-015-SS-632	CEF-015-SS-633	CEF-015-SS-634	CEF-015-SS-635	CEF-015-SS-636
SAMPLE NUMBER	CEF-15-SS-629	CEF-15-SS-630	CEF-15-SS-631	CEF-15-SS-631-D	CEF-15-SS-632	CEF-15-SS-633	CEF-15-SS-634	CEF-15-SS-635	CEF-15-SS-636
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	6/25/1999	6/25/1999	6/25/1999	6/25/1999	6/25/1999	6/25/1999	6/25/1999	6/25/1999	6/25/1999
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE	40 U	36 U	440 J	1400 J	41 U	140	37 U	38 U	36 U
2-METHYLNAPHTHALENE	43	36 U	40 UJ	1100 J	49	180	76	38 U	36 U
ACENAPHTHENE	40 U	36 U	180 J	41 UJ	41 U	43 U	37 U	38 U	36 U
ACENAPHTHYLENE	80 U	73 U	80 U	150	83 U	130	75 U	78 U	74 U
ANTHRACENE	6 U	5.5 U	7.2 J	28 J	6.2 U	6.5 U	5.6 U	5.8 U	5.5 U
BENZO(A)ANTHRACENE	6 U	5.5 U	6 U	7.3	7.2	13	5.6 U	5.8 U	5.5 U
BENZO(A)PYRENE	8.5	5.5 U	6 UJ	14 J	16	18	5.6 U	5.8 U	5.5 U
BENZO(B)FLUORANTHENE	9.1	5.5 U	21 J	78 J	19	84	5.6 U	5.8 U	5.5 U
BENZO(G,H,I)PERYLENE	8 U	7.3 U	8 U	8.4 U	10	12	7.5 U	7.8 U	7.4 U
BENZO(K)FLUORANTHENE	6 U	5.5 U	6 U	6.2 U	6.9	7.8	5.6 U	5.8 U	5.5 U
CHRYSENE	6 U	5.5 U	6 U	6.2 U	6.2 U	6.5 U	5.6 U	5.8 U	5.5 U
DIBENZO(A,H)ANTHRACENE	9.9 U	9.1 U	10 U	10 U	10 U	11 U	9.3 U	9.7 U	9.2 U
FLUORANTHENE	8 U	7.3 U	14 J	43 J	8.9	25	7.5 U	7.8 U	7.4 U
FLUORENE	8 U	7.3 U	8 U	8.4 U	8.3 U	8.8 U	7.5 U	7.8 U	7.4 U
INDENO(1,2,3-CD)PYRENE	6 U	5.5 U	6 U	6.2 U	6.4	6.5 U	5.6 U	5.8 U	5.5 U
NAPHTHALENE	40 U	150	320 J	1700 J	61	140	110	38 U	68
PHENANTHRENE	6 U	5.5 U	6 U	6.2 U	6.2 U	9.1	5.6 U	7.8 U	5.5 U
PYRENE	8.5	7.3 U	8 U	8.4 U	13	25	7.5 U	5.8 U	7.4 U
Inorganics (mg/kg)									
LEAD	5.8 J								

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-637	CEF-015-SS-638	CEF-015-SS-638	CEF-015-SS-639	CEF-015-SS-640	CEF-015-SS-641	CEF-015-SS-642	CEF-015-SS-642	CEF-015-SS-643
SAMPLE NUMBER	CEF-15-SS-637	CEF-15-SS-638	CEF-15-SS-638-D	CEF-15-SS-639	CEF-15-SS-640	CEF-15-SS-641	CEF-15-SS-642	CEF-15-SS-642-D	CEF-15-SS-643
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	6/25/1999	6/28/1999	6/28/1999	6/28/1999	6/28/1999	6/28/1999	6/28/1999	6/28/1999	6/25/1999
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE	36 U	35 U	37 U	36 U	39 U	39 U	37 U	37 U	57
2-METHYLNAPHTHALENE	36 U	35 U	37 U	36 U	52	39 U	37 U	37 U	47
ACENAPHTHENE	36 U	35 U	37 U	36 U	39 U	39 U	37 U	37 U	57
ACENAPHTHYLENE	73 U	71 U	75 U	73 U	79 U	80 U	75 U	76 U	78 U
ANTHRACENE	5.5 U	5.3 U	5.6 U	5.4 U	5.9 U	6 U	5.6 U	5.7 U	6.8
BENZO(A)ANTHRACENE	5.5 U	5.3 U	5.6 U	5.4 U	5.9 U	6 U	5.6 U	5.7 U	30
BENZO(A)PYRENE	5.5 U	5.3 U	5.6 U	5.4 U	5.9 U	8.9	5.6 U	5.7 U	49
BENZO(B)FLUORANTHENE	5.5 U	5.3 U	5.6 U	5.4 U	5.9 U	19	5.6 U	5.7 U	57
BENZO(G,H,I)PERYLENE	7.3 U	7.1 U	7.5 U	7.3 U	7.9 U	8 U	7.5 U	7.6 U	34
BENZO(K)FLUORANTHENE	5.5 U	5.3 U	5.6 U	5.4 U	5.9 U	6 U	5.6 U	5.7 U	26
CHRYSENE	5.5 U	5.3 U	5.6 U	5.4 U	5.9 U	6 U	5.6 U	5.7 U	20
DIBENZO(A,H)ANTHRACENE	9.1 U	8.8 U	9.3 U	9 U	9.8 U	9.9 U	9.3 U	9.4 U	9.6 U
FLUORANTHENE	7.3 U	7.1 U	7.5 U	7.3 U	7.9 U	8 U	7.5 U	7.6 U	57
FLUORENE	7.3 U	7.1 U	7.5 U	7.3 U	7.9 U	8 U	7.5 U	7.6 U	7.8 U
INDENO(1,2,3-CD)PYRENE	5.5 U	5.3 U	5.6 U	5.4 U	5.9 U	6 U	5.6 U	5.7 U	26
NAPHTHALENE	36 U	35 U	37 U	36 U	45	39 U	54	37 U	86
PHENANTHRENE	5.5 U	5.3 U	5.6 U	5.4 U	5.9 U	6 U	5.6 U	5.7 U	15
PYRENE	7.3 U	7.1 U	7.5 U	7.3 U	7.9 U	8 U	7.5 U	7.6 U	44
Inorganics (mg/kg)									
LEAD									48.5 J

APPENDIX C-1.4

SUPPLEMENTAL SOIL ANALYTIC RESULTS (APRIL AND JUNE 1999)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-644
SAMPLE NUMBER	CEF-15-SS-644
DEPTH	0-1
SAMPLE DATE	6/25/1999
SAMPLE CODE	NORMAL
Semivolatile Organics (ug/kg)	
1-METHYLNAPHTHALENE	160
2-METHYLNAPHTHALENE	150
ACENAPHTHENE	230
ACENAPHTHYLENE	190
ANTHRACENE	20
BENZO(A)ANTHRACENE	64
BENZO(A)PYRENE	99
BENZO(B)FLUORANTHENE	140
BENZO(G,H,I)PERYLENE	64
BENZO(K)FLUORANTHENE	51
CHRYSENE	25
DIBENZO(A,H)ANTHRACENE	13 U
FLUORANTHENE	120
FLUORENE	10 U
INDENO(1,2,3-CD)PYRENE	44
NAPHTHALENE	410
PHENANTHRENE	30
PYRENE	120
Inorganics (mg/kg)	
LEAD	32.9 J

E-1.5: SUPPLEMENTAL SOIL ANALYTICAL RESULTS
(MAY 2003 - AUGUST 2003)

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-519	CEF-015-SS-531	CEF-015-SS-531	CEF-015-SS-533	CEF-015-SS-617	CEF-015-SS-809	CEF-015-SS-810	CEF-015-SS-811
SAMPLE NUMBER	CEF-15-SS-802-02	CEF-15-SS-803-02	CEF-15-SS-803-02-D	CEF-15-SS-804-02	CEF-15-SS-801-02	CEF-15-SS-809-01	CEF-15-SS-810-01	CEF-15-SS-811-01
DEPTH	1-2	1-2	1-2	1-2	1-2	0-1	0-1	0-1
SAMPLE DATE	5/22/2003	5/22/2003	5/23/2003	5/22/2003	5/22/2003	5/23/2003	5/23/2003	5/23/2003
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)								
1-METHYLNAPHTHALENE								
2-METHYLNAPHTHALENE								
ACENAPHTHENE								
ACENAPHTHYLENE								
ANTHRACENE								
BENZO(A)ANTHRACENE								
BENZO(A)PYRENE								
BENZO(B)FLUORANTHENE								
BENZO(G,H,I)PERYLENE								
BENZO(K)FLUORANTHENE								
CHRYSENE								
DIBENZO(A,H)ANTHRACENE								
FLUORANTHENE								
FLUORENE								
INDENO(1,2,3-CD)PYRENE								
NAPHTHALENE								
PHENANTHRENE								
PYRENE								
Petroleum Hydrocarbons (mg/kg)								
TOTAL PETROLEUM HYDROCARBONS								
Inorganics (mg/kg)								
ARSENIC								
LEAD	3.4	2.3	3.4	0.37 U	50.1	4730	3.1	798
Miscellaneous Parameters (%)								
PERCENT SOLIDS	83	90.7	83.2	88.6	82.6	87.8	85.3	85.9

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-812	CEF-015-SS-813	CEF-015-SS-813	CEF-015-SS-814	CEF-015-SS-815	CEF-015-SS-816	CEF-015-SS-817	CEF-015-SS-818
SAMPLE NUMBER	CEF-15-SS-812-01	CEF-15-SS-813-01	CEF-15-SS-813-01-D	CEF-15-SS-814-01	CEF-15-SS-815-01	CEF-15-SS-816-01	CEF-15-SS-817-01	CEF-15-SS-818-01
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	5/23/2003	5/23/2003	5/23/2003	5/23/2003	5/23/2003	5/23/2003	5/23/2003	5/23/2003
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)								
1-METHYLNAPHTHALENE								
2-METHYLNAPHTHALENE								
ACENAPHTHENE								
ACENAPHTHYLENE								
ANTHRACENE								
BENZO(A)ANTHRACENE								
BENZO(A)PYRENE								
BENZO(B)FLUORANTHENE								
BENZO(G,H,I)PERYLENE								
BENZO(K)FLUORANTHENE								
CHRYSENE								
DIBENZO(A,H)ANTHRACENE								
FLUORANTHENE								
FLUORENE								
INDENO(1,2,3-CD)PYRENE								
NAPHTHALENE								
PHENANTHRENE								
PYRENE								
Petroleum Hydrocarbons (mg/kg)								
TOTAL PETROLEUM HYDROCARBONS								
Inorganics (mg/kg)								
ARSENIC		1.6 U	3.3 U	0.4 U	0.79 U	1.4 U	1.1 U	1.9 U
LEAD	49							
Miscellaneous Parameters (%)								
PERCENT SOLIDS	89.2	74.2	69.9	66.7	71.4	70.9	64.2	68.6

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-819	CEF-015-SS-820	CEF-015-SS-821	CEF-015-SS-822	CEF-015-SS-823	CEF-015-SS-823	CEF-015-SS-901
SAMPLE NUMBER	CEF-15-SS-819-01	CEF-15-SS-820-01	CEF-15-SS-821-01	CEF-15-SS-822-01	CEF-15-SS-823-01	CEF-15-SS-823-01-D	CEF-15-SS-901-01
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	5/23/2003	5/23/2003	5/23/2003	5/23/2003	5/23/2003	5/23/2003	6/25/2003
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP	ORIG
Semivolatile Organics (ug/kg)							
1-METHYLNAPHTHALENE							
2-METHYLNAPHTHALENE							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS							
Inorganics (mg/kg)							
ARSENIC	3 U	99.5	2.8 U	1.7 U	0.55 U	7.9 J	44.5 J
LEAD							
Miscellaneous Parameters (%)							
PERCENT SOLIDS	69.4	64.5	76.2	69.9	72.8	70.9	57.8

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-901	CEF-015-SS-902	CF15SS007 (Con)	CF15SS008 (Con)	CF15SS009 (Con)	CF15SS009 (Con)	CF15SS009 (Con)
SAMPLE NUMBER	CEF-15-SS-901-01-D	CEF-15-SS-902-01	CEF-15-SS-825-02	CEF-15-SS-826-02	CEF-15-SS-903-02	CEF-15-SS-827-02	CEF-015-SU-904-03
DEPTH	0-1	0-1	1-2	1-2	0-2	1-2	2-3
SAMPLE DATE	6/25/2003	6/25/2003	5/23/2003	5/23/2003	6/25/2003	5/23/2003	7/29/2003
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)							
1-METHYLNAPHTHALENE			97 U	98 U		96 U	
2-METHYLNAPHTHALENE			97 U	98 U		96 U	
ACENAPHTHENE			190 U	200 U		190 U	
ACENAPHTHYLENE			190 U	200 U		190 U	
ANTHRACENE			190 U	200 U		190 U	
BENZO(A)ANTHRACENE			97 U	98 U		96 U	
BENZO(A)PYRENE			65.3 J	78 U		19 U	
BENZO(B)FLUORANTHENE			42.1 J	20 U		19 U	
BENZO(G,H,I)PERYLENE			51.3 J	20 U		19 U	
BENZO(K)FLUORANTHENE			28.1 J	20 U		19 U	
CHRYSENE			97 U	98 U		96 U	
DIBENZO(A,H)ANTHRACENE			19 U	20 U		19 U	
FLUORANTHENE			97 U	98 U		96 U	
FLUORENE			190 U	200 U		190 U	
INDENO(1,2,3-CD)PYRENE			47.1 J	20 U		19 U	
NAPHTHALENE			97 U	98 U		96 U	
PHENANTHRENE			190 U	200 U		190 U	
PYRENE			97 U	98 U		96 U	
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS					2380		7 U
Inorganics (mg/kg)							
ARSENIC	19.8 J	9.1 J			0.51 U		
LEAD							
Miscellaneous Parameters (%)							
PERCENT SOLIDS	60	49.4	85	83.9	80.5	84.2	80.9

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS009 (Con)	CF15SS045	CF15SS067	CF15SS094	CF15SS115	CF15SS127	CF15SS141
SAMPLE NUMBER	CEF-015-SU-904-03-D	CEF-15-SS-830-02	CEF-15-SS-832-02	CEF-15-SS-805-02	CEF-15-SS-833-02	CEF-15-SS-835-02	CEF-15-SS-836-02
DEPTH	2-3	1-2	1-2	1-2	1-2	1-2	1-2
SAMPLE DATE	7/29/2003	5/22/2003	5/23/2003	5/23/2003	5/22/2003	5/22/2003	5/22/2003
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)							
1-METHYLNAPHTHALENE		88 U	97 U		97 U	93 U	95 U
2-METHYLNAPHTHALENE		88 U	97 U		97 U	93 U	95 U
ACENAPHTHENE		180 U	190 U		190 U	750 U	190 U
ACENAPHTHYLENE		180 U	190 U		190 U	190 U	190 U
ANTHRACENE		180 U	190 U		190 U	190 U	190 U
BENZO(A)ANTHRACENE		88 U	97 U		97 U	163 J	95 U
BENZO(A)PYRENE		18 U	123		19 U	195	19 U
BENZO(B)FLUORANTHENE		18 U	72.9 J		19 U	116	19 U
BENZO(G,H,I)PERYLENE		18 U	114		19 U	178	19 U
BENZO(K)FLUORANTHENE		18 U	49.9 J		19 U	73.4 J	19 U
CHRYSENE		88 U	97 U		97 U	173 J	95 U
DIBENZO(A,H)ANTHRACENE		18 U	19 U		19 U	21.6 J	19 U
FLUORANTHENE		88 U	126 J		97 U	278 J	95 U
FLUORENE		180 U	190 U		190 U	190 U	190 U
INDENO(1,2,3-CD)PYRENE		18 U	82.7		19 U	132	19 U
NAPHTHALENE		88 U	97 U		97 U	93 U	95 U
PHENANTHRENE		180 U	190 U		190 U	190 U	190 U
PYRENE		88 U	120 J		97 U	205 J	95 U
Petroleum Hydrocarbons (mg/kg)							
TOTAL PETROLEUM HYDROCARBONS	7.1 U						
Inorganics (mg/kg)							
ARSENIC							
LEAD				3.4			
Miscellaneous Parameters (%)							
PERCENT SOLIDS	78.3	92.8	83.8	84.2	85.2	87.4	86

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS213	CF15SS218	CF15SS235	CF15SS249	CF15SS262	CF15SS279	CF15SS279	CEF-015-SS-905
SAMPLE NUMBER	CEF-15-SS-807-02	CEF-15-SS-808-02	CEF-15-SS-834-02	CEF-15-SS-831-02	CEF-15-SS-828-02	CEF-15-SS-829-02	CEF-15-SS-829-02-D	CEF-15-SS-905-02
DEPTH	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2
SAMPLE DATE	5/22/2003	5/22/2003	5/22/2003	5/22/2003	5/22/2003	5/22/2003	5/23/2003	8/25/2003
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)								
1-METHYLNAPHTHALENE			100 U	98 U	97 U	99 U	820 U	
2-METHYLNAPHTHALENE			100 U	98 U	97 U	99 U	820 U	
ACENAPHTHENE			200 U	200 U	190 U	200 U	820 U	
ACENAPHTHYLENE			200 U	200 U	190 U	200 U	200 U	
ANTHRACENE			200 U	200 U	190 U	200 U	200 U	
BENZO(A)ANTHRACENE			100 U	98 U	97 U	99 UJ	983 J	
BENZO(A)PYRENE			20 U	85.3	19 U	73.1 J	1450 J	
BENZO(B)FLUORANTHENE			20 U	53 J	19 U	45.3 J	849 J	
BENZO(G,H,I)PERYLENE			20 U	62.6 J	19 U	67.4 J	1320 J	
BENZO(K)FLUORANTHENE			20 U	20 U	19 U	20 UJ	553 J	
CHRYSENE			100 U	98 U	97 U	99 UJ	1050 J	
DIBENZO(A,H)ANTHRACENE			20 U	20 U	19 U	20 UJ	154 J	
FLUORANTHENE			100 U	98 U	97 U	99 UJ	1570 J	
FLUORENE			200 U	200 U	190 U	200 U	200 U	
INDENO(1,2,3-CD)PYRENE			20 U	60.3 J	19 U	50.9 J	965 J	
NAPHTHALENE			100 U	98 U	97 U	99 U	100 U	
PHENANTHRENE			200 U	200 U	190 U	200 UJ	416 J	
PYRENE			100 U	98 U	97 U	99 UJ	1420 J	
Petroleum Hydrocarbons (mg/kg)								
TOTAL PETROLEUM HYDROCARBONS								12 U
Inorganics (mg/kg)								
ARSENIC								
LEAD	4.3	1.7 U						
Miscellaneous Parameters (%)								
PERCENT SOLIDS	83	78.1	82.1	84.5	85	84.2	79.8	

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-906	CEF-015-SS-906	CEF-015-SS-907	CEF-015-SS-908
SAMPLE NUMBER	CEF-15-SS-906-02	CEF-15-SS-905-02-D	CEF-15-SS-907-02	CEF-15-SS-908-02
DEPTH	1-2	1-2	1-2	1-2
SAMPLE DATE	8/25/2003	8/25/2003	8/25/2003	8/25/2003
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL
Semivolatile Organics (ug/kg)				
1-METHYLNAPHTHALENE				
2-METHYLNAPHTHALENE				
ACENAPHTHENE				
ACENAPHTHYLENE				
ANTHRACENE				
BENZO(A)ANTHRACENE				
BENZO(A)PYRENE				
BENZO(B)FLUORANTHENE				
BENZO(G,H,I)PERYLENE				
BENZO(K)FLUORANTHENE				
CHRYSENE				
DIBENZO(A,H)ANTHRACENE				
FLUORANTHENE				
FLUORENE				
INDENO(1,2,3-CD)PYRENE				
NAPHTHALENE				
PHENANTHRENE				
PYRENE				
Petroleum Hydrocarbons (mg/kg)				
TOTAL PETROLEUM HYDROCARBONS	22.4	103	9.74 J	41.2
Inorganics (mg/kg)				
ARSENIC				
LEAD				
Miscellaneous Parameters (%)				
PERCENT SOLIDS				

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS001	CF15SS002	CF15SS003	CF15SS004	CF15SS005	CF15SS006
SAMPLE NUMBER	CF-15-SS001 [08/01/94]	CF-15-SS002 [08/01/94]	CF-15-SS003 [08/01/94]	CF-15-SS004 [08/01/94]	CF-15-SS005 [08/01/94]	CF-15-SS006 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	2900	200 U	200 U	200 U
BENZO(A)ANTHRACENE	520	530	6600	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	410	5300	3400	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	200 U	200 U
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	1100	1700	21000	13000	640	420
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	7100	1000	200 U	200 U
PYRENE	1500	2100	17000	10000	610	310
Inorganics (mg/kg)						
LEAD	19	22	129	234	823	502

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007	CF15SS008	CF15SS009	CF15SS010	CF15SS011	CF15SS012
SAMPLE NUMBER	CF-15-SS007 [08/01/94]	CF-15-SS008 [08/01/94]	CF-15-SS009 [08/01/94]	CF-15-SS010 [08/01/94]	CF-15-SS011 [08/01/94]	CF-15-SS012 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	230000	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	11000	410	240
BENZO(A)ANTHRACENE	50000	7500	69000	40000	890	1800
BENZO(A)PYRENE	200 U	5600	200 U	9300	870	2200
BENZO(B)FLUORANTHENE	400 U	6200	400 U	33000	850	2000
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	9200	610	890
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	18000	520	1200
CHRYSENE	56000	200 U	70000	43000	200 U	1200
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	21000	400 U	960
FLUORANTHENE	130000	21000	200000	99000	3100	4200
FLUORENE	400 U	400 U	400 U	13000	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	14000	1200	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	38000	6000	60000	28000	200 U	1100
PYRENE	180000	16000	190000	110000	3200	4400
Inorganics (mg/kg)						
LEAD	226	0	102	167	297	1240

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS013	CF15SS013	CF15SS014	CF15SS015	CF15SS016	CF15SS017
SAMPLE NUMBER	CF-15-SS013 [08/01/94]	CF-15-SS013 [08/01/94]-D	CF-15-SS014 [08/01/94]	CF-15-SS015 [08/01/94]	CF-15-SS016 [08/01/94]	CF-15-SS017 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	4800	22000	280000	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	1600	25000	200 U
BENZO(A)ANTHRACENE	200 U	200 U	1200	4000	56000	48000
BENZO(A)PYRENE	200 U	200 U	200 U	4100	51000	34000
BENZO(B)FLUORANTHENE	400 U	400 U	1000	4200	48000	41000
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	2100	400 U	29000
BENZO(K)FLUORANTHENE	200 U	200 U	410	1900	200 U	16000
CHRYSENE	200 U	200 U	970	4700	89000	13000
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	1200	400 U	19000
FLUORANTHENE	400 U	400 U	2900	14000	220000	130000
FLUORENE	400 U	400 U	460	2100	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	690	4600	88000	34000
PYRENE	200 U	200 U	3100	16000	230000	120000
Inorganics (mg/kg)						
LEAD	32		35	139	503	383

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS018	CF15SS019	CF15SS020	CF15SS021	CF15SS021	CF15SS022
SAMPLE NUMBER	CF-15-SS018 [08/01/94]	CF-15-SS019 [08/01/94]	CF-15-SS020 [08/01/94]	CF-15-SS021 [08/01/94]	CF-15-SS021 [08/01/94]-D	CF-15-SS022 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	190000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	740	200 U	200 U	200 U	200 U	200 U
BENZO(A)ANTHRACENE	2800	200 U	200 U	550	200 U	200 U
BENZO(A)PYRENE	2900	200 U	200 U	460	200 U	50000
BENZO(B)FLUORANTHENE	3000	400 U	400 U	820	400 U	44000
BENZO(G,H,I)PERYLENE	1500	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	1500	200 U	200 U	250	200 U	200 U
CHRYSENE	2900	200 U	200 U	450	200 U	97000
DIBENZO(A,H)ANTHRACENE	760	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	8700	400 U	400 U	1100	400 U	150000
FLUORENE	400 U	400 U	400 U	400 U	400 U	22000
INDENO(1,2,3-CD)PYRENE	1300	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	2500	200 U	200 U	310	200 U	45000
PYRENE	5100	200 U	200 U	1200	200 U	170000
Inorganics (mg/kg)						
LEAD	324	18	0	63		371

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS023	CF15SS024	CF15SS025	CF15SS026	CF15SS027	CF15SS028
SAMPLE NUMBER	CF-15-SS023 [08/01/94]	CF-15-SS024 [08/01/94]	CF-15-SS025 [08/01/94]	CF-15-SS026 [08/01/94]	CF-15-SS027 [08/01/94]	CF-15-SS028 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	6200	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	35000	200 U	350	200 U	200 U
BENZO(A)ANTHRACENE	25000	140000	200 U	560	200 U	200 U
BENZO(A)PYRENE	17000	17000	200 U	1900	200 U	4000
BENZO(B)FLUORANTHENE	400 U	51000	400 U	1500	400 U	4200
BENZO(G,H,I)PERYLENE	400 U	50000	400 U	1000	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	33000	200 U	780	200 U	2800
CHRYSENE	25000	120000	200 U	1800	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	15000	400 U	500	400 U	400 U
FLUORANTHENE	72000	380000	400 U	4400	480	12000
FLUORENE	400 U	400 U	400 U	570	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	47000	200 U	990	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	19000	120000	200 U	980	200 U	200 U
PYRENE	67000	280000	200 U	4200	390	14000
Inorganics (mg/kg)						
LEAD	388	607	0	82	27	328

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS029	CF15SS030	CF15SS031	CF15SS032	CF15SS033	CF15SS034
SAMPLE NUMBER	CF-15-SS029 [08/01/94]	CF-15-SS030 [08/01/94]	CF-15-SS031 [08/01/94]	CF-15-SS032 [08/01/94]	CF-15-SS033 [08/01/94]	CF-15-SS034 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	16000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	5600	200 U	200 U	880	200 U
BENZO(A)ANTHRACENE	260	19000	200 U	200 U	200 U	4500
BENZO(A)PYRENE	200 U	19000	200 U	200 U	200 U	2900
BENZO(B)FLUORANTHENE	400 U	18000	400 U	400 U	400 U	3300
BENZO(G,H,I)PERYLENE	400 U	13000	400 U	400 U	400 U	2100
BENZO(K)FLUORANTHENE	200 U	11000	200 U	200 U	200 U	1400
CHRYSENE	260	21000	200 U	200 U	200 U	4300
DIBENZO(A,H)ANTHRACENE	400 U	10000	400 U	400 U	400 U	1400
FLUORANTHENE	800	48000	400 U	400 U	670	11000
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	10000	200 U	200 U	200 U	1700
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	250	16000	200 U	200 U	200 U	3300
PYRENE	750	52000	200 U	200 U	200 U	8800
Inorganics (mg/kg)						
LEAD	561	387	0	0	571	80

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS034	CF15SS035	CF15SS036	CF15SS037	CF15SS038	CF15SS039
SAMPLE NUMBER	CF-15-SS034 [08/01/94]-D	CF-15-SS035 [08/01/94]	CF-15-SS036 [08/01/94]	CF-15-SS037 [08/01/94]	CF-15-SS038 [08/01/94]	CF-15-SS039 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	51000	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	2200	200 U	2200	200 U	200 U	200 U
BENZO(A)ANTHRACENE	8700	4000	9000	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	2600	6000	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	6700	2600	7800	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	7600	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	7400	200 U	3500	200 U	200 U	200 U
CHRYSENE	7700	4400	11000	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	6500	400 U	400 U	400 U
FLUORANTHENE	26000	13000	22000	400 U	400 U	400 U
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	5200	200 U	200 U	200 U	200 U
PYRENE	24000	13000	24000	200 U	200 U	200 U
Inorganics (mg/kg)						
LEAD		341	191	0	0	163

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS040	CF15SS041	CF15SS042	CF15SS043	CF15SS044	CF15SS045
SAMPLE NUMBER	CF-15-SS040 [08/01/94]	CF-15-SS041 [08/01/94]	CF-15-SS042 [08/01/94]	CF-15-SS043 [08/01/94]	CF-15-SS044 [08/01/94]	CF-15-SS045 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	12000	200 U	200 U	200 U
BENZO(A)ANTHRACENE	47000	6300	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	3400	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	3400	26000	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	1700	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	200 U	200 U
CHRYSENE	36000	4200	37000	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	100000	15000	97000	400 U	400 U	400 U
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	1800	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	4400	42000	200 U	200 U	200 U
PYRENE	110000	17000	100000	200 U	200 U	200 U
Inorganics (mg/kg)						
LEAD	92	269	276	0	0	

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS046	CF15SS047	CF15SS047	CF15SS048	CF15SS049	CF15SS050
SAMPLE NUMBER	CF-15-SS046 [08/01/94]	CF-15-SS047 [08/01/94]	CF-15-SS047 [08/01/94]-D	CF-15-SS048 [08/01/94]	CF-15-SS049 [08/01/94]	CF-15-SS050 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	8200
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	34000	12000	540
BENZO(A)ANTHRACENE	200 U	4700	3500	200 U	200 U	1600
BENZO(A)PYRENE	200 U	2500	200 U	74000	35000	710
BENZO(B)FLUORANTHENE	400 U	400 U	2800	77000	37000	2200
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	25000	14000	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	42000	24000	1100
CHRYSENE	200 U	5000	3700	100000	200 U	2100
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	330
FLUORANTHENE	400 U	14000	9800	240000	120000	5500
FLUORENE	400 U	22000	400 U	400 U	18000	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	22000	17000	540
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	4100	3100	100000	39000	1200
PYRENE	200 U	16000	11000	250000	130000	5400
Inorganics (mg/kg)						
LEAD	29	60		850	334	60

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS050	CF15SS051	CF15SS052	CF15SS053	CF15SS054	CF15SS055
SAMPLE NUMBER	CF-15-SS050 [08/01/94]-D	CF-15-SS051 [08/01/94]	CF-15-SS052 [08/01/94]	CF-15-SS053 [08/01/94]	CF-15-SS054 [08/01/94]	CF-15-SS055 [08/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	14000	2000 U	2000 U	2000 U	410000	280000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	740	200 U	4200	200 U	26000	21000
BENZO(A)ANTHRACENE	2000	200 U	12000	27000	110000	71000
BENZO(A)PYRENE	780	25000	13000	200 U	17000	47000
BENZO(B)FLUORANTHENE	2600	25000	15000	21000	75000	61000
BENZO(G,H,I)PERYLENE	1200	400 U	4000	400 U	34000	28000
BENZO(K)FLUORANTHENE	1000	14000	8900	200 U	26000	24000
CHRYSENE	2700	39000	19000	25000	82000	200 U
DIBENZO(A,H)ANTHRACENE	720	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	6000	81000	34000	70000	290000	210000
FLUORENE	1200	400 U	7000	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	1100	200 U	6900	200 U	24000	26000
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	1900	24000	13000	15000	93000	77000
PYRENE	5800	97000	29000	69000	270000	190000
Inorganics (mg/kg)						
LEAD		244	434	169	579	425

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS056	CF15SS057	CF15SS058	CF15SS059	CF15SS060	CF15SS060	CF15SS060
SAMPLE NUMBER	CF-15-SS056 [08/01/94]	CF-15-SS057 [08/01/94]	CF-15-SS058 [08/01/94]	CF-15-SS059 [08/01/94]	CF15SS060	CF-15-SS060 [08/01/94]	CF-15-SS060 [08/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	5/6/1997	8/1/1994	8/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)							
ACENAPHTHENE	2000 U	2000 U	2000 U	140000		2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U		4000 U	4000 U
ANTHRACENE	25000	22000	2600	200 U		37000	200 U
BENZO(A)ANTHRACENE	61000	70000	7100	200 U		120000	15000
BENZO(A)PYRENE	200 U	37000	8400	200 U		200 U	4800
BENZO(B)FLUORANTHENE	14000	12000	8700	29000		16000	22000
BENZO(G,H,I)PERYLENE	41000	34000	2900	400 U		17000	12000
BENZO(K)FLUORANTHENE	68000	17000	4500	12000		80000	8800
CHRYSENE	200 U	200 U	11000	38000		200 U	200 U
DIBENZO(A,H)ANTHRACENE	46000	30000	400 U	400 U		48000	400 U
FLUORANTHENE	38000	130000	22000	100000		250000	50000
FLUORENE	400 U	400 U	5000	400 U		400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	3400	200 U		200 U	10000
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U		2000 U	2000 U
PHENANTHRENE	67000	26000	7200	200 U		53000	14000
PYRENE	150000	73000	26000	100000		140000	44000
Inorganics (mg/kg)							
LEAD	739	275	293	431	824		

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS061	CF15SS062	CF15SS063	CF15SS064	CF15SS064	CF15SS065
SAMPLE NUMBER	CF-15-SS061 [08/01/94]	CF-15-SS062 [08/01/94]	CF-15-SS063 [08/01/94]	CF-15-SS064 [08/01/94]	CF-15-SS064 [08/01/94]-D	CF-15-SS065 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	8/1/1994	8/1/1994	8/1/1994	8/1/1994	8/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	4800	2000 U	2000 U	8500
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	18000	770	4200	6400	560
BENZO(A)ANTHRACENE	21000	66000	200 U	200 U	200 U	2400
BENZO(A)PYRENE	200 U	200 U	1400	24000	26000	2400
BENZO(B)FLUORANTHENE	16000	400 U	1700	22000	28000	3000
BENZO(G,H,I)PERYLENE	400 U	38000	600	14000	7200	400 U
BENZO(K)FLUORANTHENE	200 U	47000	760	11000	11000	1600
CHRYSENE	23000	200 U	200 U	200 U	200 U	2900
DIBENZO(A,H)ANTHRACENE	400 U	400 U	820	400 U	400 U	1800
FLUORANTHENE	52000	120000	2300	60000	74000	6300
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	12000	6800	1400
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	13000	22000	590	17000	22000	1200
PYRENE	56000	66000	2900	36000	40000	7100
Inorganics (mg/kg)						
LEAD	265	314	13	778		46

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS065	CF15SS066	CF15SS067	CF15SS068	CF15SS069	CF15SS070
SAMPLE NUMBER	CF-15-SS065 [09/01/94]-D	CF-15-SS066 [09/01/94]	CF-15-SS067 [09/01/94]	CF-15-SS068 [09/01/94]	CF-15-SS069 [09/01/94]	CF-15-SS070 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	13000	2000 U	2000 U	2500	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	27000	200 U	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	20000	530	300	200 U
BENZO(A)PYRENE	4000	200 U	60000	400	200 U	200 U
BENZO(B)FLUORANTHENE	6300	400 U	43000	650	400 U	400 U
BENZO(G,H,I)PERYLENE	15000	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	2200	200 U	52000	280	200 U	200 U
CHRYSENE	200 U	200 U	200 U	730	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	26000	400 U	400 U	400 U
FLUORANTHENE	9000	400 U	170000	1800	750	400 U
FLUORENE	400 U	400 U	31000	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	1700	200 U	29000	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	1400	200 U	57000	300	200 U	200 U
PYRENE	9200	200 U	140000	2100	980	200 U
Inorganics (mg/kg)						
LEAD		47	138	1510	2530	126

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS071	CF15SS072	CF15SS073	CF15SS074	CF15SS075	CF15SS076
SAMPLE NUMBER	CF-15-SS071 [09/01/94]	CF-15-SS072 [09/01/94]	CF-15-SS073 [09/01/94]	CF-15-SS074 [09/01/94]	CF-15-SS075 [09/01/94]	CF-15-SS076 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	41000	163000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	2900	11000
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	2000	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	10000	24000
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	12000	27000
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	7300	16000
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	8900	14000
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	400 U	400 U	21000	83000
FLUORENE	400 U	400 U	400 U	400 U	4100	14000
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	3400	10000
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2700	2000 U
PHENANTHRENE	200 U	200 U	200 U	200 U	7000	29000
PYRENE	200 U	200 U	200 U	200 U	28000	66000
Inorganics (mg/kg)						
LEAD	2860	2880	295	0	275	243

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS077	CF15SS078	CF15SS079	CF15SS080	CF15SS081	CF15SS082
SAMPLE NUMBER	CF-15-SS077 [09/01/94]	CF-15-SS078 [09/01/94]	CF-15-SS079 [09/01/94]	CF-15-SS080 [09/01/94]	CF-15-SS081 [09/01/94]	CF-15-SS082 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	3600	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)ANTHRACENE	570	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	1300	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	1700	400 U	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	1100	200 U	200 U	200 U	200 U
CHRYSENE	1000	2000	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	2500	3000	400 U	400 U	400 U	400 U
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	560	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	400	710	200 U	200 U	200 U	200 U
PYRENE	2000	4300	200 U	200 U	200 U	200 U
Inorganics (mg/kg)						
LEAD	472	24	4440	1400	1030	5470

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS083	CF15SS084	CF15SS084	CF15SS085	CF15SS086	CF15SS087
SAMPLE NUMBER	CF-15-SS083 [09/01/94]	CF-15-SS084 [09/01/94]	CF-15-SS084 [09/01/94]-D	CF-15-SS085 [09/01/94]	CF-15-SS086 [09/01/94]	CF-15-SS087 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	200 U	200 U
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	200 U	200 U	200 U
PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
Inorganics (mg/kg)						
LEAD	2680	3380		1630	3410	348

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS088	CF15SS089	CF15SS090	CF15SS091	CF15SS092	CF15SS093
SAMPLE NUMBER	CF-15-SS088 [09/01/94]	CF-15-SS089 [09/01/94]	CF-15-SS090 [09/01/94]	CF-15-SS091 [09/01/94]	CF-15-SS092 [09/01/94]	CF-15-SS093 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	14000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	200 U	650
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	510	1100
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	400 U	1100
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	200 U	200 U
CHRYSENE	200 U	200 U	200 U	200 U	880	1600
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	400 U	400 U	2100	4500
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	200 U	630	1500
PYRENE	200 U	200 U	200 U	200 U	2400	5300
Inorganics (mg/kg)						
LEAD	3180	155	773	1710	2450	3150

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS094	CF15SS094	CF15SS095	CF15SS096	CF15SS097	CF15SS098
SAMPLE NUMBER	CF-15-SS094 [09/01/94]	CF-15-SS094 [09/01/94]-D	CF-15-SS095 [09/01/94]	CF-15-SS096 [09/01/94]	CF-15-SS097 [09/01/94]	CF-15-SS098 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	6700	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	510	200 U	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	1100	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	1000	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	1200	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	640	200 U	200 U	200 U
CHRYSENE	200 U	700	1600	350	200 U	580
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	320
FLUORANTHENE	400 U	400 U	4000	610	400 U	1300
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	1700	200 U	200 U	360
PYRENE	200 U	200 U	4200	500	200 U	1700
Inorganics (mg/kg)						
LEAD	30115		3620	3600	1430	1240

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS099	CF15SS100	CF15SS101	CF15SS102	CF15SS103	CF15SS104
SAMPLE NUMBER	CF-15-SS099 [09/01/94]	CF-15-SS100 [09/01/94]	CF-15-SS101 [09/01/94]	CF-15-SS102 [09/01/94]	CF-15-SS103 [09/01/94]	CF-15-SS104 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	140000	11000	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	11000	800	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	910	200 U	200 U
BENZO(A)PYRENE	310	200 U	17000	2900	200 U	200 U
BENZO(B)FLUORANTHENE	400	400 U	21000	3300	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	8600	1300	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	13000	1900	200 U	200 U
CHRYSENE	500	200 U	200 U	3600	660	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	7100	400 U	400 U	400 U
FLUORANTHENE	9800	400 U	72000	4300	840	400 U
FLUORENE	400 U	400 U	12000	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	7400	1200	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	2400	200 U	36000	2200	630	200 U
PYRENE	800	200 U	200 U	2200	630	200 U
Inorganics (mg/kg)						
LEAD	855	1830	20	88	2170	42

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS104	CF15SS105	CF15SS106	CF15SS107	CF15SS108	CF15SS109
SAMPLE NUMBER	CF-15-SS104 [09/01/94]-D	CF-15-SS105 [09/01/94]	CF-15-SS106 [09/01/94]	CF-15-SS107 [09/01/94]	CF-15-SS108 [09/01/94]	CF-15-SS109 [09/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	10000	15000	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	770	990	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	2200	560	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	2500	2400	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	3000	2900	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	1300	1300	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	1700	1700	200 U
CHRYSENE	200 U	200 U	200 U	3400	3400	980
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	1300	400 U
FLUORANTHENE	400 U	400 U	450	6100	6600	1900
FLUORENE	400 U	400 U	400 U	950	1300	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	1200	1100	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	2000	2800	200 U
PYRENE	200 U	200 U	1000	2000	1900	200 U
Inorganics (mg/kg)						
LEAD		57	78	73	84	246

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS110	CF15SS111	CF15SS112	CF15SS113	CF15SS114	CF15SS114
SAMPLE NUMBER	CF-15-SS110 [09/01/94]	CF-15-SS111 [09/01/94]	CF-15-SS112 [09/01/94]	CF-15-SS113 [09/01/94]	CF-15-SS114 [09/01/94]	CF-15-SS114 [09/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994	9/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2300	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	3800	4000	820
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	400 U	910
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	2600	200 U	500
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	400 U	5700	9200	2200
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	200 U	200 U	500
PYRENE	200 U	200 U	200 U	8700	200 U	3200
Inorganics (mg/kg)						
LEAD	50	0	0	23	0	

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS115	CF15SS116	CF15SS117	CF15SS118	CF15SS119	CF15SS120
SAMPLE NUMBER	CF-15-SS115 [09/01/94]	CF-15-SS116 [10/01/94]	CF-15-SS117 [10/01/94]	CF-15-SS118 [10/01/94]	CF-15-SS119 [10/01/94]	CF-15-SS120 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	9/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	230000	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	14000	200 U	200 U	200 U	460	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	31000	200 U	200 U	200 U	1200	200 U
BENZO(B)FLUORANTHENE	36000	400 U	400 U	400 U	1300	400 U
BENZO(G,H,I)PERYLENE	15000	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	20000	200 U	200 U	200 U	650	200 U
CHRYSENE	200 U	200 U	200 U	200 U	200 U	200 U
DIBENZO(A,H)ANTHRACENE	17000	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	93000	400 U	400 U	400 U	3700	400 U
FLUORENE	19000	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	14000	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	38000	200 U	200 U	200 U	1100	200 U
PYRENE	33000	200 U	200 U	200 U	2900	200 U
Inorganics (mg/kg)						
LEAD	28	83	17	321	70	131

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS121	CF15SS122	CF15SS123	CF15SS124	CF15SS125	CF15SS125
SAMPLE NUMBER	CF-15-SS121 [10/01/94]	CF-15-SS122 [10/01/94]	CF-15-SS123 [10/01/94]	CF-15-SS124 [10/01/94]	CF-15-SS125 [10/01/94]	CF-15-SS125 [10/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	4800	200 U	620	800	200 U	1300
BENZO(A)ANTHRACENE	200 U	550	1900	2100	200 U	1800
BENZO(A)PYRENE	200 U	200 U	2700	3200	200 U	4200
BENZO(B)FLUORANTHENE	400 U	400 U	2200	4000	400 U	5000
BENZO(G,H,I)PERYLENE	14000	400 U	1700	2200	400 U	2300
BENZO(K)FLUORANTHENE	13000	200 U	1300	2300	200 U	3100
CHRYSENE	200 U	200 U	2800	3700	200 U	5400
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	49000	400 U	5400	7100	2200	10000
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	1600	2000	200 U	2200
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	14000	200 U	1300	2000	610	2800
PYRENE	39000	200 U	3800	5400	1700	6500
Inorganics (mg/kg)						
LEAD	464	88	63	80	61	

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS126	CF15SS127	CF15SS128	CF15SS129	CF15SS130	CF15SS131
SAMPLE NUMBER	CF-15-SS126 [10/01/94]	CF-15-SS127 [10/01/94]	CF-15-SS128 [10/01/94]	CF-15-SS129 [10/01/94]	CF-15-SS130 [10/01/94]	CF-15-SS131 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	15000	12000	200 U	430	1100	200 U
BENZO(A)ANTHRACENE	43000	27000	200 U	1200	3600	200 U
BENZO(A)PYRENE	200 U	36000	200 U	1700	5000	200 U
BENZO(B)FLUORANTHENE	55000	400 U	400 U	1700	5200	400 U
BENZO(G,H,I)PERYLENE	33000	18000	400 U	1000	400 U	400 U
BENZO(K)FLUORANTHENE	53000	22000	200 U	860	2800	200 U
CHRYSENE	72000	51000	200 U	1800	5700	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	140000	110000	400 U	3900	9400	400 U
FLUORENE	25000	18000	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	33000	16000	200 U	1000	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	120000	33000	200 U	910	2700	200 U
PYRENE	380000	84000	200 U	3100	13000	200 U
Inorganics (mg/kg)						
LEAD	238	19	0	66	26	226

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS132	CF15SS133	CF15SS134	CF15SS135	CF15SS135	CF15SS136
SAMPLE NUMBER	CF-15-SS132 [10/01/94]	CF-15-SS133 [10/01/94]	CF-15-SS134 [10/01/94]	CF-15-SS135 [10/01/94]	CF-15-SS135 [10/01/94]-D	CF-15-SS136 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	500	200 U	200 U
BENZO(A)ANTHRACENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
BENZO(B)FLUORANTHENE	400 U	400 U	26000	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	730	200 U	200 U
CHRYSENE	200 U	200 U	200 U	200 U	200 U	540
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	400 U	400 U
FLUORANTHENE	400 U	400 U	28000	2600	400 U	1800
FLUORENE	400 U	400 U	400 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	200 U	200 U
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	1800	200 U	1200
PYRENE	200 U	200 U	31000	2700	200 U	1100
Inorganics (mg/kg)						
LEAD	2570	23	0	42		6630

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS137	CF15SS138	CF15SS139	CF15SS140	CF15SS141	CF15SS141
SAMPLE NUMBER	CF-15-SS137 [10/01/94]	CF-15-SS138 [10/01/94]	CF-15-SS139 [10/01/94]	CF-15-SS140 [10/01/94]	CF-15-SS141 [10/01/94]	CF-15-SS141 [10/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)						
ACENAPHTHENE	2000 U	2000 U	2000 U	2000 U	340000	12000
ACENAPHTHYLENE	4000 U	4000 U	4000 U	4000 U	4000 U	4000 U
ANTHRACENE	200 U	200 U	200 U	560	61000	1600
BENZO(A)ANTHRACENE	200 U	200 U	200 U	970	120000	3400
BENZO(A)PYRENE	200 U	200 U	200 U	200 U	65000	8700
BENZO(B)FLUORANTHENE	400 U	400 U	400 U	400 U	140000	5700
BENZO(G,H,I)PERYLENE	400 U	400 U	400 U	400 U	29000	2700
BENZO(K)FLUORANTHENE	200 U	200 U	200 U	200 U	46000	3900
CHRYSENE	200 U	200 U	200 U	1100	200 U	200 U
DIBENZO(A,H)ANTHRACENE	400 U	400 U	400 U	400 U	68000	3000
FLUORANTHENE	400 U	400 U	400 U	3600	420000	9700
FLUORENE	400 U	400 U	400 U	400 U	58000	400 U
INDENO(1,2,3-CD)PYRENE	200 U	200 U	200 U	200 U	40000	2300
NAPHTHALENE	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
PHENANTHRENE	200 U	200 U	200 U	2300	160000	2700
PYRENE	200 U	200 U	200 U	3500	84000	15000
Inorganics (mg/kg)						
LEAD	129	14	48	0	206	

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS142	CF15SS143	CF15SS144	CF15SS145	CF15SS146	CF15SS147
SAMPLE NUMBER	CF-15-SS142 [10/01/94]	CF-15-SS143 [10/01/94]	CF-15-SS144 [10/01/94]	CF-15-SS145 [10/01/94]	CF-15-SS146 [10/01/94]	CF-15-SS147 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	1790	3720	1440	3940	64.1	13.6

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS148	CF15SS149	CF15SS150	CF15SS151	CF15SS152	CF15SS153
SAMPLE NUMBER	CF-15-SS148 [10/01/94]	CF-15-SS149 [10/01/94]	CF-15-SS150 [10/01/94]	CF-15-SS151 [10/01/94]	CF-15-SS152 [10/01/94]	CF-15-SS153 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	12.2	8.5	4.8	2620	1140	3240

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS154	CF15SS155	CF15SS156	CF15SS157	CF15SS158	CF15SS159
SAMPLE NUMBER	CF-15-SS154 [10/01/94]	CF-15-SS155 [10/01/94]	CF-15-SS156 [10/01/94]	CF-15-SS157 [10/01/94]	CF-15-SS158 [10/01/94]	CF-15-SS159 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	554	178	79	12.9	3.3 U	4.1

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS160	CF15SS161	CF15SS161	CF15SS162	CF15SS163	CF15SS164
SAMPLE NUMBER	CF-15-SS160 [10/01/94]	CF-15-SS161 [10/01/94]	CF-15-SS161 [10/01/94]-D	CF-15-SS162 [10/01/94]	CF-15-SS163 [10/01/94]	CF-15-SS164 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	208	31	145	7	7.9	3.6

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS165	CF15SS166	CF15SS167	CF15SS168	CF15SS169	CF15SS170
SAMPLE NUMBER	CF-15-SS165 [10/01/94]	CF-15-SS166 [10/01/94]	CF-15-SS167 [10/01/94]	CF-15-SS168 [10/01/94]	CF-15-SS169 [10/01/94]	CF-15-SS170 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	2110	211	25.5	32.7	12.3	538

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS171	CF15SS171	CF15SS172	CF15SS173	CF15SS174	CF15SS175
SAMPLE NUMBER	CF-15-SS171 [10/01/94]	CF-15-SS171 [10/01/94]-D	CF-15-SS172 [10/01/94]	CF-15-SS173 [10/01/94]	CF-15-SS174 [10/01/94]	CF-15-SS175 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	1600	2100	9.8	13.5	5.2	3630

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS176	CF15SS177	CF15SS178	CF15SS179	CF15SS180	CF15SS181
SAMPLE NUMBER	CF-15-SS176 [10/01/94]	CF-15-SS177 [10/01/94]	CF-15-SS178 [10/01/94]	CF-15-SS179 [10/01/94]	CF-15-SS180 [10/01/94]	CF-15-SS181 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	4070	43.2	10.6	3.1 U	5320	4190

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS181	CF15SS182	CF15SS183	CF15SS184	CF15SS185	CF15SS186
SAMPLE NUMBER	CF-15-SS181 [10/01/94]-D	CF-15-SS182 [10/01/94]	CF-15-SS183 [10/01/94]	CF-15-SS184 [10/01/94]	CF-15-SS185 [10/01/94]	CF-15-SS186 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	4240	77.3	80	2.9	419	3410

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS187	CF15SS188	CF15SS189	CF15SS190	CF15SS191	CF15SS191
SAMPLE NUMBER	CF-15-SS187 [10/01/94]	CF-15-SS188 [10/01/94]	CF-15-SS189 [10/01/94]	CF-15-SS190 [10/01/94]	CF-15-SS191 [10/01/94]	CF-15-SS191 [10/01/94]-D
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	2630	34.2	9.6	1000	388	45.5

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS192	CF15SS193	CF15SS194	CF15SS195	CF15SS196	CF15SS197
SAMPLE NUMBER	CF-15-SS192 [10/01/94]	CF-15-SS193 [10/01/94]	CF-15-SS194 [10/01/94]	CF-15-SS195 [10/01/94]	CF-15-SS196 [10/01/94]	CF-15-SS197 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	769	17.3	3 U	522	3280	1300

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS198	CF15SS199	CF15SS200	CF15SS201	CF15SS201	CF15SS202
SAMPLE NUMBER	CF-15-SS198 [10/01/94]	CF-15-SS199 [10/01/94]	CF-15-SS200 [10/01/94]	CF-15-SS201 [10/01/94]	CF-15-SS201 [10/01/94]-D	CF-15-SS202 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	2.8 U	4.4	186	2540	2850	5250

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS203	CF15SS204	CF15SS205	CF15SS206	CF15SS207	CF15SS208
SAMPLE NUMBER	CF-15-SS203 [10/01/94]	CF-15-SS204 [10/01/94]	CF-15-SS205 [10/01/94]	CF-15-SS206 [10/01/94]	CF-15-SS207 [10/01/94]	CF-15-SS208 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
CHRYSENE						
DIBENZO(A,H)ANTHRACENE						
FLUORANTHENE						
FLUORENE						
INDENO(1,2,3-CD)PYRENE						
NAPHTHALENE						
PHENANTHRENE						
PYRENE						
Inorganics (mg/kg)						
LEAD	75.3	2.8 U	1390	117	2990	23.9

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS209	CF15SS210	CF15SS211	CF15SS211	CF15SS212	CF15SS213
SAMPLE NUMBER	CF-15-SS209 [10/01/94]	CF-15-SS210 [10/01/94]	CF-15-SS211 [10/01/94]	CF-15-SS211 [10/01/94]-D	CF-15-SS212 [10/01/94]	CF-15-SS213 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE		210 U	210 U			
ACENAPHTHYLENE		210 U	210 U			
ANTHRACENE		210 U	210 U			
BENZO(A)ANTHRACENE		210 U	210 U			
BENZO(A)PYRENE		210 U	210 U			
BENZO(B)FLUORANTHENE		210 U	210 U			
BENZO(G,H,I)PERYLENE		210 U	210 U			
BENZO(K)FLUORANTHENE		210 U	210 U			
CHRYSENE		210 U	210 U			
DIBENZO(A,H)ANTHRACENE		210 U	210 U			
FLUORANTHENE		210 U	210 U			
FLUORENE		210 U	210 U			
INDENO(1,2,3-CD)PYRENE		210 U	210 U			
NAPHTHALENE		210 U	210 U			
PHENANTHRENE		210 U	210 U			
PYRENE		210 U	210 U			
Inorganics (mg/kg)						
LEAD	4	3470	2310	3270	2260	25000

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SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS214	CF15SS215	CF15SS216	CF15SS217	CF15SS218	CF15SS219
SAMPLE NUMBER	CF-15-SS214 [10/01/94]	CF-15-SS215 [10/01/94]	CF-15-SS216 [10/01/94]	CF-15-SS217 [10/01/94]	CF-15-SS218 [10/01/94]	CF-15-SS219 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE				240 U		
ACENAPHTHYLENE				240 U		
ANTHRACENE				240 U		
BENZO(A)ANTHRACENE				240 U		
BENZO(A)PYRENE				240 U		
BENZO(B)FLUORANTHENE				240 U		
BENZO(G,H,I)PERYLENE				240 U		
BENZO(K)FLUORANTHENE				240 U		
CHRYSENE				240 U		
DIBENZO(A,H)ANTHRACENE				240 U		
FLUORANTHENE				240 U		
FLUORENE				240 U		
INDENO(1,2,3-CD)PYRENE				240 U		
NAPHTHALENE				240 U		
PHENANTHRENE				240 U		
PYRENE				240 U		
Inorganics (mg/kg)						
LEAD	254	43.8	6.1	488	65500	1900

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS220	CF15SS221	CF15SS221	CF15SS222	CF15SS223	CF15SS224
SAMPLE NUMBER	CF-15-SS220 [10/01/94]	CF-15-SS221 [10/01/94]	CF-15-SS221 [10/01/94]-D	CF-15-SS222 [10/01/94]	CF-15-SS223 [10/01/94]	CF-15-SS224 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	NORMAL	ORIG	DUP	NORMAL	NORMAL	ORIG
Semivolatile Organics (ug/kg)						
ACENAPHTHENE						220 U
ACENAPHTHYLENE						220 U
ANTHRACENE						220 U
BENZO(A)ANTHRACENE						690
BENZO(A)PYRENE						630
BENZO(B)FLUORANTHENE						890
BENZO(G,H,I)PERYLENE						390
BENZO(K)FLUORANTHENE						810
CHRYSENE						1100
DIBENZO(A,H)ANTHRACENE						220 U
FLUORANTHENE						1200
FLUORENE						220 U
INDENO(1,2,3-CD)PYRENE						220 U
NAPHTHALENE						220 U
PHENANTHRENE						340
PYRENE						1300
Inorganics (mg/kg)						
LEAD	1260	40	40	9.2	3.2	90.2

APPENDIX C-1.5

SUPPLEMENTAL SOIL ANALYTIC RESULTS (MAY AND AUGUST 2003)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS224	CF15SS225	CF15SS226	CF15SS227	CF15SS228	CF15SS229
SAMPLE NUMBER	CF-15-SS224 [10/01/94]-D	CF-15-SS225 [10/01/94]	CF-15-SS226 [10/01/94]	CF-15-SS227 [10/01/94]	CF-15-SS228 [10/01/94]	CF-15-SS229 [10/01/94]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	1/1/1995	10/1/1994	10/1/1994	10/1/1994	10/1/1994	10/1/1994
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)						
ACENAPHTHENE		200 U	210 U	9900 U	200 U	210 U
ACENAPHTHYLENE		200 U	210 U	9900 U	200 U	210 U
ANTHRACENE		200 U	210 U	9900 U	200 U	210 U
BENZO(A)ANTHRACENE		200 U	930	120000	240	280
BENZO(A)PYRENE		200 U	900	96000	200 U	210 U
BENZO(B)FLUORANTHENE		200 U	1400	120000	400	460
BENZO(G,H,I)PERYLENE		200 U	990	73000	200 U	210 U
BENZO(K)FLUORANTHENE		200 U	1300	9900 U	200 U	460
CHRYSENE		250	1400	140000	250	1100
DIBENZO(A,H)ANTHRACENE		200 U	210 U	11000	200 U	210 U
FLUORANTHENE		200 U	1800	170000	200 U	260
FLUORENE		200 U	210 U	9900 U	200 U	210 U
INDENO(1,2,3-CD)PYRENE		200 U	530	44000	200 U	210 U
NAPHTHALENE		200 U	210 U	9900 U	200 U	210 U
PHENANTHRENE		200 U	530	45000	200 U	210 U
PYRENE		200 U	1800	160000	200 U	290
Inorganics (mg/kg)						
LEAD	26.4		181		5.1	866

E-2: GROUNDWATER

LOCATION	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-02S	CEF-015-02S
NSAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-1S-01-D	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-DUP-01	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE DATE	04/01/98	04/18/00	04/19/00	05/22/00	08/10/95	08/10/95	08/10/95	08/30/06	08/14/95	08/14/95
Volatile Organics (ug/L)										
1,1,1-TRICHLOROETHANE					1 U		1 U		1 U	
1,1,2,2-TETRACHLOROETHANE					1 U		1 U		1 U	
1,1,2-TRICHLOROETHANE					1 U		1 U		1 U	
1,1-DICHLOROETHANE					1 U		1 U		1 U	
1,1-DICHLOROETHENE					1 U		1 U		1 U	
1,2-DIBROMOETHANE										
1,2-DICHLOROETHANE					1 U		1 U		1 U	
1,2-DICHLOROPROPANE					1 U		1 U		1 U	
2-BUTANONE					2 U		2 U		2 U	
2-CHLOROETHYL VINYL ETHER										
2-HEXANONE					2 U		2 U		2 U	
4-METHYL-2-PENTANONE					2 U		2 U		2 U	
ACETONE					2 U		98		2 U	
BENZENE					1 U		1 U		1 U	
BROMODICHLOROMETHANE					1 U		1 U		1 U	
BROMOFORM					1 U		1 U		1 U	
BROMOMETHANE					2 U		2 U		2 U	
CARBON DISULFIDE					1 U		1 U		1 U	
CARBON TETRACHLORIDE					1 U		1 U		1 U	
CHLOROBENZENE					1 U		1 U		1 U	
CHLORODIBROMOMETHANE					1 U		1 U		1 U	
CHLOROETHANE					2 U		2 U		2 U	
CHLOROFORM					1 U		1 U		1 U	
CHLOROMETHANE					2 U		2 U		2 U	
CIS-1,3-DICHLOROPROPENE					1 U		1 U		1 U	
DICHLORODIFLUOROMETHANE										
ETHYLBENZENE					1 U		1 U		1 U	
METHYL TERT-BUTYL ETHER										
METHYLENE CHLORIDE					1 U		2		1 U	
STYRENE					1 U		1 U		1 U	
TETRACHLOROETHENE					1 U		1 U		1 U	
TOLUENE					2 U		1 U		1 U	
TOTAL 1,2-DICHLOROETHENE					1 U		1 U		1 U	
TOTAL XYLENES					1 U		1 U		1 U	
TRANS-1,2-DICHLOROETHENE										
TRANS-1,3-DICHLOROPROPENE					1 U		1 U		1 U	
TRICHLOROETHENE					1 U		1 U		1 U	
TRICHLOROFLUOROMETHANE										
VINYL CHLORIDE					2 U		2 U		2 U	
Semivolatile Organics (ug/L)										
1,2,4-TRICHLOROBENZENE					10 U				10 U	
1,2-DICHLOROBENZENE					10 U				10 U	
1,3,5-TRINITROBENZENE					0.20 U				0.20 U	
1,3-DICHLOROBENZENE					10 U				10 U	
1,3-DINITROBENZENE					0.20 U				0.20 U	

LOCATION	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-02S	CEF-015-02S
NSAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-1S-01-D	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-DUP-01	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE DATE	04/01/98	04/18/00	04/19/00	05/22/00	08/10/95	08/10/95	08/10/95	08/30/06	08/14/95	08/14/95
1,4-DICHLOROBENZENE					10 U				10 U	
1-METHYLNAPHTHALENE		2 U	2 U							
2,2'-OXYBIS(1-CHLOROPROPANE)					10 U				10 U	
2,4,5-TRICHLOROPHENOL					25 U				25 U	
2,4,6-TRICHLOROPHENOL					10 U				10 U	
2,4-DICHLOROPHENOL					10 U				10 U	
2,4-DIMETHYLPHENOL					10 U				10 U	
2,4-DINITROPHENOL					25 U				25 U	
2,4-DINITROTOLUENE					10 U				10 U	
2,6-DINITROTOLUENE					10 U				10 U	
2-CHLORONAPHTHALENE					10 U				10 U	
2-CHLOROPHENOL					10 U				10 U	
2-METHYLNAPHTHALENE		2 U	2 U		10 U				10 U	
2-METHYLPHENOL					10 U				10 U	
2-NITROANILINE					25 U				25 U	
2-NITROPHENOL					10 U				10 U	
3,3'-DICHLOROBENZIDINE					10 U				10 U	
3-NITROANILINE					25 U				25 U	
4,6-DINITRO-2-METHYLPHENOL					25 U				25 U	
4-BROMOPHENYL PHENYL ETHER					10 U				10 U	
4-CHLORO-3-METHYLPHENOL					10 U				10 U	
4-CHLOROANILINE					10 U				10 U	
4-CHLOROPHENYL PHENYL ETHER					10 U				10 U	
4-METHYLPHENOL					10 U				10 U	
4-NITROANILINE					25 U				25 U	
4-NITROPHENOL					25 U				25 U	
ACENAPHTHENE		2 U	2 U		10 U				10 U	
ACENAPHTHYLENE		2 U	2 U		10 U				10 U	
ANTHRACENE		2 U	2 U		10 U				10 U	
BAP EQUIVALENT		0.10	0.10		5				5	
BENZO(A)ANTHRACENE		0.20 U	0.20 U		10 U				10 U	
BENZO(A)PYRENE		0.20 U	0.20 U		10 U				10 U	
BENZO(B)FLUORANTHENE		0.20 U	0.20 U		10 U				10 U	
BENZO(G,H,I)PERYLENE		0.20 U	0.20 U		10 U				10 U	
BENZO(K)FLUORANTHENE		0.20 U	0.20 U		10 U				10 U	
BIS(2-CHLOROETHOXY)METHANE					10 U				10 U	
BIS(2-CHLOROETHYL)ETHER					10 U				10 U	
BIS(2-ETHYLHEXYL)PHTHALATE					1 J				10 U	
BUTYL BENZYL PHTHALATE					10 U				10 U	
CARBAZOLE					10 U				10 U	
CHRYSENE		0.20 U	0.20 U		10 U				10 U	
DI-N-BUTYL PHTHALATE					10 U				10 U	
DI-N-OCTYL PHTHALATE					10 U				10 U	
DIBENZO(A,H)ANTHRACENE		0.20 U	0.20 U		10 U				10 U	
DIBENZOFURAN					10 U				10 U	
DIETHYL PHTHALATE					10 U				10 U	

LOCATION	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-02S	CEF-015-02S
NSAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-1S-01-D	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-DUP-01	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE DATE	04/01/98	04/18/00	04/19/00	05/22/00	08/10/95	08/10/95	08/10/95	08/30/06	08/14/95	08/14/95
DIMETHYL PHTHALATE					10 U				10 U	
FLUORANTHENE		2 U	2 U		10 U				10 U	
FLUORENE		2 U	2 U		10 U				10 U	
HEXACHLOROBENZENE					10 U				10 U	
HEXACHLOROBUTADIENE					10 U				10 U	
HEXACHLOROCYCLOPENTADIENE					10 U				10 U	
HEXACHLOROETHANE					10 U				10 U	
INDENO(1,2,3-CD)PYRENE		0.20 U	0.20 U		10 U				10 U	
ISOPHORONE					10 U				10 U	
N-NITROSO-DI-N-PROPYLAMINE					10 U				10 U	
N-NITROSODIPHENYLAMINE					10 U				10 U	
NAPHTHALENE		2 U	2 U		10 U				10 U	
NITROBENZENE					10 U				10 U	
PENTACHLOROPHENOL					25 U				25 U	
PHENANTHRENE		2 U	2 U		10 U				10 U	
PHENOL					10 U				10 U	
PYRENE		2 U	2 U		10 U				10 U	
TOTAL PAHS					10 U				10 U	
Pesticides/PCBs (ug/L)										
4,4'-DDD					0.10 UJ				0.10 UJ	
4,4'-DDE					0.10 UJ				0.10 UJ	
4,4'-DDT					0.10 UJ				0.10 UJ	
ALDRIN					0.05 UJ				0.05 UJ	
ALPHA-BHC					0.05 UJ				0.05 UJ	
ALPHA-CHLORDANE					0.05 UJ				0.05 UJ	
AROCLOR-1016					1 UJ				1 UJ	
AROCLOR-1221					2 UJ				2 UJ	
AROCLOR-1232					1 UJ				1 UJ	
AROCLOR-1242					1 UJ				1 UJ	
AROCLOR-1248					1 UJ				1 UJ	
AROCLOR-1254					1 UJ				1 UJ	
AROCLOR-1260					1 UJ				1 UJ	
BETA-BHC					0.05 UJ				0.05 UJ	
DELTA-BHC					0.05 UJ				0.05 UJ	
DIELDRIN					0.10 UJ				0.10 UJ	
ENDOSULFAN I					0.05 UJ				0.05 UJ	
ENDOSULFAN II					0.10 UJ				0.10 UJ	
ENDOSULFAN SULFATE					0.10 UJ				0.10 UJ	
ENDRIN					0.10 UJ				0.10 UJ	
ENDRIN ALDEHYDE					0.10 UJ				0.10 UJ	
ENDRIN KETONE					0.10 UJ				0.10 UJ	
GAMMA-BHC (LINDANE)					0.05 UJ				0.05 UJ	
GAMMA-CHLORDANE					0.05 UJ				0.05 UJ	
HEPTACHLOR					0.05 UJ				0.05 UJ	
HEPTACHLOR EPOXIDE					0.05 UJ				0.05 UJ	
METHOXYCHLOR					0.50 UJ				0.50 UJ	

LOCATION	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-02S	CEF-015-02S
NSAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-1S-01-D	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-DUP-01	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE DATE	04/01/98	04/18/00	04/19/00	05/22/00	08/10/95	08/10/95	08/10/95	08/30/06	08/14/95	08/14/95
TOXAPHENE					5 UJ				5 UJ	
Explosives (ug/L)										
1,3,5-TRINITROBENZENE										
1,3-DINITROBENZENE										
2,4,6-TRINITROTOLUENE		3.9 U	3.9 U		0.20 U				0.20 U	
2,4-DINITROTOLUENE										
2,6-DINITROTOLUENE										
2-AMINO-4,6-DINITROTOLUENE										
2-NITROTOLUENE					0.40 UJ				0.40 UJ	
3-NITROTOLUENE		3.9 U	3.9 U		3.39				1.87	
4-AMINO-2,6-DINITROTOLUENE					0.20 U				0.20 U	
4-NITROTOLUENE		3.9 U	3.9 U		0.40 U				0.40 U	
HMX					0.40 U				0.40 U	
NITROBENZENE										
RDX					0.451			0.072 U	0.40 U	
TETRYL					0.20 U				0.20 U	
Petroleum Hydrocarbons (mg/L)										
TOTAL PETROLEUM HYDROCARBONS					0.50 U				0.50 U	
Radiochemistry (pci/L)										
AMERICIUM-241	0.01									
PLUTONIUM-238	0.01									
PLUTONIUM-241	-0.60									
TOTAL PLUTONIUM	0.00									
TOTAL URANIUM-233+234	0.10									
TRITIUM	-0.03									
URANIUM	0.00									
URANIUM-235	0.00									
Total Inorganics (ug/L)										
ALUMINUM					448				205	
ANTIMONY		2.4 U	2.4 U		2 U				2 U	
ARSENIC		3.4 U	3.4 U		4 U				4 U	
BARIUM					28.3				15	
BERYLLIUM					1 U				1 U	
CADMIUM					1 U				1 U	
CALCIUM					1850 U				5620	
CHROMIUM					1 U				1 U	
COBALT					1 U				1 U	
COPPER					3 U				4.7	
IRON					2670				3140	
LEAD		19.8	21.7	9 U	2 U				2 U	
MAGNESIUM					1270				1500	
MANGANESE					30				49.6	
MERCURY					0.20 U	0.20 UJ			0.20 U	0.20 UJ
NICKEL					12 U				17.5	
POTASSIUM					461 U				260 U	
SELENIUM					4 U				4 U	

LOCATION	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-01S	CEF-015-02S	CEF-015-02S
NSAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-1S-01-D	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE	CEF-15-1S	CEF-15-GW-1S-01	CEF-15-GW-DUP-01	CEF-15-GW-1S-02	CF15MW1S	CF15MW1S-R	CF15MW1ST	CEF-015-GW-01S-06	CF15MW2S	CF15MW2S-R
SAMPLE DATE	04/01/98	04/18/00	04/19/00	05/22/00	08/10/95	08/10/95	08/10/95	08/30/06	08/14/95	08/14/95
SILVER					1 U				1 U	
SODIUM					6800 J				4310 U	
THALLIUM					5 U				6.1 J	
VANADIUM					1 U				1 U	
ZINC					32.5 U				246	
Filtered Inorganics (ug/L)										
ALUMINUM					385					
ANTIMONY		2.4 U	2.4 U		8.1					
ARSENIC		3.4 U	3.4 U		4 U					
BARIUM					32.2					
BERYLLIUM					1 U					
CADMIUM					1 U					
CALCIUM					1750 U					
CHROMIUM					1 U					
COBALT					1.8					
COPPER					3 U					
IRON					2410					
LEAD		1.6 U	1.6 U	1.6 U	2 U					
MAGNESIUM					1230					
MANGANESE					29.1					
MERCURY					0.20 U	0.20 UJ				
NICKEL					12 U					
POTASSIUM					443 U					
SELENIUM					4 U					
SILVER					1 U					
SODIUM					6820 J					
THALLIUM					5.4 J					
VANADIUM					1.5					
ZINC					17.8 U					
Miscellaneous Parameters										
CYANIDE (UG/L)					3 UJ				3.8 J	
PERCHLORATE (UG/L)										
TOTAL ORGANIC CARBON (MG/L)										
Field Parameters										
DISSOLVED OXYGEN - METER (MG/L)										
OXIDATION REDUCTION POTENTIAL (MV)										
PH										
SPECIFIC CONDUCTANCE (MS/CM)										
TEMPERATURE (C)										
TURBIDITY (NTU)		501	501							

LOCATION	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-04S	CEF-015-04S
NSAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE DATE	04/18/00	07/16/03	02/17/05	04/04/97	04/18/00	08/17/95	08/17/95	08/17/95	08/21/95	04/17/00
Volatile Organics (ug/L)										
1,1,1-TRICHLOROETHANE				1 U		1 U		1 U	1 U	
1,1,2,2-TETRACHLOROETHANE				1 U		1 U		1 U	1 U	
1,1,2-TRICHLOROETHANE				1 U		1 U		1 U	1 U	
1,1-DICHLOROETHANE				1 U		1 U		1 U	1 U	
1,1-DICHLOROETHENE				1 U		1 U		1 U	1 U	
1,2-DIBROMOETHANE				0.02 U						
1,2-DICHLOROETHANE				1 U		1 U		1 U	1 U	
1,2-DICHLOROPROPANE				1 U		1 U		1 U	1 U	
2-BUTANONE						2 U		2 U	2 U	
2-CHLOROETHYL VINYL ETHER				0.00 U						
2-HEXANONE						2 U		2 U	2 U	
4-METHYL-2-PENTANONE						2 U		2 U	2 U	
ACETONE						7 U		30	2 U	
BENZENE				1 U		1 U		1 U	1 U	
BROMODICHLOROMETHANE				1 U		1 U		1 U	1 U	
BROMOFORM				1 U		1 U		1 U	1 U	
BROMOMETHANE				1 U		2 U		2 U	2 U	
CARBON DISULFIDE						1 U		1 U	1 U	
CARBON TETRACHLORIDE				1 U		1 U		1 U	1 U	
CHLOROBENZENE				1 U		1 U		1 U	1 U	
CHLORODIBROMOMETHANE				1 U		1 U		1 U	1 U	
CHLOROETHANE				1 U		2 U		2 U	2 U	
CHLOROFORM				2.4		1 U		1 U	1 U	
CHLOROMETHANE				1 U		2 U		2 U	2 U	
CIS-1,3-DICHLOROPROPENE				1 U		1 U		1 U	1 U	
DICHLORODIFLUOROMETHANE				1 U						
ETHYLBENZENE				1 U		1 U		1 U	1 U	
METHYL TERT-BUTYL ETHER				1 U						
METHYLENE CHLORIDE				1 U		1 U		1 U	1 U	
STYRENE						1 U		1 U	1 U	
TETRACHLOROETHENE				1 U		1 U		1 U	1 U	
TOLUENE				1 U		1 U		1 U	1 U	
TOTAL 1,2-DICHLOROETHENE						1 U		1 U	1 U	
TOTAL XYLENES				1 U		1 U		1 U	1 U	
TRANS-1,2-DICHLOROETHENE				1 U						
TRANS-1,3-DICHLOROPROPENE				1 U		1 U		1 U	1 U	
TRICHLOROETHENE				1 U		1 U		1 U	1 U	
TRICHLOROFLUOROMETHANE				1 U						
VINYL CHLORIDE				1 U		2 U		2 U	2 U	
Semivolatile Organics (ug/L)										
1,2,4-TRICHLOROBENZENE						10 U	40 U		10 U	
1,2-DICHLOROBENZENE				1 U		10 U	40 U		10 U	
1,3,5-TRINITROBENZENE						0.20 U			0.20 U	
1,3-DICHLOROBENZENE				1 U		10 U	40 U		10 U	
1,3-DINITROBENZENE						0.20 U			0.20 U	

LOCATION	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-04S	CEF-015-04S
NSAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE DATE	04/18/00	07/16/03	02/17/05	04/04/97	04/18/00	08/17/95	08/17/95	08/17/95	08/21/95	04/17/00
1,4-DICHLOROBENZENE				1 U		10 U	40 U		10 U	
1-METHYLNAPHTHALENE	2.2 U	0.27 U		2 U	2.2 U					2.2 U
2,2'-OXYBIS(1-CHLOROPROPANE)						10 U	40 U		10 U	
2,4,5-TRICHLOROPHENOL						25 U	100 U		25 U	
2,4,6-TRICHLOROPHENOL						10 U	40 U		10 U	
2,4-DICHLOROPHENOL						10 U	40 U		10 U	
2,4-DIMETHYLPHENOL						10 U	40 U		10 U	
2,4-DINITROPHENOL						25 U	100 U		25 U	
2,4-DINITROTOLUENE						10 U	40 U		10 U	
2,6-DINITROTOLUENE						10 U	40 U		10 U	
2-CHLORONAPHTHALENE						10 U	40 U		10 U	
2-CHLOROPHENOL						10 U	40 U		10 U	
2-METHYLNAPHTHALENE	2.2 U	0.27 U		2 U	2.2 U	10 U	40 U		10 U	2.2 U
2-METHYLPHENOL						10 U	40 U		10 U	
2-NITROANILINE						25 U	100 U		25 U	
2-NITROPHENOL						10 U	40 U		10 U	
3,3'-DICHLOROBENZIDINE						10 U	40 U		10 U	
3-NITROANILINE						25 U	100 U		25 U	
4,6-DINITRO-2-METHYLPHENOL						25 U	100 U		25 U	
4-BROMOPHENYL PHENYL ETHER						10 U	40 U		10 U	
4-CHLORO-3-METHYLPHENOL						10 U	40 U		10 U	
4-CHLOROANILINE						10 U	40 U		10 U	
4-CHLOROPHENYL PHENYL ETHER						10 U	40 U		10 U	
4-METHYLPHENOL						10 U	40 U		10 U	
4-NITROANILINE						25 U	100 U		25 U	
4-NITROPHENOL						25 U	100 U		25 U	
ACENAPHTHENE	2.2 U	0.53 U		2 U	2.2 U	10 U	40 U		10 U	2.2 U
ACENAPHTHYLENE	2.2 U	0.53 U		2 U	2.2 U	10 U	40 U		10 U	2.2 U
ANTHRACENE	2.2 U	0.27 U		2 U	2.2 U	10 U	40 U		10 U	2.2 U
BAP EQUIVALENT	0.11	0.055		0.05	0.11	5	20		5	0.11
BENZO(A)ANTHRACENE	0.22 U	0.11 U		0.10 U	0.22 U	10 U	40 U		10 U	0.22 U
BENZO(A)PYRENE	0.22 U	0.11 U		0.10 U	0.22 U	10 U	40 U		10 U	0.22 U
BENZO(B)FLUORANTHENE	0.22 U	0.11 U		0.10 U	0.22 U	10 U	40 U		10 U	0.22 U
BENZO(G,H,I)PERYLENE	0.22 U	0.11 U		0.20 U	0.22 U	10 U	40 U		10 U	0.22 U
BENZO(K)FLUORANTHENE	0.22 U	0.11 U		0.15 U	0.22 U	10 U	40 U		10 U	0.22 U
BIS(2-CHLOROETHOXY)METHANE						10 U	40 U		10 U	
BIS(2-CHLOROETHYL)ETHER						10 U	40 U		10 U	
BIS(2-ETHYLHEXYL)PHTHALATE						220 J	240		14	
BUTYL BENZYL PHTHALATE						10 U	40 U		10 U	
CARBAZOLE						10 U	40 U		10 U	
CHRYSENE	0.22 U	0.11 U		0.10 U	0.22 U	10 U	40 U		10 U	0.22 U
DI-N-BUTYL PHTHALATE						10 U	40 U		10 U	
DI-N-OCTYL PHTHALATE						10 U	40 U		10 U	
DIBENZO(A,H)ANTHRACENE	0.22 U	0.11 U		0.20 U	0.22 U	10 U	40 U		10 U	0.22 U
DIBENZOFURAN						10 U	40 U		10 U	
DIETHYL PHTHALATE						10 U	40 U		10 U	

LOCATION	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-04S	CEF-015-04S
NSAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE DATE	04/18/00	07/16/03	02/17/05	04/04/97	04/18/00	08/17/95	08/17/95	08/17/95	08/21/95	04/17/00
DIMETHYL PHTHALATE						10 U	40 U		10 U	
FLUORANTHENE	2.2 U	0.27 U		0.20 U	2.2 U	10 U	40 U		10 U	2.2 U
FLUORENE	2.2 U	0.27 U		2 U	2.2 U	10 U	40 U		10 U	2.2 U
HEXACHLOROBENZENE						10 U	40 U		10 U	
HEXACHLOROBUTADIENE						10 U	40 U		10 U	
HEXACHLOROCYCLOPENTADIENE						10 U	40 U		10 U	
HEXACHLOROETHANE						10 U	40 U		10 U	
INDENO(1,2,3-CD)PYRENE	0.22 U	0.11 U		0.10 U	0.22 U	10 U	40 U		10 U	0.22 U
ISOPHORONE						10 U	40 U		10 U	
N-NITROSO-DI-N-PROPYLAMINE						10 U	40 U		10 U	
N-NITROSODIPHENYLAMINE						10 U	40 U		10 U	
NAPHTHALENE	2.2 U	0.27 U		2 U	2.2 U	0.50 J	40 U		10 U	2.2 U
NITROBENZENE						10 U	40 U		10 U	
PENTACHLOROPHENOL						25 U	100 U		25 U	
PHENANTHRENE	2.2 U	0.27 U		2 U	2.2 U	10 U	40 U		10 U	2.2 U
PHENOL						10 U	40 U		10 U	
PYRENE	2.2 U	0.27 U		0.20 U	2.2 U	10 U	40 U		10 U	2.2 U
TOTAL PAHS				0.10 U		70.5	40 U		10 U	
Pesticides/PCBs (ug/L)										
4,4'-DDD						0.10 U			0.10 U	
4,4'-DDE						0.10 U			0.10 U	
4,4'-DDT						0.10 U			0.10 U	
ALDRIN						0.05 U			0.05 U	
ALPHA-BHC						0.05 U			0.05 U	
ALPHA-CHLORDANE						0.05 U			0.05 U	
AROCLOR-1016						1 U			1 U	
AROCLOR-1221						2 U			2 U	
AROCLOR-1232						1 U			1 U	
AROCLOR-1242						1 U			1 U	
AROCLOR-1248						1 U			1 U	
AROCLOR-1254						1 U			1 U	
AROCLOR-1260						1 U			1 U	
BETA-BHC						0.05 U			0.05 U	
DELTA-BHC						0.05 U			0.05 U	
DIELDRIN						0.10 U			0.10 U	
ENDOSULFAN I						0.05 U			0.05 U	
ENDOSULFAN II						0.10 U			0.10 U	
ENDOSULFAN SULFATE						0.10 U			0.10 U	
ENDRIN						0.10 U			0.10 U	
ENDRIN ALDEHYDE						0.10 U			0.10 U	
ENDRIN KETONE						0.10 U			0.017 R	
GAMMA-BHC (LINDANE)						0.05 U			0.05 U	
GAMMA-CHLORDANE						0.05 U			0.05 U	
HEPTACHLOR						0.05 U			0.05 U	
HEPTACHLOR EPOXIDE						0.05 U			0.05 U	
METHOXYCHLOR						0.50 U			0.50 U	

LOCATION	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-04S	CEF-015-04S
NSAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE DATE	04/18/00	07/16/03	02/17/05	04/04/97	04/18/00	08/17/95	08/17/95	08/17/95	08/21/95	04/17/00
TOXAPHENE						5 U			5 U	
Explosives (ug/L)										
1,3,5-TRINITROBENZENE										
1,3-DINITROBENZENE										
2,4,6-TRINITROTOLUENE	5 U				5 U	0.20 U			0.20 U	5.2 U
2,4-DINITROTOLUENE										
2,6-DINITROTOLUENE										
2-AMINO-4,6-DINITROTOLUENE										
2-NITROTOLUENE						0.40 U			0.40 U	
3-NITROTOLUENE	5 U				5 U	3.29			2.11	5.2 U
4-AMINO-2,6-DINITROTOLUENE						0.20 U			0.20 U	
4-NITROTOLUENE	5 U				5 U	0.40 U			0.40 U	5.2 U
HMX						0.40 U			0.40 U	
NITROBENZENE										
RDX						0.40 U			0.40 U	
TETRYL						0.20 U			0.20 U	
Petroleum Hydrocarbons (mg/L)										
TOTAL PETROLEUM HYDROCARBONS				0.50 U		0.50 U			0.50 U	
Radiochemistry (pci/L)										
AMERICIUM-241										
PLUTONIUM-238										
PLUTONIUM-241										
TOTAL PLUTONIUM										
TOTAL URANIUM-233+234										
TRITIUM										
URANIUM										
URANIUM-235										
Total Inorganics (ug/L)										
ALUMINUM						635			500	
ANTIMONY	2.4 U				2.9 U	2 U			2 U	2.4 U
ARSENIC	3.4 U				3.4 U	4 U			4 U	3.4 U
BARIUM						17.3			26.9	
BERYLLIUM						1 U			1 U	
CADMIUM						1 U			1 U	
CALCIUM						2260 U			2570 U	
CHROMIUM						1 U			1 U	
COBALT						1 U			1.4 J	
COPPER						5.5			7.7	
IRON						1510			2200	
LEAD	1.6 U			5 U	2.1 U	2 U			2 U	1.6 U
MAGNESIUM						948			1260	
MANGANESE						16.1			17.8	
MERCURY						0.20 U			0.20 U	
NICKEL						12 U			12 U	
POTASSIUM						2010			262 U	
SELENIUM						4 U			4 U	

LOCATION	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-02S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-03S	CEF-015-04S	CEF-015-04S
NSAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE	CEF-15-GW-2S-01	CEF-015-GW-02S-02	CEF-015-GW-02S-03	CEF15-2S	CEF-15-GW-3S-01	CF15MW3S	CF15MW3SDL	CF15MW3ST	CF15MW4S	CEF-15-GW-4S-01
SAMPLE DATE	04/18/00	07/16/03	02/17/05	04/04/97	04/18/00	08/17/95	08/17/95	08/17/95	08/21/95	04/17/00
SILVER						1 U			1 U	
SODIUM						6810 J			3390 U	
THALLIUM						5 U			5 U	
VANADIUM						1 U			1 U	
ZINC						96			92	
Filtered Inorganics (ug/L)										
ALUMINUM						162				
ANTIMONY	2.9 U				2.4 U	4 J				2.4 U
ARSENIC	3.4 U				3.4 U	4 U				3.4 U
BARIUM						17				
BERYLLIUM						1 U				
CADMIUM						1 U				
CALCIUM						2340 U				
CHROMIUM						1 U				
COBALT						1 U				
COPPER						3 U				
IRON						1420				
LEAD	1.6 U				1.6 U	2 U				1.6 U
MAGNESIUM						927				
MANGANESE						17.4				
MERCURY						0.20 U				
NICKEL						12 U				
POTASSIUM						2040				
SELENIUM						4 U				
SILVER						1 U				
SODIUM						7030 J				
THALLIUM						5 U				
VANADIUM						1 U				
ZINC						109				
Miscellaneous Parameters										
CYANIDE (UG/L)						3 UJ			3 UJ	
PERCHLORATE (UG/L)			0.50 U							
TOTAL ORGANIC CARBON (MG/L)										
Field Parameters										
DISSOLVED OXYGEN - METER (MG/L)		0.19								
OXIDATION REDUCTION POTENTIAL (MV)		-93.90								
PH		5.87								
SPECIFIC CONDUCTANCE (MS/CM)		0.174								
TEMPERATURE (C)		22.61								
TURBIDITY (NTU)	4 U	0.00			52 U					10 U

LOCATION	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S
NSAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE DATE	04/17/00	08/21/95	08/21/95	08/21/95	08/30/06	08/15/95	08/15/95	08/15/95	08/15/95	04/18/00
Volatile Organics (ug/L)										
1,1,1-TRICHLOROETHANE		1 U	1 U	1 U		1 U		1 U	1 U	
1,1,2,2-TETRACHLOROETHANE		1 U	1 U	1 U		1 U		1 U	1 U	
1,1,2-TRICHLOROETHANE		1 U	1 U	1 U		1 U		1 U	1 U	
1,1-DICHLOROETHANE		1 U	1 U	1 U		1 U		1 U	1 U	
1,1-DICHLOROETHENE		1 U	1 U	1 U		1 U		1 U	1 U	
1,2-DIBROMOETHANE										
1,2-DICHLOROETHANE		1 U	1 U	1 U		1 U		1 U	1 U	
1,2-DICHLOROPROPANE		1 U	1 U	1 U		1 U		1 U	1 U	
2-BUTANONE		2 U	2 U	2 U		2 U		2 U	2 U	
2-CHLOROETHYL VINYL ETHER										
2-HEXANONE		2 U	2 U	2 U		2 U		2 U	2 U	
4-METHYL-2-PENTANONE		2 U	2 U	2 U		2 U		2 U	2 U	
ACETONE		2 U	2 U	46		2 U		2 U	46	
BENZENE		1 U	1 U	1 U		1 U		1 U	1 U	
BROMODICHLOROMETHANE		1 U	1 U	1 U		1 U		1 U	1 U	
BROMOFORM		1 U	1 U	1 U		1 U		1 U	1 U	
BROMOMETHANE		2 U	2 U	2 U		2 U		2 U	2 U	
CARBON DISULFIDE		1 U	1 U	1 U		1 U		1 U	1 U	
CARBON TETRACHLORIDE		1 U	1 U	1 U		1 U		1 U	1 U	
CHLOROBENZENE		1 U	1 U	1 U		1 U		1 U	1 U	
CHLORODIBROMOMETHANE		1 U	1 U	1 U		1 U		1 U	1 U	
CHLOROETHANE		2 U	2 U	2 U		2 U		2 U	2 U	
CHLOROFORM		1 U	1 U	1 U		1 U		1 U	1 U	
CHLOROMETHANE		2 U	2 U	2 U		2 U		2 U	2 U	
CIS-1,3-DICHLOROPROPENE		1 U	1 U	1 U		1 U		1 U	1 U	
DICHLORODIFLUOROMETHANE										
ETHYLBENZENE		1 U	1 U	1 U		1 U		1 U	1 U	
METHYL TERT-BUTYL ETHER										
METHYLENE CHLORIDE		1 U	1 U	1		1 U		1	1	
STYRENE		1 U	1 U	1 U		1 U		1 U	1 U	
TETRACHLOROETHENE		1 U	1 U	1 U		1 U		1 U	1 U	
TOLUENE		1 U	1 U	1 U		1 U		1 U	1 U	
TOTAL 1,2-DICHLOROETHENE		1 U	1 U	1 U		1 U		1 U	1 U	
TOTAL XYLENES		1 U	1 U	1 U		1 U		1 U	1 U	
TRANS-1,2-DICHLOROETHENE										
TRANS-1,3-DICHLOROPROPENE		1 U	1 U	1 U		1 U		1 U	1 U	
TRICHLOROETHENE		1 U	1 U	1 U		1 U		1 U	1 U	
TRICHLOROFLUOROMETHANE										
VINYL CHLORIDE		2 U	2 U	2 U		2 U		2 U	2 U	
Semivolatile Organics (ug/L)										
1,2,4-TRICHLOROBENZENE		10 U	10 U			10 U		10 U		
1,2-DICHLOROBENZENE		10 U	10 U			10 U		10 U		
1,3,5-TRINITROBENZENE		0.20 U	0.20 U			0.20 U		0.20 U		
1,3-DICHLOROBENZENE		10 U	10 U			10 U		10 U		
1,3-DINITROBENZENE		0.20 U	0.20 U			0.20 U		0.20 U		

LOCATION	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S
NSAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE DATE	04/17/00	08/21/95	08/21/95	08/21/95	08/30/06	08/15/95	08/15/95	08/15/95	08/15/95	04/18/00
1,4-DICHLOROBENZENE		10 U	10 U			10 U		10 U		
1-METHYLNAPHTHALENE	2 U									2.2 U
2,2'-OXYBIS(1-CHLOROPROPANE)		10 U	10 U			10 U		10 U		
2,4,5-TRICHLOROPHENOL		25 U	25 U			25 U		25 U		
2,4,6-TRICHLOROPHENOL		10 U	10 U			10 U		10 U		
2,4-DICHLOROPHENOL		10 U	10 U			10 U		10 U		
2,4-DIMETHYLPHENOL		10 U	10 U			10 U		10 U		
2,4-DINITROPHENOL		25 U	25 U			25 U		25 U		
2,4-DINITROTOLUENE		10 U	10 U			10 U		10 U		
2,6-DINITROTOLUENE		10 U	10 U			10 U		10 U		
2-CHLORONAPHTHALENE		10 U	10 U			10 U		10 U		
2-CHLOROPHENOL		10 U	10 U			10 U		10 U		
2-METHYLNAPHTHALENE	2 U	10 U	10 U			10 U		10 U		2.2 U
2-METHYLPHENOL		10 U	10 U			10 U		10 U		
2-NITROANILINE		25 U	25 U			25 U		25 U		
2-NITROPHENOL		10 U	10 U			10 U		10 U		
3,3'-DICHLOROBENZIDINE		10 U	10 U			10 U		10 U		
3-NITROANILINE		25 U	25 U			25 U		25 U		
4,6-DINITRO-2-METHYLPHENOL		25 U	25 U			25 U		25 U		
4-BROMOPHENYL PHENYL ETHER		10 U	10 U			10 U		10 U		
4-CHLORO-3-METHYLPHENOL		10 U	10 U			10 U		10 U		
4-CHLOROANILINE		10 U	10 U			10 U		10 U		
4-CHLOROPHENYL PHENYL ETHER		10 U	10 U			10 U		10 U		
4-METHYLPHENOL		10 U	10 U			10 U		10 U		
4-NITROANILINE		25 U	25 U			25 U		25 U		
4-NITROPHENOL		25 U	25 U			25 U		25 U		
ACENAPHTHENE	2 U	10 U	10 U			10 U		10 U		2.2 U
ACENAPHTHYLENE	2 U	10 U	10 U			10 U		10 U		2.2 U
ANTHRACENE	2 U	10 U	10 U			10 U		10 U		2.2 U
BAP EQUIVALENT	0.10	5	5			5		5		0.11
BENZO(A)ANTHRACENE	0.20 U	10 U	10 U			10 U		10 U		0.22 U
BENZO(A)PYRENE	0.20 U	10 U	10 U			10 U		10 U		0.22 U
BENZO(B)FLUORANTHENE	0.20 U	10 U	10 U			10 U		10 U		0.22 U
BENZO(G,H,I)PERYLENE	0.20 U	10 U	10 U			10 U		10 U		0.22 U
BENZO(K)FLUORANTHENE	0.20 U	10 U	10 U			10 U		10 U		0.22 U
BIS(2-CHLOROETHOXY)METHANE		10 U	10 U			10 U		10 U		
BIS(2-CHLOROETHYL)ETHER		10 U	10 U			10 U		10 U		
BIS(2-ETHYLHEXYL)PHTHALATE		2 J	14			10 U		10 U		
BUTYL BENZYL PHTHALATE		10 U	10 U			10 U		10 U		
CARBAZOLE		10 U	10 U			10 U		10 U		
CHRYSENE	0.20 U	10 U	10 U			10 U		10 U		0.22 U
DI-N-BUTYL PHTHALATE		10 U	10 U			10 U		10 U		
DI-N-OCTYL PHTHALATE		10 U	10 U			10 U		10 U		
DIBENZO(A,H)ANTHRACENE	0.20 U	10 U	10 U			10 U		10 U		0.22 U
DIBENZOFURAN		10 U	10 U			10 U		10 U		
DIETHYL PHTHALATE		10 U	10 U			10 U		10 U		

LOCATION	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S
NSAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE DATE	04/17/00	08/21/95	08/21/95	08/21/95	08/30/06	08/15/95	08/15/95	08/15/95	08/15/95	04/18/00
DIMETHYL PHTHALATE		10 U	10 U			10 U		10 U		
FLUORANTHENE	2 U	10 U	10 U			10 U		10 U		2.2 U
FLUORENE	2 U	10 U	10 U			10 U		10 U		2.2 U
HEXACHLOROBENZENE		10 U	10 U			10 U		10 U		
HEXACHLOROBUTADIENE		10 U	10 U			10 U		10 U		
HEXACHLOROCYCLOPENTADIENE		10 U	10 U			10 U		10 U		
HEXACHLOROETHANE		10 U	10 U			10 U		10 U		
INDENO(1,2,3-CD)PYRENE	0.20 U	10 U	10 U			10 U		10 U		0.22 U
ISOPHORONE		10 U	10 U			10 U		10 U		
N-NITROSO-DI-N-PROPYLAMINE		10 U	10 U			10 U		10 U		
N-NITROSODIPHENYLAMINE		10 U	10 U			10 U		10 U		
NAPHTHALENE	2 U	10 U	10 U			10 U		10 U		2.2 U
NITROBENZENE		10 U	10 U			10 U		10 U		
PENTACHLOROPHENOL		25 U	25 U			25 U		25 U		
PHENANTHRENE	2 U	10 U	10 U			10 U		10 U		2.2 U
PHENOL		10 U	10 U			10 U		10 U		
PYRENE	2 U	10 U	10 U			10 U		10 U		2.2 U
TOTAL PAHS		10 U	10 U			10 U		10 U		
Pesticides/PCBs (ug/L)										
4,4'-DDD		0.029 J	0.10 U			0.10 U		0.10 U		
4,4'-DDE		0.26	0.10 U		0.02 U	0.10 U		0.10 U		
4,4'-DDT		0.034 J	0.10 U			0.10 U		0.10 U		
ALDRIN		0.05 U	0.05 U			0.05 U		0.05 U		
ALPHA-BHC		0.05 U	0.05 U			0.05 U		0.05 U		
ALPHA-CHLORDANE		0.05 U	0.05 U			0.05 U		0.05 U		
AROCLOR-1016		1 U	1 U			1 U		1 U		
AROCLOR-1221		2 U	2 U			2 U		2 U		
AROCLOR-1232		1 U	1 U			1 U		1 U		
AROCLOR-1242		1 U	1 U			1 U		1 U		
AROCLOR-1248		1 U	1 U			1 U		1 U		
AROCLOR-1254		1 U	1 U			1 U		1 U		
AROCLOR-1260		1 U	1 U			1 U		1 U		
BETA-BHC		0.05 U	0.05 U			0.05 U		0.05 U		
DELTA-BHC		0.05 U	0.05 U			0.05 U		0.05 U		
DIELDRIN		0.10 U	0.10 U			0.10 U		0.10 U		
ENDOSULFAN I		0.05 U	0.05 U			0.05 U		0.05 U		
ENDOSULFAN II		0.10 U	0.10 U			0.10 U		0.10 U		
ENDOSULFAN SULFATE		0.10 U	0.10 U			0.10 U		0.10 U		
ENDRIN		0.10 U	0.10 U			0.10 U		0.10 U		
ENDRIN ALDEHYDE		0.10 U	0.10 U			0.10 U		0.10 U		
ENDRIN KETONE		0.10 U	0.10 U			0.10 U		0.10 U		
GAMMA-BHC (LINDANE)		0.05 U	0.05 U			0.05 U		0.05 U		
GAMMA-CHLORDANE		0.05 U	0.05 U			0.05 U		0.05 U		
HEPTACHLOR		0.05 U	0.05 U			0.05 U		0.05 U		
HEPTACHLOR EPOXIDE		0.05 U	0.05 U			0.05 U		0.05 U		
METHOXYCHLOR		0.50 U	0.50 U			0.50 U		0.50 U		

LOCATION	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S
NSAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE DATE	04/17/00	08/21/95	08/21/95	08/21/95	08/30/06	08/15/95	08/15/95	08/15/95	08/15/95	04/18/00
TOXAPHENE		5 U	5 U			5 U		5 U		
Explosives (ug/L)										
1,3,5-TRINITROBENZENE										
1,3-DINITROBENZENE										
2,4,6-TRINITROTOLUENE	5.2 U	0.20 U	0.20 U			0.20 U		0.20 U		5 U
2,4-DINITROTOLUENE										
2,6-DINITROTOLUENE										
2-AMINO-4,6-DINITROTOLUENE										
2-NITROTOLUENE		0.40 U	0.40 U			0.40 UJ		0.40 U		
3-NITROTOLUENE	5.2 U	2.62	2.06			1.89		0.40 U		5 U
4-AMINO-2,6-DINITROTOLUENE		0.20 U	0.20 U			0.20 U		0.20 U		
4-NITROTOLUENE	5.2 U	0.40 U	0.40 U			0.40 U		0.40 U		5 U
HMX		0.40 U	0.40 U			0.40 U		0.40 U		
NITROBENZENE										
RDX		0.404	0.40 U		0.073 U	0.40 U		0.40 U		
TETRYL		0.20 U	0.20 U			0.20 U		0.20 U		
Petroleum Hydrocarbons (mg/L)										
TOTAL PETROLEUM HYDROCARBONS		0.50 U	0.50 U			0.50 U		0.50 U		
Radiochemistry (pci/L)										
AMERICIUM-241										
PLUTONIUM-238										
PLUTONIUM-241										
TOTAL PLUTONIUM										
TOTAL URANIUM-233+234										
TRITIUM										
URANIUM										
URANIUM-235										
Total Inorganics (ug/L)										
ALUMINUM		419	570			364		70 U		
ANTIMONY	3.3 U	2 U	2 U			2 U		2 U		2.4 U
ARSENIC	3.9	4 U	4 U			4 U		4 U		3.4 U
BARIUM		14.3	14.3			17.9		1.2		
BERYLLIUM		1 U	1 U			1 U		1 U		
CADMIUM		1 U	1 U			1 U		1 U		
CALCIUM		936 U	829 U			3010 U		783		
CHROMIUM		1 U	1 U			1 U		1 U		
COBALT		1.7 J	1.9			1 U		1 U		
COPPER		9.3	5.5			6.4		3 U		
IRON		992	1010			832		14 U		
LEAD	1.6 U	2 U	2 U			2 U		2 U		1.6 U
MAGNESIUM		1050	1050			783		53		
MANGANESE		8.4	8.3			15.1		1 U		
MERCURY		0.20 U	0.20 U			0.20 U	0.20 UJ	0.20 U		
NICKEL		12 U	12 U			12 U		12 U		
POTASSIUM		163 U	139 U			117 U		92 U		
SELENIUM		4 U	4 U			4 U		4 U		

LOCATION	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-05S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S	CEF-015-06S
NSAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE	CEF-15-GW-5S-01	CF15MW5S	CF15MW5SD	CF15MW5ST	CEF-015-GW-05S-06	CF15MW6S	CF15MW6S-R	CF15MW6SR	CF15MW6ST	CEF-15-GW-6S-01
SAMPLE DATE	04/17/00	08/21/95	08/21/95	08/21/95	08/30/06	08/15/95	08/15/95	08/15/95	08/15/95	04/18/00
SILVER		1 U	1 U			1 U		1 U		
SODIUM		4880 U	4530 U			5510 J		987		
THALLIUM		5 U	5.6 J			5 U		5 U		
VANADIUM		1 U	1 U			1 U		1 U		
ZINC		26.6 U	19.2 U			25.1 U		7.6		
Filtered Inorganics (ug/L)										
ALUMINUM								70 U		
ANTIMONY	2.4 U							5.7		2.4 U
ARSENIC	3.4 U							4 U		3.4 U
BARIUM								4.9		
BERYLLIUM								1 U		
CADMIUM								1 U		
CALCIUM								701		
CHROMIUM								1 U		
COBALT								1 U		
COPPER								3 U		
IRON								14.4		
LEAD	1.6 U							2 U		1.6 U
MAGNESIUM								46.5		
MANGANESE								1 U		
MERCURY							0.20 U	0.20 U		
NICKEL								12 U		
POTASSIUM								92 U		
SELENIUM								4 U		
SILVER								1 U		
SODIUM								882		
THALLIUM								5 U		
VANADIUM								1 U		
ZINC								12.4		
Miscellaneous Parameters										
CYANIDE (UG/L)		3 UJ	3.3 J			3 UJ		4.4		
PERCHLORATE (UG/L)										
TOTAL ORGANIC CARBON (MG/L)		1	1					1 U		
Field Parameters										
DISSOLVED OXYGEN - METER (MG/L)										
OXIDATION REDUCTION POTENTIAL (MV)										
PH										
SPECIFIC CONDUCTANCE (MS/CM)										
TEMPERATURE (C)										
TURBIDITY (NTU)	-2.00 U									0.00 U

LOCATION	CEF-015-07S	CEF-015-07S	CEF-015-07S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-09S	CEF-015-10S	CEF-015-11S
NSAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE DATE	04/18/00	08/10/95	08/10/95	08/14/95	08/14/95	08/14/95	04/19/00	07/15/03	07/15/03	07/16/03
Volatile Organics (ug/L)										
1,1,1-TRICHLOROETHANE		1 U		1 U		1 U				
1,1,2,2-TETRACHLOROETHANE		1 U		1 U		1 U				
1,1,2-TRICHLOROETHANE		1 U		1 U		1 U				
1,1-DICHLOROETHANE		1 U		1 U		1 U				
1,1-DICHLOROETHENE		1 U		1 U		1 U				
1,2-DIBROMOETHANE										
1,2-DICHLOROETHANE		1 U		1 U		1 U				
1,2-DICHLOROPROPANE		1 U		1 U		1 U				
2-BUTANONE		2 U		2 U		2 U				
2-CHLOROETHYL VINYL ETHER										
2-HEXANONE		2 U		2 U		2 U				
4-METHYL-2-PENTANONE		2 U		2 U		2 U				
ACETONE		2 U		2 U		25				
BENZENE		1 U		1 U		1 U				
BROMODICHLOROMETHANE		1 U		1 U		1 U				
BROMOFORM		1 U		1 U		1 U				
BROMOMETHANE		2 U		2 U		2 U				
CARBON DISULFIDE		1 U		1 U		1 U				
CARBON TETRACHLORIDE		1 U		1 U		1 U				
CHLOROBENZENE		1 U		1 U		1 U				
CHLORODIBROMOMETHANE		1 U		1 U		1 U				
CHLOROETHANE		2 U		2 U		2 U				
CHLOROFORM		1 U		1 U		1 U				
CHLOROMETHANE		2 U		2 U		2 U				
CIS-1,3-DICHLOROPROPENE		1 U		1 U		1 U				
DICHLORODIFLUOROMETHANE										
ETHYLBENZENE		1 U		1 U		1 U				
METHYL TERT-BUTYL ETHER										
METHYLENE CHLORIDE		1 U		1 U		2				
STYRENE		1 U		1 U		1 U				
TETRACHLOROETHENE		1 U		1 U		1 U				
TOLUENE		1 U		1 U		1 U				
TOTAL 1,2-DICHLOROETHENE		1 U		1 U		1 U				
TOTAL XYLENES		1 U		1 U		1 U				
TRANS-1,2-DICHLOROETHENE										
TRANS-1,3-DICHLOROPROPENE		1 U		1 U		1 U				
TRICHLOROETHENE		1 U		1 U		1 U				
TRICHLOROFLUOROMETHANE										
VINYL CHLORIDE		2 U		2 U		2 U				
Semivolatile Organics (ug/L)										
1,2,4-TRICHLOROBENZENE		10 U		10 U						
1,2-DICHLOROBENZENE		10 U		10 U						
1,3,5-TRINITROBENZENE		0.20 U		0.20 U						
1,3-DICHLOROBENZENE		10 U		10 U						
1,3-DINITROBENZENE		0.20 U		0.20 U						

LOCATION	CEF-015-07S	CEF-015-07S	CEF-015-07S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-09S	CEF-015-10S	CEF-015-11S
NSAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE DATE	04/18/00	08/10/95	08/10/95	08/14/95	08/14/95	08/14/95	04/19/00	07/15/03	07/15/03	07/16/03
1,4-DICHLOROBENZENE		10 U		10 U						
1-METHYLNAPHTHALENE	2.2 U						2 U	0.26 U		0.26 U
2,2'-OXYBIS(1-CHLOROPROPANE)		10 U		10 U						
2,4,5-TRICHLOROPHENOL		25 U		25 U						
2,4,6-TRICHLOROPHENOL		10 U		10 U						
2,4-DICHLOROPHENOL		10 U		10 U						
2,4-DIMETHYLPHENOL		10 U		10 U						
2,4-DINITROPHENOL		25 U		25 U						
2,4-DINITROTOLUENE		10 U		10 U						
2,6-DINITROTOLUENE		10 U		10 U						
2-CHLORONAPHTHALENE		10 U		10 U						
2-CHLOROPHENOL		10 U		10 U						
2-METHYLNAPHTHALENE	2.2 U	10 U		10 U			2 U	0.26 U		0.26 U
2-METHYLPHENOL		10 U		10 U						
2-NITROANILINE		25 U		25 U						
2-NITROPHENOL		10 U		10 U						
3,3'-DICHLOROBENZIDINE		10 U		10 U						
3-NITROANILINE		25 U		25 U						
4,6-DINITRO-2-METHYLPHENOL		25 U		25 U						
4-BROMOPHENYL PHENYL ETHER		10 U		10 U						
4-CHLORO-3-METHYLPHENOL		10 U		10 U						
4-CHLOROANILINE		10 U		10 U						
4-CHLOROPHENYL PHENYL ETHER		10 U		10 U						
4-METHYLPHENOL		10 U		10 U						
4-NITROANILINE		25 U		25 U						
4-NITROPHENOL		25 U		25 U						
ACENAPHTHENE	2.2 U	10 U		10 U			2 U	0.52 U		0.53 U
ACENAPHTHYLENE	2.2 U	10 U		10 U			2 U	0.52 U		0.53 U
ANTHRACENE	2.2 U	10 U		10 U			2 U	0.26 U		0.26 U
BAP EQUIVALENT	0.11	5		5			0.10	0.05		0.055
BENZO(A)ANTHRACENE	0.22 U	10 U		10 U			0.20 U	0.10 U		0.11 U
BENZO(A)PYRENE	0.22 U	10 U		10 U			0.20 U	0.10 U		0.11 U
BENZO(B)FLUORANTHENE	0.22 U	10 U		10 U			0.20 U	0.10 U		0.11 U
BENZO(G,H,I)PERYLENE	0.22 U	10 U		10 U			0.20 U	0.10 U		0.11 U
BENZO(K)FLUORANTHENE	0.22 U	10 U		10 U			0.20 U	0.10 U		0.11 U
BIS(2-CHLOROETHOXY)METHANE		10 U		10 U						
BIS(2-CHLOROETHYL)ETHER		10 U		10 U						
BIS(2-ETHYLHEXYL)PHTHALATE		10 U		10 U						
BUTYL BENZYL PHTHALATE		10 U		10 U						
CARBAZOLE		10 U		10 U						1.1 U
CHRYSENE	0.22 U	10 U		10 U			0.20 U	0.10 U		0.11 U
DI-N-BUTYL PHTHALATE		10 U		10 U						
DI-N-OCTYL PHTHALATE		10 U		10 U						
DIBENZO(A,H)ANTHRACENE	0.22 U	10 U		10 U			0.20 U	0.10 U		0.11 U
DIBENZOFURAN		10 U		10 U						
DIETHYL PHTHALATE		10 U		10 U						

LOCATION	CEF-015-07S	CEF-015-07S	CEF-015-07S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-09S	CEF-015-10S	CEF-015-11S
NSAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE DATE	04/18/00	08/10/95	08/10/95	08/14/95	08/14/95	08/14/95	04/19/00	07/15/03	07/15/03	07/16/03
DIMETHYL PHTHALATE		10 U		10 U						
FLUORANTHENE	2.2 U	10 U		10 U			2 U	0.26 U		0.26 U
FLUORENE	2.2 U	10 U		10 U			2 U	0.26 U		0.26 U
HEXACHLOROBENZENE		10 U		10 U						
HEXACHLOROBUTADIENE		10 U		10 U						
HEXACHLOROCYCLOPENTADIENE		10 U		10 U						
HEXACHLOROETHANE		10 U		10 U						
INDENO(1,2,3-CD)PYRENE	0.22 U	10 U		10 U			0.20 U	0.10 U		0.11 U
ISOPHORONE		10 U		10 U						
N-NITROSO-DI-N-PROPYLAMINE		10 U		10 U						
N-NITROSODIPHENYLAMINE		10 U		10 U						
NAPHTHALENE	2.2 U	10 U		10 U			2 U	0.26 U		0.26 U
NITROBENZENE		10 U		10 U						
PENTACHLOROPHENOL		25 U		25 U						
PHENANTHRENE	2.2 U	10 U		10 U			2 U	0.26 U		0.26 U
PHENOL		10 U		10 U						
PYRENE	2.2 U	10 U		10 U			2 U	0.26 U		0.26 U
TOTAL PAHS		10 U		10 U						
Pesticides/PCBs (ug/L)										
4,4'-DDD		0.10 U		0.10 U						
4,4'-DDE		0.10 U		0.10 U						
4,4'-DDT		0.10 U		0.10 U						
ALDRIN		0.05 U		0.05 U						
ALPHA-BHC		0.05 U		0.05 U						
ALPHA-CHLORDANE		0.05 U		0.05 U						
AROCLOR-1016		1 U		1 U						
AROCLOR-1221		2 U		2 U						
AROCLOR-1232		1 U		1 U						
AROCLOR-1242		1 U		1 U						
AROCLOR-1248		1 U		1 U						
AROCLOR-1254		1 U		1 U						
AROCLOR-1260		1 U		1 U						
BETA-BHC		0.05 U		0.05 U						
DELTA-BHC		0.05 U		0.05 U						
DIELDRIN		0.10 U		0.10 U						
ENDOSULFAN I		0.05 U		0.05 U						
ENDOSULFAN II		0.10 U		0.10 U						
ENDOSULFAN SULFATE		0.10 U		0.10 U						
ENDRIN		0.10 U		0.10 U						
ENDRIN ALDEHYDE		0.10 U		0.10 U						
ENDRIN KETONE		0.10 U		0.10 U						
GAMMA-BHC (LINDANE)		0.05 U		0.05 U						
GAMMA-CHLORDANE		0.05 U		0.05 U						
HEPTACHLOR		0.05 U		0.05 U						
HEPTACHLOR EPOXIDE		0.05 U		0.05 U						
METHOXYCHLOR		0.50 U		0.50 U						

LOCATION	CEF-015-07S	CEF-015-07S	CEF-015-07S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-09S	CEF-015-10S	CEF-015-11S
NSAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE DATE	04/18/00	08/10/95	08/10/95	08/14/95	08/14/95	08/14/95	04/19/00	07/15/03	07/15/03	07/16/03
TOXAPHENE		5 U		5 U						
Explosives (ug/L)										
1,3,5-TRINITROBENZENE										0.054 U
1,3-DINITROBENZENE										0.054 U
2,4,6-TRINITROTOLUENE	18 U	0.20 U		0.20 U			6.5 U			0.054 U
2,4-DINITROTOLUENE										0.054 U
2,6-DINITROTOLUENE										0.054 U
2-AMINO-4,6-DINITROTOLUENE										0.054 U
2-NITROTOLUENE		0.40 UJ		0.40 UJ						0.054 U
3-NITROTOLUENE	18 U	2.46		2.53			6.5 U			0.054 U
4-AMINO-2,6-DINITROTOLUENE		0.20 U		0.20 U						0.054 U
4-NITROTOLUENE	18 U	0.40 U		0.40 U			6.5 U			0.081 U
HMX		0.40 U		0.40 U						0.081 U
NITROBENZENE										0.054 U
RDX		0.40 U		0.40 U						0.081 U
TETRYL		0.20 U		0.20 U						0.081 U
Petroleum Hydrocarbons (mg/L)										
TOTAL PETROLEUM HYDROCARBONS		0.50 U		0.50 U						
Radiochemistry (pci/L)										
AMERICIUM-241										
PLUTONIUM-238										
PLUTONIUM-241										
TOTAL PLUTONIUM										
TOTAL URANIUM-233+234										
TRITIUM										
URANIUM										
URANIUM-235										
Total Inorganics (ug/L)										
ALUMINUM		265		506						
ANTIMONY	2.4 U	2.2 J		2 J			42.9			
ARSENIC	3.4 U	4 U		4 U			3.4 U			
BARIUM		28.7		15.6						
BERYLLIUM		1		1 U						
CADMIUM		1 U		1 U						
CALCIUM		3370 U		6380						
CHROMIUM		1 U		1 U						
COBALT		1.5		1 U						
COPPER		8.7		3 U						
IRON		2010		633						
LEAD	1.6 U	2 U		2 U			2.3 U		3.4 U	
MAGNESIUM		1360		598						
MANGANESE		20.5		12.2						
MERCURY		0.20 U	0.20 UJ	0.20 U	0.20 UJ					
NICKEL		12 U		12 U						
POTASSIUM		296 U		235 U						
SELENIUM		4 U		4 U						

LOCATION	CEF-015-07S	CEF-015-07S	CEF-015-07S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-08S	CEF-015-09S	CEF-015-10S	CEF-015-11S
NSAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE	CEF-15-GW-7S-01	CF15MW7S	CF15MW7S-R	CF15MW8S	CF15MW8S-R	CF15MW8ST	CEF-15-GW-8S-01	CEF-015-GW-09S-02	CEF-015-GW-10S-02	CEF-015-GW-11S-02
SAMPLE DATE	04/18/00	08/10/95	08/10/95	08/14/95	08/14/95	08/14/95	04/19/00	07/15/03	07/15/03	07/16/03
SILVER		1 U		1 U						
SODIUM		10800 J		9390 J						
THALLIUM		5 J		5 U						
VANADIUM		1 U		1.8						
ZINC		28.5 U		8 U						
Filtered Inorganics (ug/L)										
ALUMINUM				85.7						
ANTIMONY	2.4 U			2.5			46.2			
ARSENIC	3.4 U			4 U			3.4 U			
BARIUM				15.1						
BERYLLIUM				1 U						
CADMIUM				1 U						
CALCIUM				6400						
CHROMIUM				1 U						
COBALT				1 U						
COPPER				3 U						
IRON				598						
LEAD	1.6 U			2 U			1.6 U			
MAGNESIUM				597						
MANGANESE				12.3						
MERCURY				0.20 U	0.20 UJ					
NICKEL				12 U						
POTASSIUM				227 U						
SELENIUM				4 U						
SILVER				11.2						
SODIUM				9560 J						
THALLIUM				5 U						
VANADIUM				1						
ZINC				18.9 U						
Miscellaneous Parameters										
CYANIDE (UG/L)		3 UJ		3.1 J						
PERCHLORATE (UG/L)										
TOTAL ORGANIC CARBON (MG/L)		1 U		4						
Field Parameters										
DISSOLVED OXYGEN - METER (MG/L)								0.57	0.50	0.85
OXIDATION REDUCTION POTENTIAL (MV)								131.4	107.9	91.4
PH								5.56	5.14	5.48
SPECIFIC CONDUCTANCE (MS/CM)								0.101	0.072	0.092
TEMPERATURE (C)								23.24	21.93	22
TURBIDITY (NTU)	3 U						131 U	0.00	0.00	6.2

LOCATION	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-12S	CEF-015-13S	CEF-015-13S
NSAMPLE	CEF-015-GW-11S-02-D	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-11S-03-D	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE	CEF-015-GW-DUP-02	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-DUP-03	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE DATE	07/16/03	02/17/05	02/17/05	02/17/05	07/15/03	07/15/03	03/15/06
Volatile Organics (ug/L)							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,2-DIBROMOETHANE							
1,2-DICHLOROETHANE							
1,2-DICHLOROPROPANE							
2-BUTANONE							
2-CHLOROETHYL VINYL ETHER							
2-HEXANONE							
4-METHYL-2-PENTANONE							
ACETONE							
BENZENE							
BROMODICHLOROMETHANE							
BROMOFORM							
BROMOMETHANE							
CARBON DISULFIDE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLORODIBROMOMETHANE							
CHLOROETHANE							
CHLOROFORM							
CHLOROMETHANE							
CIS-1,3-DICHLOROPROPENE							
DICHLORODIFLUOROMETHANE							
ETHYLBENZENE							
METHYL TERT-BUTYL ETHER							
METHYLENE CHLORIDE							
STYRENE							
TETRACHLOROETHENE							
TOLUENE							
TOTAL 1,2-DICHLOROETHENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
TRANS-1,3-DICHLOROPROPENE							
TRICHLOROETHENE							
TRICHLOROFLUOROMETHANE							
VINYL CHLORIDE							
Semivolatile Organics (ug/L)							
1,2,4-TRICHLOROBENZENE							
1,2-DICHLOROBENZENE							
1,3,5-TRINITROBENZENE							
1,3-DICHLOROBENZENE							
1,3-DINITROBENZENE							

LOCATION	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-12S	CEF-015-13S	CEF-015-13S
NSAMPLE	CEF-015-GW-11S-02-D	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-11S-03-D	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE	CEF-015-GW-DUP-02	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-DUP-03	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE DATE	07/16/03	02/17/05	02/17/05	02/17/05	07/15/03	07/15/03	03/15/06
1,4-DICHLOROBENZENE							
1-METHYLNAPHTHALENE	0.27 U						
2,2'-OXYBIS(1-CHLOROPROPANE)							
2,4,5-TRICHLOROPHENOL							
2,4,6-TRICHLOROPHENOL							
2,4-DICHLOROPHENOL							
2,4-DIMETHYLPHENOL							
2,4-DINITROPHENOL							
2,4-DINITROTOLUENE							
2,6-DINITROTOLUENE							
2-CHLORONAPHTHALENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE	0.27 U						
2-METHYLPHENOL							
2-NITROANILINE							
2-NITROPHENOL							
3,3'-DICHLOROBENZIDINE							
3-NITROANILINE							
4,6-DINITRO-2-METHYLPHENOL							
4-BROMOPHENYL PHENYL ETHER							
4-CHLORO-3-METHYLPHENOL							
4-CHLOROANILINE							
4-CHLOROPHENYL PHENYL ETHER							
4-METHYLPHENOL							
4-NITROANILINE							
4-NITROPHENOL							
ACENAPHTHENE	0.53 U						
ACENAPHTHYLENE	0.53 U						
ANTHRACENE	0.27 U						
BAP EQUIVALENT	0.055						
BENZO(A)ANTHRACENE	0.11 U						
BENZO(A)PYRENE	0.11 U						
BENZO(B)FLUORANTHENE	0.11 U						
BENZO(G,H,I)PERYLENE	0.11 U						
BENZO(K)FLUORANTHENE	0.11 U						
BIS(2-CHLOROETHOXY)METHANE							
BIS(2-CHLOROETHYL)ETHER							
BIS(2-ETHYLHEXYL)PHTHALATE							
BUTYL BENZYL PHTHALATE							
CARBAZOLE	1.1 U						
CHRYSENE	0.11 U						
DI-N-BUTYL PHTHALATE							
DI-N-OCTYL PHTHALATE							
DIBENZO(A,H)ANTHRACENE	0.11 U						
DIBENZOFURAN							
DIETHYL PHTHALATE							

LOCATION	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-12S	CEF-015-13S	CEF-015-13S
NSAMPLE	CEF-015-GW-11S-02-D	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-11S-03-D	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE	CEF-015-GW-DUP-02	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-DUP-03	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE DATE	07/16/03	02/17/05	02/17/05	02/17/05	07/15/03	07/15/03	03/15/06
DIMETHYL PHTHALATE							
FLUORANTHENE	0.27 U						
FLUORENE	0.27 U						
HEXACHLOROBENZENE							
HEXACHLOROBUTADIENE							
HEXACHLOROCYCLOPENTADIENE							
HEXACHLOROETHANE							
INDENO(1,2,3-CD)PYRENE	0.11 U						
ISOPHORONE							
N-NITROSO-DI-N-PROPYLAMINE							
N-NITROSODIPHENYLAMINE							
NAPHTHALENE	0.27 U						
NITROBENZENE							
PENTACHLOROPHENOL							
PHENANTHRENE	0.27 U						
PHENOL							
PYRENE	0.27 U						
TOTAL PAHS							
Pesticides/PCBs (ug/L)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
AROCLOR-1016							
AROCLOR-1221							
AROCLOR-1232							
AROCLOR-1242							
AROCLOR-1248							
AROCLOR-1254							
AROCLOR-1260							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							
HEPTACHLOR EPOXIDE							
METHOXYCHLOR							

LOCATION	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-12S	CEF-015-13S	CEF-015-13S
NSAMPLE	CEF-015-GW-11S-02-D	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-11S-03-D	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE	CEF-015-GW-DUP-02	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-DUP-03	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE DATE	07/16/03	02/17/05	02/17/05	02/17/05	07/15/03	07/15/03	03/15/06
TOXAPHENE							
Explosives (ug/L)							
1,3,5-TRINITROBENZENE	0.053 U				0.054 U		
1,3-DINITROBENZENE	0.053 U				0.054 U		
2,4,6-TRINITROTOLUENE	0.053 U				0.054 U		
2,4-DINITROTOLUENE	0.053 U				0.054 U		
2,6-DINITROTOLUENE	0.053 U				0.054 U		
2-AMINO-4,6-DINITROTOLUENE	0.053 U				0.054 U		
2-NITROTOLUENE	0.053 U				0.054 U		
3-NITROTOLUENE	0.053 U				0.054 U		
4-AMINO-2,6-DINITROTOLUENE	0.053 U				0.054 U		
4-NITROTOLUENE	0.08 U				0.081 U		
HMX	0.08 U				0.081 U		
NITROBENZENE	0.053 U				0.054 U		
RDX	0.08 U				0.081 U		
TETRYL	0.08 U				0.081 U		
Petroleum Hydrocarbons (mg/L)							
TOTAL PETROLEUM HYDROCARBONS							
Radiochemistry (pci/L)							
AMERICIUM-241							
PLUTONIUM-238							
PLUTONIUM-241							
TOTAL PLUTONIUM							
TOTAL URANIUM-233+234							
TRITIUM							
URANIUM							
URANIUM-235							
Total Inorganics (ug/L)							
ALUMINUM							
ANTIMONY							
ARSENIC						13.7	14.7
BARIUM							
BERYLLIUM							
CADMIUM							
CALCIUM							
CHROMIUM							
COBALT							
COPPER							
IRON							
LEAD							
MAGNESIUM							
MANGANESE							
MERCURY							
NICKEL							
POTASSIUM							
SELENIUM							

LOCATION	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-11S	CEF-015-12S	CEF-015-13S	CEF-015-13S
NSAMPLE	CEF-015-GW-11S-02-D	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-11S-03-D	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE	CEF-015-GW-DUP-02	CEF-015-GW-11S-03	CEF-015-GW-11S-03-AVG	CEF-015-GW-DUP-03	CEF-015-GW-12S-02	CEF-015-GW-13S-02	CEF-015-GW-13S-04
SAMPLE DATE	07/16/03	02/17/05	02/17/05	02/17/05	07/15/03	07/15/03	03/15/06
SILVER							
SODIUM							
THALLIUM							
VANADIUM							
ZINC							
Filtered Inorganics (ug/L)							
ALUMINUM							
ANTIMONY							
ARSENIC							3.5
BARIUM							
BERYLLIUM							
CADMIUM							
CALCIUM							
CHROMIUM							
COBALT							
COPPER							
IRON							
LEAD							
MAGNESIUM							
MANGANESE							
MERCURY							
NICKEL							
POTASSIUM							
SELENIUM							
SILVER							
SODIUM							
THALLIUM							
VANADIUM							
ZINC							
Miscellaneous Parameters							
CYANIDE (UG/L)							
PERCHLORATE (UG/L)		0.50 U	0.50 U	0.50 U			
TOTAL ORGANIC CARBON (MG/L)							
Field Parameters							
DISSOLVED OXYGEN - METER (MG/L)					0.35	0.14	
OXIDATION REDUCTION POTENTIAL (MV)					61.9	55.2	
PH					5.49	5.11	
SPECIFIC CONDUCTANCE (MS/CM)					0.08	0.061	
TEMPERATURE (C)					21.64	23	
TURBIDITY (NTU)					0.00	1000 >	

LOCATION	CEF-015-13S	CEF-015-14S	CEF-015-15S	CF15S11R	CEF-015-16S
NSAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE DATE	03/21/06	07/16/03	11/22/05	07/20/95	02/28/07
Volatile Organics (ug/L)					
1,1,1-TRICHLOROETHANE					
1,1,2,2-TETRACHLOROETHANE					
1,1,2-TRICHLOROETHANE					
1,1-DICHLOROETHANE					
1,1-DICHLOROETHENE					
1,2-DIBROMOETHANE					
1,2-DICHLOROETHANE					
1,2-DICHLOROPROPANE					
2-BUTANONE					
2-CHLOROETHYL VINYL ETHER					
2-HEXANONE					
4-METHYL-2-PENTANONE					
ACETONE					
BENZENE					
BROMODICHLOROMETHANE					
BROMOFORM					
BROMOMETHANE					
CARBON DISULFIDE					
CARBON TETRACHLORIDE					
CHLOROBENZENE					
CHLORODIBROMOMETHANE					
CHLOROETHANE					
CHLOROFORM					
CHLOROMETHANE					
CIS-1,3-DICHLOROPROPENE					
DICHLORODIFLUOROMETHANE					
ETHYLBENZENE					
METHYL TERT-BUTYL ETHER					
METHYLENE CHLORIDE					
STYRENE					
TETRACHLOROETHENE					
TOLUENE					
TOTAL 1,2-DICHLOROETHENE					
TOTAL XYLENES					
TRANS-1,2-DICHLOROETHENE					
TRANS-1,3-DICHLOROPROPENE					
TRICHLOROETHENE					
TRICHLOROFLUOROMETHANE					
VINYL CHLORIDE					
Semivolatile Organics (ug/L)					
1,2,4-TRICHLOROBENZENE					
1,2-DICHLOROBENZENE					
1,3,5-TRINITROBENZENE					
1,3-DICHLOROBENZENE					
1,3-DINITROBENZENE					

LOCATION	CEF-015-13S	CEF-015-14S	CEF-015-15S	CF15S11R	CEF-015-16S
NSAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE DATE	03/21/06	07/16/03	11/22/05	07/20/95	02/28/07
1,4-DICHLOROBENZENE					
1-METHYLNAPHTHALENE					
2,2'-OXYBIS(1-CHLOROPROPANE)					
2,4,5-TRICHLOROPHENOL					
2,4,6-TRICHLOROPHENOL					
2,4-DICHLOROPHENOL					
2,4-DIMETHYLPHENOL					
2,4-DINITROPHENOL					
2,4-DINITROTOLUENE					
2,6-DINITROTOLUENE					
2-CHLORONAPHTHALENE					
2-CHLOROPHENOL					
2-METHYLNAPHTHALENE					
2-METHYLPHENOL					
2-NITROANILINE					
2-NITROPHENOL					
3,3'-DICHLOROBENZIDINE					
3-NITROANILINE					
4,6-DINITRO-2-METHYLPHENOL					
4-BROMOPHENYL PHENYL ETHER					
4-CHLORO-3-METHYLPHENOL					
4-CHLOROANILINE					
4-CHLOROPHENYL PHENYL ETHER					
4-METHYLPHENOL					
4-NITROANILINE					
4-NITROPHENOL					
ACENAPHTHENE					
ACENAPHTHYLENE					
ANTHRACENE					
BAP EQUIVALENT					
BENZO(A)ANTHRACENE					
BENZO(A)PYRENE					
BENZO(B)FLUORANTHENE					
BENZO(G,H,I)PERYLENE					
BENZO(K)FLUORANTHENE					
BIS(2-CHLOROETHOXY)METHANE					
BIS(2-CHLOROETHYL)ETHER					
BIS(2-ETHYLHEXYL)PHTHALATE					
BUTYL BENZYL PHTHALATE					
CARBAZOLE					
CHRYSENE					
DI-N-BUTYL PHTHALATE					
DI-N-OCTYL PHTHALATE					
DIBENZO(A,H)ANTHRACENE					
DIBENZOFURAN					
DIETHYL PHTHALATE					

LOCATION	CEF-015-13S	CEF-015-14S	CEF-015-15S	CF15S11R	CEF-015-16S
NSAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE DATE	03/21/06	07/16/03	11/22/05	07/20/95	02/28/07
DIMETHYL PHTHALATE					
FLUORANTHENE					
FLUORENE					
HEXACHLOROBENZENE					
HEXACHLOROBUTADIENE					
HEXACHLOROCYCLOPENTADIENE					
HEXACHLOROETHANE					
INDENO(1,2,3-CD)PYRENE					
ISOPHORONE					
N-NITROSO-DI-N-PROPYLAMINE					
N-NITROSODIPHENYLAMINE					
NAPHTHALENE					
NITROBENZENE					
PENTACHLOROPHENOL					
PHENANTHRENE					
PHENOL					
PYRENE					
TOTAL PAHS					
Pesticides/PCBs (ug/L)					
4,4'-DDD					
4,4'-DDE					
4,4'-DDT					
ALDRIN					
ALPHA-BHC					
ALPHA-CHLORDANE					
AROCLOR-1016					
AROCLOR-1221					
AROCLOR-1232					
AROCLOR-1242					
AROCLOR-1248					
AROCLOR-1254					
AROCLOR-1260					
BETA-BHC					
DELTA-BHC					
DIELDRIN					
ENDOSULFAN I					
ENDOSULFAN II					
ENDOSULFAN SULFATE					
ENDRIN					
ENDRIN ALDEHYDE					
ENDRIN KETONE					
GAMMA-BHC (LINDANE)					
GAMMA-CHLORDANE					
HEPTACHLOR					
HEPTACHLOR EPOXIDE					
METHOXYCHLOR					

LOCATION	CEF-015-13S	CEF-015-14S	CEF-015-15S	CF15S11R	CEF-015-16S
NSAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE DATE	03/21/06	07/16/03	11/22/05	07/20/95	02/28/07
TOXAPHENE					
Explosives (ug/L)					
1,3,5-TRINITROBENZENE		0.054 U			
1,3-DINITROBENZENE		0.054 U			
2,4,6-TRINITROTOLUENE		0.054 U			
2,4-DINITROTOLUENE		0.054 U			
2,6-DINITROTOLUENE		0.054 U			
2-AMINO-4,6-DINITROTOLUENE		0.054 U			
2-NITROTOLUENE		0.054 U			
3-NITROTOLUENE		0.054 U			
4-AMINO-2,6-DINITROTOLUENE		0.054 U			
4-NITROTOLUENE		0.081 U			
HMX		0.081 U			
NITROBENZENE		0.054 U			
RDX		0.081 U			
TETRYL		0.081 U			
Petroleum Hydrocarbons (mg/L)					
TOTAL PETROLEUM HYDROCARBONS				1 UJ	
Radiochemistry (pci/L)					
AMERICIUM-241					
PLUTONIUM-238					
PLUTONIUM-241					
TOTAL PLUTONIUM					
TOTAL URANIUM-233+234					
TRITIUM					
URANIUM					
URANIUM-235					
Total Inorganics (ug/L)					
ALUMINUM					
ANTIMONY					
ARSENIC	22.4		16.5 U		2.8 U
BARIUM					
BERYLLIUM					
CADMIUM					
CALCIUM					
CHROMIUM					
COBALT					
COPPER					
IRON					
LEAD					
MAGNESIUM					
MANGANESE					
MERCURY					
NICKEL					
POTASSIUM					
SELENIUM					

LOCATION	CEF-015-13S	CEF-015-14S	CEF-015-15S	CF15S11R	CEF-015-16S
NSAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE	CEF-015-13S(R)-05	CEF-015-GW-14S-02	CEF-015-GW-15S-03	CF15S11R	CEF-015-GW-16S
SAMPLE DATE	03/21/06	07/16/03	11/22/05	07/20/95	02/28/07
SILVER					
SODIUM					
THALLIUM					
VANADIUM					
ZINC					
Filtered Inorganics (ug/L)					
ALUMINUM					
ANTIMONY					
ARSENIC	2.9 U		8 U		2.8 U
BARIUM					
BERYLLIUM					
CADMIUM					
CALCIUM					
CHROMIUM					
COBALT					
COPPER					
IRON					
LEAD					
MAGNESIUM					
MANGANESE					
MERCURY					
NICKEL					
POTASSIUM					
SELENIUM					
SILVER					
SODIUM					
THALLIUM					
VANADIUM					
ZINC					
Miscellaneous Parameters					
CYANIDE (UG/L)					
PERCHLORATE (UG/L)					
TOTAL ORGANIC CARBON (MG/L)					
Field Parameters					
DISSOLVED OXYGEN - METER (MG/L)		0.54			
OXIDATION REDUCTION POTENTIAL (MV)		178			
PH		5.08			
SPECIFIC CONDUCTANCE (MS/CM)		0.082			
TEMPERATURE (C)		22.48			
TURBIDITY (NTU)		0.00			

APPENDIX G

COST ESTIMATE

G.1 SOIL ASSUMPTIONS AND CALCULATIONS

G.2 SOIL ALTERNATIVE 2

G.3 SOIL ALTERNATIVE 3A

G.4 SOIL ALTERNATIVE 3B

G.5 SOIL ALTERNATIVE 4A

G.6 SOIL ALTERNATIVE 4B

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SD-100 CEF-015-SD-100 4/13/1999	CEF-015-SD-101 CEF-015-SD-101 4/13/1999	CEF-015-SD-102 CEF-015-SD-102 4/13/1999	CEF-015-SD-103 CEF-015-SD-103 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-AVG 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-D 4/14/1999	CEF-015-SD-104 CEF-015-SD-104 4/14/1999	CEF-015-SD-105 CEF-015-SD-105 4/14/1999	CEF-015-SW/SD1 CF15SD1 [07/05/95] 7/5/1995
Volatile Organics (ug/kg)									
1,1,1-TRICHLOROETHANE									7 U
1,1,2,2-TETRACHLOROETHANE									7 U
1,1,2-TRICHLOROETHANE									7 U
1,1-DICHLOROETHANE									7 U
1,1-DICHLOROETHENE									7 U
1,2-DICHLOROETHANE									7 U
1,2-DICHLOROPROPANE									7 U
2-BUTANONE									18
2-HEXANONE									14 U
4-METHYL-2-PENTANONE									14 U
ACETONE									14 U
BENZENE									7 U
BROMODICHLOROMETHANE									7 U
BROMOFORM									7 U
BROMOMETHANE									14 U
CARBON DISULFIDE									7 U
CARBON TETRACHLORIDE									7 U
CHLOROBENZENE									7 U
CHLORODIBROMOMETHANE									7 U
CHLOROETHANE									14 U
CHLOROFORM									7 U
CHLOROMETHANE									14 U
CIS-1,3-DICHLOROPROPENE									7 U
ETHYLBENZENE									7 U
METHYLENE CHLORIDE									7 U
STYRENE									7 U
TETRACHLOROETHENE									7 U
TOLUENE									7 U
TOTAL 1,2-DICHLOROETHENE									7 U
TOTAL XYLENES									7 U
TRANS-1,3-DICHLOROPROPENE									7 U
TRICHLOROETHENE									7 U
VINYL CHLORIDE									14 U
Semivolatile Organics (ug/kg)									
1,2,4-TRICHLOROBENZENE									460 U
1,2-DICHLOROBENZENE									460 U
1,3,5-TRINITROBENZENE									250 U
1,3-DICHLOROBENZENE									460 U
1,3-DINITROBENZENE									250 U

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SD-100 CEF-015-SD-100 4/13/1999	CEF-015-SD-101 CEF-015-SD-101 4/13/1999	CEF-015-SD-102 CEF-015-SD-102 4/13/1999	CEF-015-SD-103 CEF-015-SD-103 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-AVG 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-D 4/14/1999	CEF-015-SD-104 CEF-015-SD-104 4/14/1999	CEF-015-SD-105 CEF-015-SD-105 4/14/1999	CEF-015-SW/SD1 CF15SD1 [07/05/95] 7/5/1995
1,4-DICHLOROBENZENE									460 U
1-METHYLNAPHTHALENE	47 U	43 U	45 U	45 U	44.5 U	44 U	36 U	40 U	
2,2'-OXYBIS(1-CHLOROPROPANE)									460 U
2,4,5-TRICHLOROPHENOL									1100 U
2,4,6-TRICHLOROPHENOL									460 U
2,4-DICHLOROPHENOL									460 U
2,4-DIMETHYLPHENOL									460 U
2,4-DINITROPHENOL									1100 U
2,4-DINITROTOLUENE									460 U
2,6-DINITROTOLUENE									460 U
2-CHLORONAPHTHALENE									460 U
2-CHLOROPHENOL									460 U
2-METHYLNAPHTHALENE	47 U	43 U	45 U	31700 J	17890 J	4080 J	2710	189	460 U
2-METHYLPHENOL									460 U
2-NITROANILINE									1100 U
2-NITROPHENOL									460 U
3,3'-DICHLOROBENZIDINE									460 U
3-NITROANILINE									1100 U
4,6-DINITRO-2-METHYLPHENOL									1100 U
4-BROMOPHENYL PHENYL ETHER									460 U
4-CHLORO-3-METHYLPHENOL									460 U
4-CHLOROANILINE									460 U
4-CHLOROPHENYL PHENYL ETHER									460 U
4-METHYLPHENOL									460 U
4-NITROANILINE									1100 U
4-NITROPHENOL									1100 U
ACENAPHTHENE	47 U	69.2	45 U	46900 J	26125 J	5350 J	3600	225	460 U
ACENAPHTHYLENE	47 U	99.6	45 U	45 UJ	170.75 J	319 J	36 U	40 U	460 U
ANTHRACENE	47 U	43 U	45 U	3480 J	2345 J	1210 J	1100	40 U	460 U
BAP EQUIVALENT(2)	1355.777	106.52	30.1442	52112.0234	30722.7467	9333.47	5556.485	435.079	421.93
BENZO(A)ANTHRACENE	7.1 U	76.3	12.6	6.7 UJ	2861.675 J	5720 J	3510	231	230 J
BENZO(A)PYRENE	1350	74.3	23.1	48200 J	28080 J	7960 J	4790	352	290 J
BENZO(B)FLUORANTHENE	7.1 U	105	20.1	38000 J	22840 J	7680 J	3880	286	450 J
BENZO(G,H,I)PERYLENE	7.1 U	108	6.7 U	6.7 UJ	1711.675 J	3420 J	1030	241	140 J
BENZO(K)FLUORANTHENE	71.4	58.5	6.7 U	10800 J	6535 J	2270 J	2080	150	160 J
BIS(2-CHLOROETHOXY)METHANE									460 U
BIS(2-CHLOROETHYL)ETHER									460 U
BIS(2-ETHYLHEXYL)PHTHALATE									460 U
BUTYL BENZYL PHTHALATE									460 U
CARBAZOLE									460 U

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SD-100 CEF-015-SD-100 4/13/1999	CEF-015-SD-101 CEF-015-SD-101 4/13/1999	CEF-015-SD-102 CEF-015-SD-102 4/13/1999	CEF-015-SD-103 CEF-015-SD-103 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-AVG 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-D 4/14/1999	CEF-015-SD-104 CEF-015-SD-104 4/14/1999	CEF-015-SD-105 CEF-015-SD-105 4/14/1999	CEF-015-SW/SD1 CF15SD1 [07/05/95] 7/5/1995
CHRYSENE	448	255	55.7	6.7 UJ	3571.675 J	7140 J	3660	329	330 J
DI-N-BUTYL PHTHALATE									380 J
DI-N-OCTYL PHTHALATE									460 U
DIBENZO(A,H)ANTHRACENE	7.1 U	6.5 U	6.7 U	6.7 U	6.65 U	6.6 U	5.5 U	6.1 U	48 J
DIBENZOFURAN									460 U
DIETHYL PHTHALATE									460 U
DIMETHYL PHTHALATE									460 U
FLUORANTHENE	7.1 U	390	106	73400 J	42550 J	11700 J	9190	545	400 J
FLUORENE	47 U	30.3	45 U	21900 J	12155 J	2410 J	1660	82.2	460 U
HEXACHLOROBENZENE									460 U
HEXACHLOROBUTADIENE									460 U
HEXACHLOROCYCLOPENTADIENE									460 U
HEXACHLOROETHANE									460 U
INDENO(1,2,3-CD)PYRENE	7.1 U	100	6.7 U	6.7 U	6.65 U	6.6 U	5.5 U	265	140 J
ISOPHORONE									460 U
N-NITROSO-DI-N-PROPYLAMINE									460 U
N-NITROSODIPHENYLAMINE									460 U
NAPHTHALENE	47 U	43 U	45 U	45 U	44.5 U	44 U	36 U	40 U	460 U
NITROBENZENE									460 U
PENTACHLOROPHENOL									1100 U
PHENANTHRENE	47 U	114	45 U	23300 J	13675 J	4050 J	4000	40 U	100 J
PHENOL									460 U
PYRENE	7.1 U	171	26.3	65200 J	37365 J	9530 J	6820	399	310 J
TOTAL PAHS	2011.75	1667.15	369.7	309341.75	187859.675	66377.6	43701.5	3106.05	3518
Pesticides/PCBs (ug/kg)									
4,4'-DDD									4.6 U
4,4'-DDE									4.6 U
4,4'-DDT									4.6 U
ALDRIN									0.56 R
ALPHA-BHC									2.3 U
ALPHA-CHLORDANE									2.3 U
AROCLOR-1016									46 U
AROCLOR-1221									92 U
AROCLOR-1232									46 U
AROCLOR-1242									46 U
AROCLOR-1248									46 U
AROCLOR-1254									46 U
AROCLOR-1260									46 U
BETA-BHC									2.3 U
DELTA-BHC									2.3 U

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SD-100 CEF-015-SD-100 4/13/1999	CEF-015-SD-101 CEF-015-SD-101 4/13/1999	CEF-015-SD-102 CEF-015-SD-102 4/13/1999	CEF-015-SD-103 CEF-015-SD-103 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-AVG 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-D 4/14/1999	CEF-015-SD-104 CEF-015-SD-104 4/14/1999	CEF-015-SD-105 CEF-015-SD-105 4/14/1999	CEF-015-SW/SD1 CF15SD1 [07/05/95] 7/5/1995
DIELDRIN									4.6 U
ENDOSULFAN I									2.3 U
ENDOSULFAN II									4.6 U
ENDOSULFAN SULFATE									4.6 U
ENDRIN									4.6 U
ENDRIN ALDEHYDE									4.6 U
ENDRIN KETONE									4.6 U
GAMMA-BHC (LINDANE)									2.3 U
GAMMA-CHLORDANE									2.3 U
HEPTACHLOR									2.3 UJ
HEPTACHLOR EPOXIDE									2.3 U
METHOXYCHLOR									23 U
TOXAPHENE									230 U
Petroleum Hydrocarbons (mg/kg)									
TOTAL PETROLEUM HYDROCARBONS									15 J
Explosives (ug/kg)									
2,4,6-TRINITROTOLUENE									250 U
2-AMINO-4,6-DINITROTOLUENE									250 U
2-NITROTOLUENE									500 U
3-NITROTOLUENE									500 U
4-AMINO-2,6-DINITROTOLUENE									250 U
4-NITROTOLUENE									500 U
HMX									500 U
RDX									500 U
TETRYL									500 U
Inorganics (mg/kg)									
ALUMINUM									2120
ANTIMONY									5.5 U
ARSENIC									1.1 UJ
BARIUM									3.1
BERYLLIUM									0.28 U
CADMIUM									0.28 U
CALCIUM									62.8 J
CHROMIUM									2.5 U
COBALT									1.7 U
COPPER									0.83 U
IRON									207
LEAD	574	104	105	453	398	343	147	163	29
MAGNESIUM									58.8
MANGANESE									1.5 U

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SD-100 CEF-015-SD-100 4/13/1999	CEF-015-SD-101 CEF-015-SD-101 4/13/1999	CEF-015-SD-102 CEF-015-SD-102 4/13/1999	CEF-015-SD-103 CEF-015-SD-103 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-AVG 4/14/1999	CEF-015-SD-103 CEF-015-SD-103-D 4/14/1999	CEF-015-SD-104 CEF-015-SD-104 4/14/1999	CEF-015-SD-105 CEF-015-SD-105 4/14/1999	CEF-015-SW/SD1 CF15SD1 [07/05/95] 7/5/1995
MERCURY									0.14 UJ
NICKEL									3.3 U
POTASSIUM									39.9 U
SELENIUM									1.1 U
SILVER									1.1 U
SODIUM									221 J
THALLIUM									1.4 U
VANADIUM									2.4
ZINC									1.1 UJ
Miscellaneous Parameters (mg/kg)									
CYANIDE									0.23 U
TOTAL ORGANIC CARBON									8000

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD2 CF15SD2 [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SD2 [07/05/95]-AVG 7/5/1995	CEF-015-SW/SD2 CF15SD2 [07/05/95]-D 7/5/1995	CEF-015-SW/SD3 CF15SD3 [07/06/95] 7/6/1995	CEF-015-SW/SD4 CF15SD4 [05/07/97] 5/7/1997	CEF-015-SW/SD5 CF15SD5 [05/07/97] 5/7/1997	CEF-015-SW/SD6 CF15SD6 [05/07/97] 5/7/1997	CEF-015-SW/SD7 CF15SD7 [05/07/97] 5/7/1997
Volatile Organics (ug/kg)								
1,1,1-TRICHLOROETHANE	7 U	7 U	7 U	5 U				
1,1,2,2-TETRACHLOROETHANE	7 U	7 U	7 U	5 U				
1,1,2-TRICHLOROETHANE	7 U	7 U	7 U	5 U				
1,1-DICHLOROETHANE	7 U	7 U	7 U	5 U				
1,1-DICHLOROETHENE	7 U	7 U	7 U	5 U				
1,2-DICHLOROETHANE	7 U	7 U	7 U	5 U				
1,2-DICHLOROPROPANE	7 U	7 U	7 U	5 U				
2-BUTANONE	14 U	14 U	14 U	9 J				
2-HEXANONE	14 U	14 U	14 U	11 U				
4-METHYL-2-PENTANONE	14 U	14 U	14 U	11 U				
ACETONE	14 U	14 U	14 U	13 U				
BENZENE	7 U	7 U	7 U	5 U				
BROMODICHLOROMETHANE	7 U	7 U	7 U	5 U				
BROMOFORM	7 U	7 U	7 U	5 U				
BROMOMETHANE	14 U	14 U	14 U	11 U				
CARBON DISULFIDE	7 U	7 U	7 U	5 U				
CARBON TETRACHLORIDE	7 U	7 U	7 U	5 U				
CHLOROBENZENE	7 U	7 U	7 U	5 U				
CHLORODIBROMOMETHANE	7 U	7 U	7 U	5 U				
CHLOROETHANE	14 U	14 U	14 U	11 U				
CHLOROFORM	7 U	7 U	7 U	5 U				
CHLOROMETHANE	14 U	14 U	14 U	11 U				
CIS-1,3-DICHLOROPROPENE	7 U	7 U	7 U	5 U				
ETHYLBENZENE	7 U	7 U	7 U	5 U				
METHYLENE CHLORIDE	7 U	7 U	7 U	5 U				
STYRENE	7 U	7 U	7 U	5 U				
TETRACHLOROETHENE	7 U	7 U	7 U	5 U				
TOLUENE	7 U	7 U	7 U	5 U				
TOTAL 1,2-DICHLOROETHENE	7 U	7 U	7 U	5 U				
TOTAL XYLENES	7 U	7 U	7 U	5 U				
TRANS-1,3-DICHLOROPROPENE	7 U	7 U	7 U	5 U				
TRICHLOROETHENE	7 U	7 U	7 U	5 U				
VINYL CHLORIDE	14 U	14 U	14 U	11 U				
Semivolatile Organics (ug/kg)								
1,2,4-TRICHLOROBENZENE	450 U	460 U	470 U	350 U		440 U		
1,2-DICHLOROBENZENE	450 U	460 U	470 U	350 U				
1,3,5-TRINITROBENZENE	250 U	250 U	250 U	2500 U				
1,3-DICHLOROBENZENE	450 U	460 U	470 U	350 U				
1,3-DINITROBENZENE	250 U	250 U	250 U	2500 U				

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD2 CF15SD2 [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SD2 [07/05/95]-AVG 7/5/1995	CEF-015-SW/SD2 CF15SD2 [07/05/95]-D 7/5/1995	CEF-015-SW/SD3 CF15SD3 [07/06/95] 7/6/1995	CEF-015-SW/SD4 CF15SD4 [05/07/97] 5/7/1997	CEF-015-SW/SD5 CF15SD5 [05/07/97] 5/7/1997	CEF-015-SW/SD6 CF15SD6 [05/07/97] 5/7/1997	CEF-015-SW/SD7 CF15SD7 [05/07/97] 5/7/1997
1,4-DICHLOROBENZENE	450 U	460 U	470 U	350 U		440 U		
1-METHYLNAPHTHALENE								
2,2'-OXYBIS(1-CHLOROPROPANE)	450 U	460 U	470 U	350 U				
2,4,5-TRICHLOROPHENOL	1100 U	1100 U	1100 U	850 U				
2,4,6-TRICHLOROPHENOL	450 U	460 U	470 U	350 U				
2,4-DICHLOROPHENOL	450 U	460 U	470 U	350 U				
2,4-DIMETHYLPHENOL	450 U	460 U	470 U	350 U				
2,4-DINITROPHENOL	1100 U	1100 U	1100 U	850 U				
2,4-DINITROTOLUENE	450 U	460 U	470 U	350 U		440 U		
2,6-DINITROTOLUENE	450 U	460 U	470 U	350 U				
2-CHLORONAPHTHALENE	450 U	460 U	470 U	350 U				
2-CHLOROPHENOL	450 U	460 U	470 U	350 U		440 U		
2-METHYLNAPHTHALENE	450 U	460 U	470 U	350 U	450 U	440 U	660 U	2300 U
2-METHYLPHENOL	450 U	460 U	470 U	350 U				
2-NITROANILINE	1100 U	1100 U	1100 U	850 U				
2-NITROPHENOL	450 U	460 U	470 U	350 U				
3,3'-DICHLOROBENZIDINE	450 U	460 U	470 U	350 U				
3-NITROANILINE	1100 U	1100 U	1100 U	850 U				
4,6-DINITRO-2-METHYLPHENOL	1100 U	1100 U	1100 U	850 U				
4-BROMOPHENYL PHENYL ETHER	450 U	460 U	470 U	350 U				
4-CHLORO-3-METHYLPHENOL	450 U	460 U	470 U	350 U		440 U		
4-CHLOROANILINE	450 U	460 U	470 U	350 U				
4-CHLOROPHENYL PHENYL ETHER	450 U	460 U	470 U	350 U				
4-METHYLPHENOL	450 U	460 U	470 U	350 U				
4-NITROANILINE	1100 U	1100 U	1100 U	850 U				
4-NITROPHENOL	1100 U	1100 U	1100 U	850 U		1100 U		
ACENAPHTHENE	450 U	460 U	470 U	350 U	450 U	440 U	660 U	2300 U
ACENAPHTHYLENE	450 U	460 U	470 U	350 U	450 U	440 U	660 U	2300 U
ANTHRACENE	450 U	460 U	470 U	43 J	450 U	440 U	660 U	550 J
BAP EQUIVALENT(2)	289.83	324.355	358.88	1075.36				
BENZO(A)ANTHRACENE	180 J	200 J	220 J	560	51 J	330 J	230 J	6100
BENZO(A)PYRENE	200 J	225 J	250 J	760	68 J	360 J	280 J	8000
BENZO(B)FLUORANTHENE	270 J	300 J	330 J	1100	80 J	460	420 J	10000
BENZO(G,H,I)PERYLENE	100 J	115 J	130 J	210 J	450 U	100 J	130 J	3500
BENZO(K)FLUORANTHENE	120 J	140 J	160 J	460	450 U	190 J	130 J	3700
BIS(2-CHLOROETHOXY)METHANE	450 U	460 U	470 U	350 U				
BIS(2-CHLOROETHYL)ETHER	450 U	460 U	470 U	350 U				
BIS(2-ETHYLHEXYL)PHTHALATE	450 U	460 U	470 U	350 U				
BUTYL BENZYL PHTHALATE	450 U	460 U	470 U	350 U				
CARBAZOLE	450 U	460 U	470 U	58 J				

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD2 CF15SD2 [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SD2 [07/05/95]-AVG 7/5/1995	CEF-015-SW/SD2 CF15SD2 [07/05/95]-D 7/5/1995	CEF-015-SW/SD3 CF15SD3 [07/06/95] 7/6/1995	CEF-015-SW/SD4 CF15SD4 [05/07/97] 5/7/1997	CEF-015-SW/SD5 CF15SD5 [05/07/97] 5/7/1997	CEF-015-SW/SD6 CF15SD6 [05/07/97] 5/7/1997	CEF-015-SW/SD7 CF15SD7 [05/07/97] 5/7/1997
CHRYSENE	230 J	255 J	280 J	760	64 J	430 J	290 J	7300
DI-N-BUTYL PHTHALATE	2700	3100	3500	2100				
DI-N-OCTYL PHTHALATE	450 U	460 U	470 U	350 U				
DIBENZO(A,H)ANTHRACENE	34 J	37.5 J	41 J	110 J	450 U	440 U	660 U	1100 J
DIBENZOFURAN	450 U	460 U	470 U	350 U				
DIETHYL PHTHALATE	450 U	460 U	470 U	350 U				
DIMETHYL PHTHALATE	450 U	460 U	470 U	350 U				
FLUORANTHENE	260 J	305 J	350 J	980	79 J	590	330 J	10000
FLUORENE	450 U	460 U	470 U	350 U	450 U	440 U	660 U	2300 U
HEXACHLOROBENZENE	450 U	460 U	470 U	350 U				
HEXACHLOROBUTADIENE	450 U	460 U	470 U	350 U				
HEXACHLOROCYCLOPENTADIENE	450 U	460 U	470 U	350 U				
HEXACHLOROETHANE	450 U	460 U	470 U	350 U				
INDENO(1,2,3-CD)PYRENE	94 J	102 J	110 J	340 J	450 U	140 J	160 J	4300
ISOPHORONE	450 U	460 U	470 U	350 U				
N-NITROSO-DI-N-PROPYLAMINE	450 U	460 U	470 U	350 U		440 U		
N-NITROSODIPHENYLAMINE	450 U	460 U	470 U	350 U				
NAPHTHALENE	450 U	460 U	470 U	350 U	450 U	440 U	660 U	2300 U
NITROBENZENE	450 U	460 U	470 U	350 U				
PENTACHLOROPHENOL	1100 U	1100 U	1100 U	850 U		1100 U		
PHENANTHRENE	73 J	85.5 J	98 J	220 J	450 U	170 J	96 J	3100
PHENOL	450 U	460 U	470 U	350 U		440 U		
PYRENE	210 J	230 J	250 J	600	84 J	510	330 J	9100
TOTAL PAHS	2671	2915	3159	6668				
Pesticides/PCBs (ug/kg)								
4,4'-DDD	4.5 J	3.55 J	2.6 J	11 J				
4,4'-DDE	3.7 J	3.45 J	3.2 J	8.3 J				
4,4'-DDT	4 J	4 J	4.8 U	8.1 J				
ALDRIN	1.7 R	1.5 R	1.5 R	0.84 R				
ALPHA-BHC	2.3 U	2.35 U	2.4 U	1.8 U				
ALPHA-CHLORDANE	2.3 U	2.35 U	2.4 U	1.8 U				
AROCLOR-1016	46 U	47 U	48 U	35 U				
AROCLOR-1221	91 U	93 U	95 U	71 U				
AROCLOR-1232	46 U	47 U	48 U	35 U				
AROCLOR-1242	46 U	47 U	48 U	35 U				
AROCLOR-1248	46 U	47 U	48 U	35 U				
AROCLOR-1254	46 U	47 U	48 U	35 U				
AROCLOR-1260	46 U	47 U	48 U	35 U				
BETA-BHC	2.3 U	2.35 U	2.4 U	1.8 U				
DELTA-BHC	2.3 U	2.35 U	2.4 U	1.8 U				

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SW/SD2	CEF-015-SW/SD2	CEF-015-SW/SD2	CEF-015-SW/SD3	CEF-015-SW/SD4	CEF-015-SW/SD5	CEF-015-SW/SD6	CEF-015-SW/SD7
SAMPLE NUMBER	CF15SD2 [07/05/95]	CF15SD2 [07/05/95]-AVG	CF15SD2 [07/05/95]-D	CF15SD3 [07/06/95]	CF15SD4 [05/07/97]	CF15SD5 [05/07/97]	CF15SD6 [05/07/97]	CF15SD7 [05/07/97]
SAMPLE DATE	7/5/1995	7/5/1995	7/5/1995	7/6/1995	5/7/1997	5/7/1997	5/7/1997	5/7/1997
DIELDRIN	0.46 J	0.46 J	4.8 U	3.5 U				
ENDOSULFAN I	2.3 U	2.35 U	2.4 U	1.8 U				
ENDOSULFAN II	4.6 U	4.7 U	4.8 U	3.5 U				
ENDOSULFAN SULFATE	4.6 U	4.7 U	4.8 U	3.5 U				
ENDRIN	4.6 U	4.7 U	4.8 U	3.5 U				
ENDRIN ALDEHYDE	4.6 U	4.7 U	4.8 U	3.5 U				
ENDRIN KETONE	4.6 U	4.7 U	4.8 U	3.5 U				
GAMMA-BHC (LINDANE)	2.3 U	2.35 U	2.4 U	1.8 U				
GAMMA-CHLORDANE	2.3 U	2.35 U	2.4 U	1.8 U				
HEPTACHLOR	2.3 UJ	2.35 UJ	2.4 UJ	1.8 UJ				
HEPTACHLOR EPOXIDE	2.3 U	2.35 U	2.4 U	1.8 U				
METHOXYCHLOR	4.6 U	14.3 U	24 U	18 U				
TOXAPHENE	230 U	235 U	240 U	180 U				
Petroleum Hydrocarbons (mg/kg)								
TOTAL PETROLEUM HYDROCARBONS	68 J	114 J	160 J	72 J	56	13 U	16 U	18 U
Explosives (ug/kg)								
2,4,6-TRINITROTOLUENE	250 U	250 U	250 U	2500 U				
2-AMINO-4,6-DINITROTOLUENE	250 U	250 U	250 U	2500 U				
2-NITROTOLUENE	500 U	500 U	500 U	5000 U				
3-NITROTOLUENE	500 U	500 U	500 U	5000 U				
4-AMINO-2,6-DINITROTOLUENE	250 U	250 U	250 U	2500 U				
4-NITROTOLUENE	500 U	500 U	500 U	37500				
HMX	500 U	500 U	500 U	5000 U				
RDX	500 U	500 U	500 U	5000 U				
TETRYL	500 U	500 U	500 U	5000 U				
Inorganics (mg/kg)								
ALUMINUM	2850	2630	2410	543				
ANTIMONY	5.5 U	5.65 U	5.8 U	4.3 U				
ARSENIC	1.1 UJ	1.15 UJ	1.2 UJ	0.85 UJ				
BARIUM	4.1	3.85	3.6	2.3				
BERYLLIUM	0.28 U	0.285 U	0.29 U	0.21 U				
CADMIUM	0.28 U	0.285 U	0.29 U	0.21 U				
CALCIUM	89.6 J	90.5 J	91.4 J	76.3 J				
CHROMIUM	3.1	2.2	2.6 U	1.9 U				
COBALT	1.7 U	1.7 U	1.7 U	1.3 U				
COPPER	0.83 U	0.85 U	0.87 U	0.64 U				
IRON	87.8	88	88.2	101				
LEAD	37.9	46.25	54.6	189	261 J	219 J	167 J	840 J
MAGNESIUM	33.3 U	29.5	29.5	25.4 U				
MANGANESE	0.73 U	0.68 U	0.63 U	0.66 U				

APPENDIX C-3

SEDIMENT ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD2 CF15SD2 [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SD2 [07/05/95]-AVG 7/5/1995	CEF-015-SW/SD2 CF15SD2 [07/05/95]-D 7/5/1995	CEF-015-SW/SD3 CF15SD3 [07/06/95] 7/6/1995	CEF-015-SW/SD4 CF15SD4 [05/07/97] 5/7/1997	CEF-015-SW/SD5 CF15SD5 [05/07/97] 5/7/1997	CEF-015-SW/SD6 CF15SD6 [05/07/97] 5/7/1997	CEF-015-SW/SD7 CF15SD7 [05/07/97] 5/7/1997
MERCURY	0.14 UJ	0.145 UJ	0.15 UJ	0.11 UJ				
NICKEL	3.3 U	3.4 U	3.5 U	2.6 U				
POTASSIUM	39.4 U	34.6 U	29.8 U	20.2 U				
SELENIUM	1.1 U	1.15 U	1.2 U	0.85 U				
SILVER	1.1 U	1.15 U	1.2 U	0.85 U				
SODIUM	184 J	177.5 J	171 J	145 J				
THALLIUM	1.4 U	1.4 U	1.4 U	1.1 U				
VANADIUM	2.7	2.35	2	0.72 J				
ZINC	1.1 UJ	1.15 UJ	1.2 UJ	0.85 UJ				
Miscellaneous Parameters (mg/kg)								
CYANIDE	0.19 U	0.225 U	0.26 U	0.11 U				
TOTAL ORGANIC CARBON	14000	13000	12000	5600				

E-4: SURFACE WATER

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD1 CF15SW1 [07/05/95] 7/5/1995	CEF-015-SW/SD1 CF15SW1F [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2 [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2D [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2DF [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2F [07/05/95] 7/5/1995	CEF-015-SW/SD3 CF15SW3 [07/06/95] 7/6/1995
Volatile Organics (ug/L)							
1,1,1-TRICHLOROETHANE	1 U		1 U	1 U			1 U
1,1,2,2-TETRACHLOROETHANE	1 U		1 U	1 U			1 U
1,1,2-TRICHLOROETHANE	1 U		1 U	1 U			1 U
1,1-DICHLOROETHANE	1 U		1 U	1 U			1 U
1,1-DICHLOROETHENE	1 U		1 U	1 U			1 U
1,2-DICHLOROETHANE	1 U		1 U	1 U			1 U
1,2-DICHLOROPROPANE	1 U		1 U	1 U			1 U
2-BUTANONE	2 U		2 U	2 U			2 U
2-HEXANONE	2 U		2 U	2 U			2 U
4-METHYL-2-PENTANONE	2 U		2 U	2 U			2 U
ACETONE	4 U		4 U	4 U			2 U
BENZENE	1 U		1 U	1 U			1 U
BROMODICHLOROMETHANE	1 U		1 U	1 U			1 U
BROMOFORM	1 U		1 U	1 U			1 U
BROMOMETHANE	2 U		2 U	2 U			2 U
CARBON DISULFIDE	1 U		1 U	1 U			1 U
CARBON TETRACHLORIDE	1 U		1 U	1 U			1 U
CHLOROBENZENE	1 U		1 U	1 U			1 U
CHLORODIBROMOMETHANE	1 U		1 U	1 U			1 U
CHLOROETHANE	2 U		2 U	2 U			2 U
CHLOROFORM	1 U		1 U	1 U			1 U
CHLOROMETHANE	2 U		2 U	2 U			2 U
CIS-1,3-DICHLOROPROPENE	1 U		1 U	1 U			1 U
ETHYLBENZENE	1 U		1 U	1 U			1 U
METHYLENE CHLORIDE	1 U		1 U	1 U			1 U
STYRENE	1 U		1 U	1 U			1 U
TETRACHLOROETHENE	1 U		1 U	1 U			1 U
TOLUENE	1 U		1 U	1 U			1 U
TOTAL 1,2-DICHLOROETHENE	1 U		1 U	1 U			1 U
TOTAL XYLENES	1 U		1 U	1 U			1 U
TRANS-1,3-DICHLOROPROPENE	1 U		1 U	1 U			1 U
TRICHLOROETHENE	1 U		1 U	1 U			1 U
VINYL CHLORIDE	2 U		2 U	2 U			2 U
Semivolatile Organics (ug/L)							
1,2,4-TRICHLOROBENZENE	10 U		10 U	10 U			10 U
1,2-DICHLOROBENZENE	10 U		10 U	10 U			10 U
1,3,5-TRINITROBENZENE	6.73		0.4 U	0.4 U			0.4 U
1,3-DICHLOROBENZENE	10 U		10 U	10 U			10 U
1,3-DINITROBENZENE	0.65 U		0.4 U	0.4 U			0.4 U

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD1 CF15SW1 [07/05/95] 7/5/1995	CEF-015-SW/SD1 CF15SW1F [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2 [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2D [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2DF [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2F [07/05/95] 7/5/1995	CEF-015-SW/SD3 CF15SW3 [07/06/95] 7/6/1995
1,4-DICHLOROBENZENE	10 U		10 U	10 U			10 U
2,2'-OXYBIS(1-CHLOROPROPANE)	10 U		10 U	10 U			10 U
2,4,5-TRICHLOROPHENOL	25 U		25 U	25 U			25 U
2,4,6-TRICHLOROPHENOL	10 U		10 U	10 U			10 U
2,4-DICHLOROPHENOL	10 U		10 U	10 U			10 U
2,4-DIMETHYLPHENOL	10 U		10 U	10 U			10 U
2,4-DINITROPHENOL	25 U		25 U	25 U			25 U
2,4-DINITROTOLUENE	10 U		10 U	10 U			10 U
2,6-DINITROTOLUENE	10 U		10 U	10 U			10 U
2-CHLORONAPHTHALENE	10 U		10 U	10 U			10 U
2-CHLOROPHENOL	10 U		10 U	10 U			10 U
2-METHYLNAPHTHALENE	10 U		10 U	10 U			10 U
2-METHYLPHENOL	10 U		10 U	10 U			10 U
2-NITROANILINE	25 U		25 U	25 U			25 U
2-NITROPHENOL	10 U		10 U	10 U			10 U
3,3'-DICHLOROBENZIDINE	10 U		10 U	10 U			10 U
3-NITROANILINE	25 U		25 U	25 U			25 U
4,6-DINITRO-2-METHYLPHENOL	25 U		25 U	25 U			25 U
4-BROMOPHENYL PHENYL ETHER	10 U		10 U	10 U			10 U
4-CHLORO-3-METHYLPHENOL	10 U		10 U	10 U			10 U
4-CHLOROANILINE	10 U		10 U	10 U			10 U
4-CHLOROPHENYL PHENYL ETHER	10 U		10 U	10 U			10 U
4-METHYLPHENOL	10 U		10 U	10 U			10 U
4-NITROANILINE	25 U		25 U	25 U			25 U
4-NITROPHENOL	25 U		25 U	25 U			25 U
ACENAPHTHENE	10 U		10 U	10 U			10 U
ACENAPHTHYLENE	10 U		10 U	10 U			10 U
ANTHRACENE	10 U		10 U	10 U			10 U
BENZO(A)ANTHRACENE	10 U		10 U	10 U			10 U
BENZO(A)PYRENE	10 U		10 U	10 U			10 U
BENZO(B)FLUORANTHENE	10 U		10 U	10 U			10 U
BENZO(G,H,I)PERYLENE	10 U		10 U	10 U			10 U
BENZO(K)FLUORANTHENE	10 U		10 U	10 U			10 U
BIS(2-CHLOROETHOXY)METHANE	10 U		10 U	10 U			10 U
BIS(2-CHLOROETHYL)ETHER	10 U		10 U	10 U			10 U
BIS(2-ETHYLHEXYL)PHTHALATE	10 U		10 U	10 U			10 U
BUTYL BENZYL PHTHALATE	10 U		10 U	10 U			10 U
CARBAZOLE	10 U		10 U	10 U			10 U
CHRYSENE	10 U		10 U	10 U			10 U
DI-N-BUTYL PHTHALATE	10 U		10 U	10 U			10 U

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD1 CF15SW1 [07/05/95] 7/5/1995	CEF-015-SW/SD1 CF15SW1F [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2 [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2D [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2DF [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2F [07/05/95] 7/5/1995	CEF-015-SW/SD3 CF15SW3 [07/06/95] 7/6/1995
DI-N-OCTYL PHTHALATE	10 U		10 U	10 U			10 U
DIBENZO(A,H)ANTHRACENE	10 U		10 U	10 U			10 U
DIBENZOFURAN	10 U		10 U	10 U			10 U
DIETHYL PHTHALATE	10 U		10 U	10 U			10 U
DIMETHYL PHTHALATE	10 U		10 U	10 U			10 U
FLUORANTHENE	10 U		10 U	10 U			10 U
FLUORENE	10 U		10 U	10 U			10 U
HEXACHLOROBENZENE	10 U		10 U	10 U			10 U
HEXACHLOROBUTADIENE	10 U		10 U	10 U			10 U
HEXACHLOROCYCLOPENTADIENE	10 U		10 U	10 U			10 U
HEXACHLOROETHANE	10 U		10 U	10 U			10 U
INDENO(1,2,3-CD)PYRENE	10 U		10 U	10 U			10 U
ISOPHORONE	10 U		10 U	10 U			10 U
N-NITROSO-DI-N-PROPYLAMINE	10 U		10 U	10 U			10 U
N-NITROSODIPHENYLAMINE	10 U		10 U	10 U			10 U
NAPHTHALENE	10 U		10 U	10 U			10 U
NITROBENZENE	10 U		10 U	10 U			10 U
PENTACHLOROPHENOL	25 U		25 U	25 U			25 U
PHENANTHRENE	10 U		10 U	10 U			10 U
PHENOL	10 U		10 U	10 U			10 U
PYRENE	10 U		10 U	10 U			10 U
Pesticides/PCBs (ug/L)							
4,4'-DDD	0.1 UJ		0.1 UJ	0.1 UJ			0.1 UJ
4,4'-DDE	0.1 UJ		0.1 UJ	0.1 UJ			0.1 UJ
4,4'-DDT	0.1 UJ		0.1 UJ	0.1 UJ			0.1 UJ
ALDRIN	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
ALPHA-BHC	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
ALPHA-CHLORDANE	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
AROCLOR-1016	1 UJ		1 UJ	1 UJ			1 UJ
AROCLOR-1221	2 UJ		2 UJ	2 UJ			2 UJ
AROCLOR-1232	1 UJ		1 UJ	1 UJ			1 UJ
AROCLOR-1242	1 UJ		1 UJ	1 UJ			1 UJ
AROCLOR-1248	1 UJ		1 UJ	1 UJ			1 UJ
AROCLOR-1254	1 UJ		1 UJ	1 UJ			1 UJ
AROCLOR-1260	1 UJ		1 UJ	1 UJ			1 UJ
BETA-BHC	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
DELTA-BHC	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
DIELDRIN	0.1 UJ		0.1 UJ	0.1 UJ			0.1 UJ
ENDOSULFAN I	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
ENDOSULFAN II	0.1 UJ		0.1 UJ	0.1 UJ			0.1 UJ

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD1 CF15SW1 [07/05/95] 7/5/1995	CEF-015-SW/SD1 CF15SW1F [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2 [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2D [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2DF [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2F [07/05/95] 7/5/1995	CEF-015-SW/SD3 CF15SW3 [07/06/95] 7/6/1995
ENDOSULFAN SULFATE	0.1 UJ		0.1 UJ	0.1 UJ			0.1 UJ
ENDRIN	0.1 UJ		0.1 UJ	0.1 UJ			0.1 UJ
ENDRIN ALDEHYDE	0.1 UJ		0.1 UJ	0.1 UJ			0.1 UJ
ENDRIN KETONE	0.1 UJ		0.1 UJ	0.1 UJ			0.1 UJ
GAMMA-BHC (LINDANE)	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
GAMMA-CHLORDANE	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
HEPTACHLOR	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
HEPTACHLOR EPOXIDE	0.05 UJ		0.05 UJ	0.05 UJ			0.05 UJ
METHOXYCHLOR	0.5 UJ		0.5 UJ	0.5 UJ			0.5 UJ
TOXAPHENE	5 UJ		5 UJ	5 UJ			5 UJ
Petroleum Hydrocarbons (mg/L)							
TOTAL PETROLEUM HYDROCARBONS	0.6 J		0.5 UJ	0.5 UJ			0.5 UJ
Explosives (ug/L)							
2,4,6-TRINITROTOLUENE	0.645 U		0.4 U	0.4 U			0.4 U
2-NITROTOLUENE	1.29 U		0.8 U	0.8 U			0.8 U
3-NITROTOLUENE	4.95		0.8 U	0.8 U			0.8 U
4-AMINO-2,6-DINITROTOLUENE	0.65 U		0.4 U	0.4 U			0.4 U
4-NITROTOLUENE	46.1		1.18	0.8 U			1.11
HMX	1.29 U		0.8 U	0.8 U			0.8 U
RDX	1.29 U		0.8 U	0.8 U			0.8 U
TETRYL	0.645 U		18.7	18.1			18.4
Inorganics (ug/L)							
ALUMINUM	586	513	441	447	403	450	649
ANTIMONY	20 U	20 U	20 U	20 U	20 U	20 U	20 U
ARSENIC	4.9	5.6	4	4.8 J	4 UJ	4 UJ	12
BARIUM	17.1	14.9	10.9	9.3	8.3	9.3	11.9
BERYLLIUM	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CADMIUM	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CALCIUM	620	538	4940	4080	3570	3960	2100
CHROMIUM	9 U	9 U	9 U	9 U	9 U	9 U	9 U
COBALT	6 U	6 U	6 U	6 U	6 U	6 U	6 U
COPPER	3 U	3 U	9	3 U	3 U	3 U	3 U
IRON	1370	1020	620	605	468	512	1980
LEAD	91	79.5	269	281	189	205	264
MAGNESIUM	503	458	557	440	396	493	429
MANGANESE	5.5 U	5.5 U	12.3 U	8.3 U	8.2 U	7.2 U	6.7 U
MERCURY	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
NICKEL	12 U	12 U	12 U	12 U	12 U	12 U	12 U
POTASSIUM	159 U	68.4 U	362	132 U	134 U	528	144 U
SELENIUM	4 U	4 U	4 U	4 U	4 U	4 U	4 U

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD1 CF15SW1 [07/05/95] 7/5/1995	CEF-015-SW/SD1 CF15SW1F [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2 [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2D [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2DF [07/05/95] 7/5/1995	CEF-015-SW/SD2 CF15SW2F [07/05/95] 7/5/1995	CEF-015-SW/SD3 CF15SW3 [07/06/95] 7/6/1995
SILVER	4 U	4 U	4 U	4 U	4 U	4 U	4 U
SODIUM	4190 J	4070	5220 J	3650 J	3400	3800	4000 J
THALLIUM	5 U	5 U	5 U	5 U	5 U	5 U	5 U
VANADIUM	3 U	3 U	3 U	3 U	3 U	3 U	3.3
ZINC	10.9 UJ	9.5 UJ	10.8 U	4 UJ	4 UJ	21.3 UJ	13 UJ
Miscellaneous Parameters							
ALKALINITY (MG/L)	10 U		10 U	10 U			
BICARBONATE ALKALINITY (MG/L)	10 U		10 U	10 U			
CARBONATE ALKALINITY (MG/L)	10 U		10 U	10 U			10 U
CHLORIDE (MG/L)	10 J		8 J	8 J			9 J
CYANIDE (UG/L)	3.8 U		4.4 UJ	2.4 U			2 U
HARDNESS (MG/L)	8 J		70 J	14 J			8 J
HEXAVALENT CHROMIUM (MG/L)	0.02 U		0.02 U	0.02 U			0.02 U
ORTHOPHOSPHATE (MG/L)	0.2		0.1 U	0.1 U			0.1 U
SULFATE (MG/L)	10 U		10 U	10 U			
SULFIDE (MG/L)	1 U		1	1 U			1 U
TOTAL DISSOLVED SOLIDS (MG/L)	52		70	63			77
TOTAL KJELDAHL NITROGEN (MG/L)	2 U		1 U	1 U			1 U

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD3 CF15SW3F [07/06/95] 7/6/1995	CEF-015-SW/SD4 CF15SW4 [05/07/97] 5/7/1997	CEF-015-SW/SD5 CF15SW5 [05/07/97] 5/7/1997	CEF-015-SW/SD6 CF15SW6 [05/07/97] 5/7/1997	CEF-015-SW/SD7 CF15SW7 [05/07/97] 5/7/1997
Volatile Organics (ug/L)					
1,1,1-TRICHLOROETHANE					
1,1,2,2-TETRACHLOROETHANE					
1,1,2-TRICHLOROETHANE					
1,1-DICHLOROETHANE					
1,1-DICHLOROETHENE					
1,2-DICHLOROETHANE					
1,2-DICHLOROPROPANE					
2-BUTANONE					
2-HEXANONE					
4-METHYL-2-PENTANONE					
ACETONE					
BENZENE					
BROMODICHLOROMETHANE					
BROMOFORM					
BROMOMETHANE					
CARBON DISULFIDE					
CARBON TETRACHLORIDE					
CHLOROBENZENE					
CHLORODIBROMOMETHANE					
CHLOROETHANE					
CHLOROFORM					
CHLOROMETHANE					
CIS-1,3-DICHLOROPROPENE					
ETHYLBENZENE					
METHYLENE CHLORIDE					
STYRENE					
TETRACHLOROETHENE					
TOLUENE					
TOTAL 1,2-DICHLOROETHENE					
TOTAL XYLENES					
TRANS-1,3-DICHLOROPROPENE					
TRICHLOROETHENE					
VINYL CHLORIDE					
Semivolatile Organics (ug/L)					
1,2,4-TRICHLOROBENZENE					
1,2-DICHLOROBENZENE					
1,3,5-TRINITROBENZENE					
1,3-DICHLOROBENZENE					
1,3-DINITROBENZENE					

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD3 CF15SW3F [07/06/95] 7/6/1995	CEF-015-SW/SD4 CF15SW4 [05/07/97] 5/7/1997	CEF-015-SW/SD5 CF15SW5 [05/07/97] 5/7/1997	CEF-015-SW/SD6 CF15SW6 [05/07/97] 5/7/1997	CEF-015-SW/SD7 CF15SW7 [05/07/97] 5/7/1997
1,4-DICHLOROBENZENE					
2,2'-OXYBIS(1-CHLOROPROPANE)					
2,4,5-TRICHLOROPHENOL					
2,4,6-TRICHLOROPHENOL					
2,4-DICHLOROPHENOL					
2,4-DIMETHYLPHENOL					
2,4-DINITROPHENOL					
2,4-DINITROTOLUENE					
2,6-DINITROTOLUENE					
2-CHLORONAPHTHALENE					
2-CHLOROPHENOL					
2-METHYLNAPHTHALENE					
2-METHYLPHENOL					
2-NITROANILINE					
2-NITROPHENOL					
3,3'-DICHLOROBENZIDINE					
3-NITROANILINE					
4,6-DINITRO-2-METHYLPHENOL					
4-BROMOPHENYL PHENYL ETHER					
4-CHLORO-3-METHYLPHENOL					
4-CHLOROANILINE					
4-CHLOROPHENYL PHENYL ETHER					
4-METHYLPHENOL					
4-NITROANILINE					
4-NITROPHENOL					
ACENAPHTHENE					
ACENAPHTHYLENE					
ANTHRACENE					
BENZO(A)ANTHRACENE					
BENZO(A)PYRENE					
BENZO(B)FLUORANTHENE					
BENZO(G,H,I)PERYLENE					
BENZO(K)FLUORANTHENE					
BIS(2-CHLOROETHOXY)METHANE					
BIS(2-CHLOROETHYL)ETHER					
BIS(2-ETHYLHEXYL)PHTHALATE					
BUTYL BENZYL PHTHALATE					
CARBAZOLE					
CHRYSENE					
DI-N-BUTYL PHTHALATE					

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD3 CF15SW3F [07/06/95] 7/6/1995	CEF-015-SW/SD4 CF15SW4 [05/07/97] 5/7/1997	CEF-015-SW/SD5 CF15SW5 [05/07/97] 5/7/1997	CEF-015-SW/SD6 CF15SW6 [05/07/97] 5/7/1997	CEF-015-SW/SD7 CF15SW7 [05/07/97] 5/7/1997
DI-N-OCTYL PHTHALATE					
DIBENZO(A,H)ANTHRACENE					
DIBENZOFURAN					
DIETHYL PHTHALATE					
DIMETHYL PHTHALATE					
FLUORANTHENE					
FLUORENE					
HEXACHLOROBENZENE					
HEXACHLOROBUTADIENE					
HEXACHLOROCYCLOPENTADIENE					
HEXACHLOROETHANE					
INDENO(1,2,3-CD)PYRENE					
ISOPHORONE					
N-NITROSO-DI-N-PROPYLAMINE					
N-NITROSODIPHENYLAMINE					
NAPHTHALENE					
NITROBENZENE					
PENTACHLOROPHENOL					
PHENANTHRENE					
PHENOL					
PYRENE					
Pesticides/PCBs (ug/L)					
4,4'-DDD					
4,4'-DDE					
4,4'-DDT					
ALDRIN					
ALPHA-BHC					
ALPHA-CHLORDANE					
AROCLOR-1016					
AROCLOR-1221					
AROCLOR-1232					
AROCLOR-1242					
AROCLOR-1248					
AROCLOR-1254					
AROCLOR-1260					
BETA-BHC					
DELTA-BHC					
DIELDRIN					
ENDOSULFAN I					
ENDOSULFAN II					

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD3 CF15SW3F [07/06/95] 7/6/1995	CEF-015-SW/SD4 CF15SW4 [05/07/97] 5/7/1997	CEF-015-SW/SD5 CF15SW5 [05/07/97] 5/7/1997	CEF-015-SW/SD6 CF15SW6 [05/07/97] 5/7/1997	CEF-015-SW/SD7 CF15SW7 [05/07/97] 5/7/1997
ENDOSULFAN SULFATE					
ENDRIN					
ENDRIN ALDEHYDE					
ENDRIN KETONE					
GAMMA-BHC (LINDANE)					
GAMMA-CHLORDANE					
HEPTACHLOR					
HEPTACHLOR EPOXIDE					
METHOXYCHLOR					
TOXAPHENE					
Petroleum Hydrocarbons (mg/L)					
TOTAL PETROLEUM HYDROCARBONS					
Explosives (ug/L)					
2,4,6-TRINITROTOLUENE					
2-NITROTOLUENE					
3-NITROTOLUENE					
4-AMINO-2,6-DINITROTOLUENE					
4-NITROTOLUENE					
HMX					
RDX					
TETRYL					
Inorganics (ug/L)					
ALUMINUM	585				
ANTIMONY	20 U				
ARSENIC	12.2				
BARIUM	11.3				
BERYLLIUM	1 U				
CADMIUM	1 U				
CALCIUM	1980				
CHROMIUM	9 U				
COBALT	6 U				
COPPER	3 U				
IRON	1650				
LEAD	225	398	359	195	271
MAGNESIUM	396				
MANGANESE	8 U				
MERCURY	0.2 U				
NICKEL	12 U				
POTASSIUM	137 U				
SELENIUM	4 U				

APPENDIX C-4

SURFACE WATER ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION SAMPLE NUMBER SAMPLE DATE	CEF-015-SW/SD3 CF15SW3F [07/06/95] 7/6/1995	CEF-015-SW/SD4 CF15SW4 [05/07/97] 5/7/1997	CEF-015-SW/SD5 CF15SW5 [05/07/97] 5/7/1997	CEF-015-SW/SD6 CF15SW6 [05/07/97] 5/7/1997	CEF-015-SW/SD7 CF15SW7 [05/07/97] 5/7/1997
SILVER	4 U				
SODIUM	4020				
THALLIUM	5 U				
VANADIUM	3 U				
ZINC	10.9 UJ				
Miscellaneous Parameters					
ALKALINITY (MG/L)					
BICARBONATE ALKALINITY (MG/L)					
CARBONATE ALKALINITY (MG/L)					
CHLORIDE (MG/L)					
CYANIDE (UG/L)					
HARDNESS (MG/L)					
HEXAVALENT CHROMIUM (MG/L)					
ORTHOPHOSPHATE (MG/L)					
SULFATE (MG/L)					
SULFIDE (MG/L)					
TOTAL DISSOLVED SOLIDS (MG/L)					
TOTAL KJELDAHL NITROGEN (MG/L)					

E-5 ECOLOGICAL

E-5.1: INVERTEBRATE ANALYTICAL RESULTS

APPENDIX C-5.1

INVERTEBRATE ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-701	CEF-015-SS-703	CEF-015-SS-704	CEF-015-SS-706	CEF-015-SS-707	CEF-015-SS-707A	CEF-015-SS-708	CEF-015-SS-708A
SAMPLE NUMBER	CEF-015-IV-024	CEF-015-IV-003	CEF-015-IV-004	CEF-015-IV-006	CEF-015-IV-007	CEF-015-IV-007A	CEF-015-IV-008	CEF-015-IV-008A
SAMPLE DATE	6/23/2001	6/27/2001	6/26/2001	6/27/2001	6/25/2001	6/25/2001	6/26/2001	6/23/2001
Inorganics (mg/kg)								
LEAD	5.2	46.5	36.7	333	3.8	1.7	157	3.5

APPENDIX C-5.1

INVERTEBRATE ANALYTIC RESULTS
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-709	CEF-015-SS-717	CEF-015-SS-719	CEF-015-SS-719A	CEF-015-SS-739	CEF-015-SS-740	CEF-015-SS-741
SAMPLE NUMBER	CEF-015-IV-009	CEF-015-IV-017	CEF-015-IV-019	CEF-015-IV-019A	CEF-015-IV-021	CEF-015-IV-022	CEF-015-IV-023
SAMPLE DATE	6/26/2001	6/27/2001	6/26/2001	6/23/2001	6/24/2001	6/24/2001	6/24/2001
Inorganics (mg/kg)							
LEAD	11.6	3.7	0.7	1.7	0.16 U	0.16 U	0.16 U

E-5.2: INVERTEBRATE SOIL ANALYTICAL RESULTS

APPENDIX C-5.2

INVERTEBRATE SOIL ANALYTIC RESULTS (JUNE 2001)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-701	CEF-015-SS-703	CEF-015-SS-704	CEF-015-SS-706	CEF-015-SS-707	CEF-015-SS-707A	CEF-015-SS-708	CEF-015-SS-708A	CEF-015-SS-709
SAMPLE NUMBER	CEF-015-SS-701	CEF-015-SS-703	CEF-015-SS-704	CEF-015-SS-706	CEF-015-SS-707	CEF-015-SS-707A	CEF-015-SS-708	CEF-015-SS-708A	CEF-015-SS-709
DEPTH	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25
SAMPLE DATE	6/23/2001	6/27/2001	6/26/2001	6/27/2001	6/25/2001	6/25/2001	6/26/2001	6/23/2001	6/26/2001
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE	45000 U	1700 U	1600 U	1600 U	2500 U	2400 U	2200 U	1800 U	1600 U
2-METHYLNAPHTHALENE	45000 U	1700 U	1600 U	1600 U	2500 U	2400 U	2200 U	1800 U	1600 U
ACENAPHTHENE	90000 U	3400 U	3300 U	3300 U	5000 U	4900 U	4500 U	3700 U	3200 U
ACENAPHTHYLENE	90000 U	3400 U	3300 U	3300 U	5000 U	4900 U	4500 U	3700 U	3200 U
ANTHRACENE	45000 U	1700 U	1600 U	1600 U	2500 U	2400 U	2200 U	1800 U	1600 U
BENZO(A)ANTHRACENE	74200	1700 U	1600 U	1600 U	2500 U	2400 U	1720 J	1800 U	1600 U
BENZO(A)PYRENE	72200	340 U	325 J	282 J	500 U	490 U	2120	370 U	288 J
BENZO(B)FLUORANTHENE	54400	340 U	219 J	188 J	500 U	490 U	1500	370 U	170 J
BENZO(G,H,I)PERYLENE	40600	340 U	366	298 J	500 U	490 U	1960	370 U	274 J
BENZO(K)FLUORANTHENE	38600	340 U	151 J	330 U	500 U	490 U	999	370 U	320 U
CHRYSENE	79600	1700 U	1600 U	1600 U	2500 U	2400 U	1720 J	1800 U	1600 U
DIBENZO(A,H)ANTHRACENE	8030 J	340 U	330 U	330 U	500 U	490 U	450 U	370 U	320 U
FLUORANTHENE	97300	1700 U	1600 U	1600 U	2500 U	2400 U	1990 J	1800 U	1600 U
FLUORENE	45000 U	1700 U	1600 U	1600 U	2500 U	2400 U	2200 U	1800 U	1600 U
INDENO(1,2,3-CD)PYRENE	47200	340 U	244 J	191 J	500 U	490 U	1310	370 U	174 J
NAPHTHALENE	45000 U	1700 U	1600 U	1600 U	2500 U	2400 U	2200 U	1800 U	3200 U
PHENANTHRENE	20800 J	1700 U	1600 U	1600 U	2500 U	2400 U	2200 U	1800 U	1600 U
PYRENE	87800	1700 U	3200 U	1600 U	2500 U	2400 U	1780 J	1800 U	1600 U
Inorganics (mg/kg)									
LEAD	419	1400	3380	5470	3080	672	2200	894	709
Miscellaneous Parameters (mg/kg)									
CATION EXCHANGE CAPACITY	5350	5010	5840	4730	7820	9610	8950	7830	5360
TOTAL ORGANIC CARBON	63300	40700	53700	25300	121000	119000	93000	98600	30400

APPENDIX C-5.2

INVERTEBRATE SOIL ANALYTIC RESULTS (JUNE 2001)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-717	CEF-015-SS-719	CEF-015-SS-719A	CEF-015-SS-719A	CEF-015-SS-721	CEF-015-SS-722	CEF-015-SS-724	CEF-015-SS-724	CEF-015-SS-726A
SAMPLE NUMBER	CEF-015-SS-717	CEF-015-SS-719	CEF-015-SS-719A	CEF-015-SS-719A-D	CEF-015-SS-721	CEF-015-SS-722	CEF-015-SS-724	CEF-015-SS-724B	CEF-015-SS-726A
DEPTH	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25
SAMPLE DATE	6/27/2001	6/26/2001	6/23/2001	6/23/2001	6/19/2001	6/20/2001	6/20/2001	6/27/2001	6/21/2001
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)									
1-METHYLNAPHTHALENE	1600 U	1700 U	2300 U	2200 U	17000 U	1900 U	1800 U	1600 U	31000 U
2-METHYLNAPHTHALENE	1600 U	1700 U	2300 U	2200 U	17000 U	1900 U	1800 U	1600 U	31000 U
ACENAPHTHENE	3200 U	3500 U	4700 U	4400 U	35000 U	3700 U	3600 U	3300 U	63000 U
ACENAPHTHYLENE	3200 U	3500 U	4700 U	4400 U	35000 U	3700 U	3600 U	3300 U	63000 U
ANTHRACENE	1600 U	1700 U	2300 U	2200 U	17000 U	1900 U	1800 U	1600 U	23700 J
BENZO(A)ANTHRACENE	1600 U	1060 J	2300 U	2200 U	36500	1900 U	1800 U	1600 U	111000
BENZO(A)PYRENE	320 U	1330	292 J	282 J	43300	370 U	460	517	116000
BENZO(B)FLUORANTHENE	320 U	800	368 J	424 J	31400	370 U	629	351	83300
BENZO(G,H,I)PERYLENE	320 U	1280	470 U	440 U	29800	370 U	390	585	63300
BENZO(K)FLUORANTHENE	320 U	625	152 J	440 U	19500	370 U	214 J	364	56000
CHRYSENE	1600 U	1000 J	2300 U	2200 U	43100	1900 U	1800 U	1600 U	116000
DIBENZO(A,H)ANTHRACENE	320 U	350 U	470 U	440 U	3000 J	370 U	360 U	330 U	9220
FLUORANTHENE	1600 U	1180 J	2300 U	2200 U	70500	1900 U	1800 U	1600 U	211000
FLUORENE	1600 U	1700 U	2300 U	2200 U	17000 U	1900 U	1800 U	1600 U	31000 U
INDENO(1,2,3-CD)PYRENE	320 U	850	305 J	313 J	30700	370 U	468	374	65400
NAPHTHALENE	3200 U	1700 U	2300 U	2200 U	17000 U	1900 U	1800 U	1600 U	31000 U
PHENANTHRENE	1600 U	1700 U	2300 U	2200 U	26800	1900 U	1800 U	1600 U	87600
PYRENE	1600 U	1300 J	2300 U	2200 U	61100	1900 U	1800 U	1600 U	179000
Inorganics (mg/kg)									
LEAD	120	66.3	109	86.6	102	23.4	48.5	31	532
Miscellaneous Parameters (mg/kg)									
CATION EXCHANGE CAPACITY	5310	4190	9840		5470	6800	4970		5540
TOTAL ORGANIC CARBON	32900	37100	80500		58600	68600	49200		28000

APPENDIX C-5.2

INVERTEBRATE SOIL ANALYTIC RESULTS (JUNE 2001)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-727A	CEF-015-SS-727A	CEF-015-SS-728A	CEF-015-SS-732	CEF-015-SS-733	CEF-015-SS-734	CEF-015-SS-735A	CEF-015-SS-735A
SAMPLE NUMBER	CEF-015-SS-727A	CEF-015-SS-727A-D	CEF-015-SS-728A	CEF-015-SS-732	CEF-015-SS-733	CEF-015-SS-734	CEF-015-SS-735A	CEF-015-SS-735A-D
DEPTH	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25
SAMPLE DATE	6/22/2001	6/22/2001	6/21/2001	6/20/2001	6/19/2001	6/19/2001	6/21/2001	6/21/2001
SAMPLE CODE	ORIG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	DUP
Semivolatile Organics (ug/kg)								
1-METHYLNAPHTHALENE	1600 U	1500 U	2200 U	1700 U	4100 U	33000 U	1600 U	1500 U
2-METHYLNAPHTHALENE	1600 U	1500 U	2200 U	1700 U	4100 U	33000 U	1600 U	1500 U
ACENAPHTHENE	3200 U	3000 U	4300 U	3400 U	8200 U	66000 U	3300 U	3000 U
ACENAPHTHYLENE	3200 U	3000 U	4300 U	3400 U	8200 U	66000 U	3300 U	3000 U
ANTHRACENE	1600 U	1500 U	2200 U	1700 U	4100 U	33000 U	1600 U	1500 U
BENZO(A)ANTHRACENE	1440 J	1570	4560	863 J	8520	59900	1600 U	1500 U
BENZO(A)PYRENE	1610	1810	5500	576	10000	71300	291 J	298 J
BENZO(B)FLUORANTHENE	1250	1430	4150	489	7090	49200	327 J	276 J
BENZO(G,H,I)PERYLENE	1190	1460	3890	432	6880	44400	280 J	211 J
BENZO(K)FLUORANTHENE	768	878	2560	271 J	4510	29800	330 U	152 J
CHRYSENE	1610	1770	5130	566 J	9680	71600	1600 U	1500 U
DIBENZO(A,H)ANTHRACENE	167 J	180 J	497	340 U	927	3650 J	330 U	300 U
FLUORANTHENE	2660	2870	8790	783 J	15600	113000	1600 U	1500 U
FLUORENE	1600 U	1500 U	2200 U	1700 U	4100 U	33000 U	1600 U	1500 U
INDENO(1,2,3-CD)PYRENE	1260	1430	4050	577	6820	47100	360	270 J
NAPHTHALENE	1600 U	1500 U	2200 U	1700 U	4100 U	33000 U	1600 U	1500 U
PHENANTHRENE	1220 J	1260 J	3590	1700 U	6290	35200	1600 U	1500 U
PYRENE	2380	2580	7620	846 J	13400	104000	1600 U	1500 U
Inorganics (mg/kg)								
LEAD	276	290	84.8	214	336	73	40.5	40.7
Miscellaneous Parameters (mg/kg)								
CATION EXCHANGE CAPACITY	3580		5530	4590	7130	6140	5480	
TOTAL ORGANIC CARBON	31300		54100	53600	43000	48500	53900	

APPENDIX C-5.2

INVERTEBRATE SOIL ANALYTIC RESULTS (JUNE 2001)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-736A	CEF-015-SS-737	CEF-015-SS-739	CEF-015-SS-740	CEF-015-SS-741
SAMPLE NUMBER	CEF-015-SS-736A	CEF-015-SS-737	CEF-015-SS-739	CEF-015-SS-740	CEF-015-SS-741
DEPTH	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25
SAMPLE DATE	6/22/2001	6/20/2001	6/24/2001	6/24/2001	6/24/2001
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Semivolatile Organics (ug/kg)					
1-METHYLNAPHTHALENE	2100 U	1900 U	2000 U	2100 U	960 U
2-METHYLNAPHTHALENE	2100 U	1900 U	2000 U	2100 U	960 U
ACENAPHTHENE	4200 U	3800 U	4000 U	4300 U	1900 U
ACENAPHTHYLENE	4200 U	3800 U	4000 U	4300 U	1900 U
ANTHRACENE	2100 U	1900 U	2000 U	2100 U	960 U
BENZO(A)ANTHRACENE	2100 U	1900 U	2000 U	2100 U	960 U
BENZO(A)PYRENE	420 U	739	400 U	430 U	190 U
BENZO(B)FLUORANTHENE	420 U	696	400 U	430 U	190 U
BENZO(G,H,I)PERYLENE	420 U	578	400 U	430 U	190 U
BENZO(K)FLUORANTHENE	420 U	366 J	400 U	430 U	190 U
CHRYSENE	2100 U	1900 U	2000 U	2100 U	960 U
DIBENZO(A,H)ANTHRACENE	420 U	380 U	400 U	430 U	190 U
FLUORANTHENE	2100 U	972 J	2000 U	2100 U	960 U
FLUORENE	2100 U	1900 U	2000 U	2100 U	960 U
INDENO(1,2,3-CD)PYRENE	420 U	638	400 U	430 U	190 U
NAPHTHALENE	2100 U	1900 U	2000 U	2100 U	960 U
PHENANTHRENE	2100 U	1900 U	2000 U	2100 U	960 U
PYRENE	2100 U	969 J	2000 U	2100 U	960 U
Inorganics (mg/kg)					
LEAD	0.73 U	45.8	11.4	9.3	7.8
Miscellaneous Parameters (mg/kg)					
CATION EXCHANGE CAPACITY	10200	6580	5440	5810	6610
TOTAL ORGANIC CARBON	137000	42100	59700	55000	71500

E-6 ADDITIONAL DATA

E-6.1: TOXICITY SOIL ANALYTICAL RESULTS

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS015	CF15SS015	CF15SS015	CF15SS018	CF15SS020
SAMPLE NUMBER	CF15SS007 [06/21/96]	CF15SS015-12.5 [06/21/96]	CF15SS015-25 [06/21/96]	CF15SS015-50 [06/21/96]	CF15SS018 [06/21/96]	CF15SS020 [06/21/96]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Volatile Organics (ug/kg)						
1,1,1-TRICHLOROETHANE						
1,1,2,2-TETRACHLOROETHANE						
1,1,2-TRICHLOROETHANE						
1,1-DICHLOROETHANE						
1,1-DICHLOROETHENE						
1,2-DICHLOROETHANE						
1,2-DICHLOROPROPANE						
2-BUTANONE						
2-HEXANONE						
4-METHYL-2-PENTANONE						
ACETONE						
BENZENE						
BROMODICHLOROMETHANE						
BROMOFORM						
BROMOMETHANE						
CARBON DISULFIDE						
CARBON TETRACHLORIDE						
CHLOROBENZENE						
CHLORODIBROMOMETHANE						
CHLOROETHANE						
CHLOROFORM						
CHLOROMETHANE						
CIS-1,3-DICHLOROPROPENE						
ETHYLBENZENE						
METHYLENE CHLORIDE						
STYRENE						
TETRACHLOROETHENE						
TOLUENE						
TOTAL 1,2-DICHLOROETHENE						
TOTAL XYLENES						
TRANS-1,3-DICHLOROPROPENE						
TRICHLOROETHENE						
VINYL CHLORIDE						
Semivolatile Organics (ug/kg)						
1,2,4-TRICHLOROBENZENE						
1,2-DICHLOROBENZENE						
1,3-DICHLOROBENZENE						

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS015	CF15SS015	CF15SS015	CF15SS018	CF15SS020
SAMPLE NUMBER	CF15SS007 [06/21/96]	CF15SS015-12.5 [06/21/96]	CF15SS015-25 [06/21/96]	CF15SS015-50 [06/21/96]	CF15SS018 [06/21/96]	CF15SS020 [06/21/96]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
1,4-DICHLOROBENZENE						
2,2'-OXYBIS(1-CHLOROPROPANE)						
2,4,5-TRICHLOROPHENOL						
2,4,6-TRICHLOROPHENOL						
2,4-DICHLOROPHENOL						
2,4-DIMETHYLPHENOL						
2,4-DINITROPHENOL						
2,4-DINITROTOLUENE						
2,6-DINITROTOLUENE						
2-CHLORONAPHTHALENE						
2-CHLOROPHENOL						
2-METHYLNAPHTHALENE						
2-METHYLPHENOL						
2-NITROANILINE						
2-NITROPHENOL						
3,3'-DICHLOROBENZIDINE						
3-NITROANILINE						
4,6-DINITRO-2-METHYLPHENOL						
4-BROMOPHENYL PHENYL ETHER						
4-CHLORO-3-METHYLPHENOL						
4-CHLOROANILINE						
4-CHLOROPHENYL PHENYL ETHER						
4-METHYLPHENOL						
4-NITROANILINE						
4-NITROPHENOL						
ACENAPHTHENE						
ACENAPHTHYLENE						
ANTHRACENE						
BENZO(A)ANTHRACENE						
BENZO(A)PYRENE						
BENZO(B)FLUORANTHENE						
BENZO(G,H,I)PERYLENE						
BENZO(K)FLUORANTHENE						
BIS(2-CHLOROETHOXY)METHANE						
BIS(2-CHLOROETHYL)ETHER						
BIS(2-ETHYLHEXYL)PHTHALATE						
BUTYL BENZYL PHTHALATE						
CARBAZOLE						

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS015	CF15SS015	CF15SS015	CF15SS018	CF15SS020
SAMPLE NUMBER	CF15SS007 [06/21/96]	CF15SS015-12.5 [06/21/96]	CF15SS015-25 [06/21/96]	CF15SS015-50 [06/21/96]	CF15SS018 [06/21/96]	CF15SS020 [06/21/96]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
CHRYSENE						
DI-N-BUTYL PHTHALATE						
DI-N-OCTYL PHTHALATE						
DIBENZO(A,H)ANTHRACENE						
DIBENZOFURAN						
DIETHYL PHTHALATE						
DIMETHYL PHTHALATE						
FLUORANTHENE						
FLUORENE						
HEXACHLOROBENZENE						
HEXACHLOROBUTADIENE						
HEXACHLOROCYCLOPENTADIENE						
HEXACHLOROETHANE						
INDENO(1,2,3-CD)PYRENE						
ISOPHORONE						
N-NITROSO-DI-N-PROPYLAMINE						
N-NITROSODIPHENYLAMINE						
NAPHTHALENE						
NITROBENZENE						
PENTACHLOROPHENOL						
PHENANTHRENE						
PHENOL						
PYRENE						
Pesticides/PCBs (ug/kg)						
4,4'-DDD						
4,4'-DDE						
4,4'-DDT						
ALDRIN						
ALPHA-BHC						
ALPHA-CHLORDANE						
AROCLOR-1016						
AROCLOR-1221						
AROCLOR-1232						
AROCLOR-1242						
AROCLOR-1248						
AROCLOR-1254						
AROCLOR-1260						
BETA-BHC						

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS015	CF15SS015	CF15SS015	CF15SS018	CF15SS020
SAMPLE NUMBER	CF15SS007 [06/21/96]	CF15SS015-12.5 [06/21/96]	CF15SS015-25 [06/21/96]	CF15SS015-50 [06/21/96]	CF15SS018 [06/21/96]	CF15SS020 [06/21/96]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
DELTA-BHC						
DIELDRIN						
ENDOSULFAN I						
ENDOSULFAN II						
ENDOSULFAN SULFATE						
ENDRIN						
ENDRIN ALDEHYDE						
ENDRIN KETONE						
GAMMA-BHC (LINDANE)						
GAMMA-CHLORDANE						
HEPTACHLOR						
HEPTACHLOR EPOXIDE						
METHOXYCHLOR						
TOXAPHENE						
Petroleum Hydrocarbons (mg/kg)						
TOTAL PETROLEUM HYDROCARBONS						
Inorganics (mg/kg)						
ALUMINUM	51.4	24.9 J	104	168 J	64	62.1
ANTIMONY	4.6 U	4.6 U	4.6 U	35.4 U	4.6 U	4.6 U
ARSENIC	2.5	1.1 J	1.9 J	5.8 J	0.6 U	1.2 J
BARIUM	9.8 J	1.1 J	0.89 J	3.1 U	1 J	1.3 J
BERYLLIUM	0.4 U	0.4 U	0.4 U	3.1 U	0.4 U	0.4 U
CADMIUM	2.4	0.6 U	0.6 U	4.6 U	0.6 U	0.6 U
CALCIUM	1060	777 J	770 J	1100 J	1180	910 J
CHROMIUM	0.49 J	0.4 U	0.4 U	3.1 U	0.4 U	0.45 J
COBALT	1.4 U	1.4 U	1.8 J	10.8 U	1.4 U	1.4 U
COPPER	4.2 J	4.1 J	3.3 J	6.2 U	2 J	3.2 J
IRON	70.1	68.8	94.2	171	57.5	69.2
LEAD	83.3	122	249	746	5.2	41.6
MAGNESIUM	188 J	179 J	180 J	308 J	154 J	241 J
MANGANESE	3.9	2.4 J	1.8 J	3.2 J	3.7	4.5
MERCURY	0.05 U	0.05 U	0.05 U		0.05 U	0.09 J
NICKEL	2.6 U	2.6 U	2.6 U	20 U	2.6 U	2.6 U
POTASSIUM	1340 J	998 J	1120 J	2130 J	1250 J	1480 J
SELENIUM	1.2	1.5	1.4	6.2 U	0.88 J	1.3
SILVER	0.6 U	0.61 J	0.77 J	5.3 J	0.6 U	0.6 U
SODIUM	656 J	881 J	706 J	1370 J	621 J	722 J
THALLIUM	0.45 J	0.4 U	0.4 U	3.1 U	0.4 U	0.4 U

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS007 (Con)	CF15SS015	CF15SS015	CF15SS015	CF15SS018	CF15SS020
SAMPLE NUMBER	CF15SS007 [06/21/96]	CF15SS015-12.5 [06/21/96]	CF15SS015-25 [06/21/96]	CF15SS015-50 [06/21/96]	CF15SS018 [06/21/96]	CF15SS020 [06/21/96]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996	6/21/1996
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
VANADIUM	0.6 U	0.77 J	0.67 J	4.6 U	0.6 U	0.6 U
ZINC	29.9	28.3	24.6	57.5	20.3	24.2
Miscellaneous Parameters (mg/kg)						
CYANIDE						

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CEFBSS07 [07/20/93]	CF15SS048 [06/21/96]
DEPTH	0-1	0-1
SAMPLE DATE	7/20/1993	6/21/1996
SAMPLE CODE	NORMAL	NORMAL
Volatile Organics (ug/kg)		
1,1,1-TRICHLOROETHANE	5 U	
1,1,2,2-TETRACHLOROETHANE	5 U	
1,1,2-TRICHLOROETHANE	5 U	
1,1-DICHLOROETHANE	5 U	
1,1-DICHLOROETHENE	5 U	
1,2-DICHLOROETHANE	5 U	
1,2-DICHLOROPROPANE	5 U	
2-BUTANONE	11 U	
2-HEXANONE	11 U	
4-METHYL-2-PENTANONE	11 U	
ACETONE	5 U	
BENZENE	5 U	
BROMODICHLOROMETHANE	5 U	
BROMOFORM	5 U	
BROMOMETHANE	11 U	
CARBON DISULFIDE	5 U	
CARBON TETRACHLORIDE	5 U	
CHLOROBENZENE	5 U	
CHLORODIBROMOMETHANE	5 U	
CHLOROETHANE	11 U	
CHLOROFORM	5 U	
CHLOROMETHANE	11 U	
CIS-1,3-DICHLOROPROPENE	5 U	
ETHYLBENZENE	5 U	
METHYLENE CHLORIDE	5 U	
STYRENE	5 U	
TETRACHLOROETHENE	5 U	
TOLUENE	5 U	
TOTAL 1,2-DICHLOROETHENE	5 U	
TOTAL XYLENES	5 U	
TRANS-1,3-DICHLOROPROPENE	5 U	
TRICHLOROETHENE	5 U	
VINYL CHLORIDE	11 U	
Semivolatile Organics (ug/kg)		
1,2,4-TRICHLOROBENZENE	360 U	
1,2-DICHLOROBENZENE	360 U	
1,3-DICHLOROBENZENE	360 U	

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CEFBSS07 [07/20/93]	CF15SS048 [06/21/96]
DEPTH	0-1	0-1
SAMPLE DATE	7/20/1993	6/21/1996
SAMPLE CODE	NORMAL	NORMAL
1,4-DICHLOROBENZENE	360 U	
2,2'-OXYBIS(1-CHLOROPROPANE)	360 U	
2,4,5-TRICHLOROPHENOL	870 U	
2,4,6-TRICHLOROPHENOL	360 U	
2,4-DICHLOROPHENOL	360 U	
2,4-DIMETHYLPHENOL	360 U	
2,4-DINITROPHENOL	870 U	
2,4-DINITROTOLUENE	360 U	
2,6-DINITROTOLUENE	360 U	
2-CHLORONAPHTHALENE	360 U	
2-CHLOROPHENOL	360 U	
2-METHYLNAPHTHALENE	360 U	
2-METHYLPHENOL	360 U	
2-NITROANILINE	870 U	
2-NITROPHENOL	360 U	
3,3'-DICHLOROBENZIDINE	360 U	
3-NITROANILINE	870 U	
4,6-DINITRO-2-METHYLPHENOL	870 U	
4-BROMOPHENYL PHENYL ETHER	360 U	
4-CHLORO-3-METHYLPHENOL	360 U	
4-CHLOROANILINE	360 U	
4-CHLOROPHENYL PHENYL ETHER	360 U	
4-METHYLPHENOL	360 U	
4-NITROANILINE	870 U	
4-NITROPHENOL	870 U	
ACENAPHTHENE	360 U	
ACENAPHTHYLENE	360 U	
ANTHRACENE	360 U	
BENZO(A)ANTHRACENE	360 U	
BENZO(A)PYRENE	360 U	
BENZO(B)FLUORANTHENE	360 U	
BENZO(G,H,I)PERYLENE	360 U	
BENZO(K)FLUORANTHENE	360 U	
BIS(2-CHLOROETHOXY)METHANE	360 U	
BIS(2-CHLOROETHYL)ETHER	360 U	
BIS(2-ETHYLHEXYL)PHTHALATE	48 J	
BUTYL BENZYL PHTHALATE	360 U	
CARBAZOLE	360 U	

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CEFBSS07 [07/20/93]	CF15SS048 [06/21/96]
DEPTH	0-1	0-1
SAMPLE DATE	7/20/1993	6/21/1996
SAMPLE CODE	NORMAL	NORMAL
CHRYSENE	360 U	
DI-N-BUTYL PHTHALATE	360 U	
DI-N-OCTYL PHTHALATE	360 U	
DIBENZO(A,H)ANTHRACENE	360 U	
DIBENZOFURAN	360 U	
DIETHYL PHTHALATE	360 U	
DIMETHYL PHTHALATE	360 U	
FLUORANTHENE	360 U	
FLUORENE	360 U	
HEXACHLOROBENZENE	360 U	
HEXACHLOROBUTADIENE	360 U	
HEXACHLOROCYCLOPENTADIENE	360 U	
HEXACHLOROETHANE	360 U	
INDENO(1,2,3-CD)PYRENE	360 U	
ISOPHORONE	360 U	
N-NITROSO-DI-N-PROPYLAMINE	360 U	
N-NITROSODIPHENYLAMINE	360 U	
NAPHTHALENE	360 U	
NITROBENZENE	360 U	
PENTACHLOROPHENOL	870 U	
PHENANTHRENE	360 U	
PHENOL	360 U	
PYRENE	360 U	
Pesticides/PCBs (ug/kg)		
4,4'-DDD	3.6 U	
4,4'-DDE	3.6 U	
4,4'-DDT	3.6 U	
ALDRIN	1.8 U	
ALPHA-BHC	1.8 U	
ALPHA-CHLORDANE	1.8 U	
AROCLOR-1016	36 U	
AROCLOR-1221	72 U	
AROCLOR-1232	36 U	
AROCLOR-1242	36 U	
AROCLOR-1248	36 U	
AROCLOR-1254	36 U	
AROCLOR-1260	36 U	
BETA-BHC	1.8 U	

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CEFBSS07 [07/20/93]	CF15SS048 [06/21/96]
DEPTH	0-1	0-1
SAMPLE DATE	7/20/1993	6/21/1996
SAMPLE CODE	NORMAL	NORMAL
DELTA-BHC	1.8 U	
DIELDRIN	3.6 U	
ENDOSULFAN I	1.8 U	
ENDOSULFAN II	3.6 U	
ENDOSULFAN SULFATE	3.6 U	
ENDRIN	3.6 U	
ENDRIN ALDEHYDE	0.4 U	
ENDRIN KETONE	3.6 U	
GAMMA-BHC (LINDANE)	1.8 U	
GAMMA-CHLORDANE	1.8 U	
HEPTACHLOR	1.8 U	
HEPTACHLOR EPOXIDE	1.8 U	
METHOXYCHLOR	18 U	
TOXAPHENE	180 U	
Petroleum Hydrocarbons (mg/kg)		
TOTAL PETROLEUM HYDROCARBONS	13	
Inorganics (mg/kg)		
ALUMINUM	284	14.4 J
ANTIMONY	3.3 U	4.6 U
ARSENIC	0.22 U	0.6 U
BARIUM	1.7 U	0.4 U
BERYLLIUM	0.22 U	0.4 U
CADMIUM	0.88 U	0.6 U
CALCIUM	119 U	667 J
CHROMIUM	1.8 U	0.4 U
COBALT	1.3 U	1.5 J
COPPER	2.3 U	2.3 J
IRON	136	67.2
LEAD	2.1 U	0.4 U
MAGNESIUM	17.2 U	145 J
MANGANESE	3.6	2.2 J
MERCURY	0.1 U	0.05 U
NICKEL	1.5 U	2.6 U
POTASSIUM	13.8 U	899 J
SELENIUM	0.22 U	1.3
SILVER	0.88 U	0.6 U
SODIUM	209 U	784 J
THALLIUM	0.44 U	0.4 U

APPENDIX C-6.1

TOXICITY SOIL ANALYTIC RESULTS (JUNE 1996)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS048 (Con)	CF15SS048 (Con)
SAMPLE NUMBER	CEFBSS07 [07/20/93]	CF15SS048 [06/21/96]
DEPTH	0-1	0-1
SAMPLE DATE	7/20/1993	6/21/1996
SAMPLE CODE	NORMAL	NORMAL
VANADIUM	1.3 J	0.6 U
ZINC	3.6 U	21
Miscellaneous Parameters (mg/kg)		
CYANIDE	0.53 U	

E-6.2: SIEVE AND LEAD SOIL ANALYTICAL RESULTS

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS060	CF15SS060	CF15SS082	CF15SS082	CF15SS082	CF15SS082	CF15SS082	CF15SS082	CF15SS082	CF15SS082	CF15SS094
SAMPLE NUMBER	CF15SS6012A	CF15SS6012B	CF15SS8203A	CF15SS8203B	CF15SS8236A	CF15SS8236B	CF15SS8269A	CF15SS8269B	CF15SS82912A	CF15SS82912B	CF15SS9403A
DEPTH	0-1	0-1	0-0.25	0-0.25	0.25-0.5	0.25-0.5	0.5-0.75	0.5-0.75	0.75-1	0.75-1	0-0.25
SAMPLE DATE	2/4/1997	2/6/1997	2/4/1997	2/6/1997	2/4/1997	2/6/1997	2/4/1997	2/6/1997	2/4/1997	2/6/1997	2/4/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)											
LEAD	531	487	1270	1310	2430	2110	521	418	126	133	9920
TCLP Inorganics (ug/L)											
LEAD	3500	3100	1300	1300	6400	5800	2000	1700	1100	1000	7000

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS094	CF15SS094	CF15SS094	CF15SS094	CF15SS094	CF15SS094	CF15SS094	CF15SS095	CF15SS095	CF15SS097
SAMPLE NUMBER	CF15SS9403B	CF15SS9436A	CF15SS9436B	CF15SS9469A	CF15SS9469B	CF15SS94912A	CF15SS94912B	CF15SS95012A	CF15SS95012B	CF15SS97012A
DEPTH	0-0.25	0.25-0.5	0.25-0.5	0.5-0.75	0.5-0.75	0.75-1	0.75-1	0-1	0-1	0-1
SAMPLE DATE	2/7/1997	2/4/1997	2/6/1997	2/4/1997	2/6/1997	2/4/1997	2/7/1997	2/4/1997	2/5/1997	2/4/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)										
LEAD	9080	3860	3540	746	666	1370	1170	1820	1910	2050
TCLP Inorganics (ug/L)										
LEAD	9200	39400	20600	7600	3800	18400	8300	21000	10700	11000

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS097	CF15SS136	CF15SS136	CF15SS136	CF15SS136	CF15SS136	CF15SS136	CF15SS136
SAMPLE NUMBER	CF15SS97012B	CF15SS13603A [02/04/97]	CF15SS13603B [02/06/97]	CF15SS13603C [02/21/97]	CF15SS13636A	CF15SS13636B	CF15SS13669A	CF15SS13669B
DEPTH	0-1	0-0.25	0-0.25	0-0.25	0.25-0.5	0.25-0.5	0.5-0.75	0.5-0.75
SAMPLE DATE	2/7/1997	2/4/1997	2/6/1997	2/21/1997	2/4/1997	2/6/1997	2/4/1997	2/6/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)								
LEAD	2150	6580	6090	5480	667	589	412	344
TCLP Inorganics (ug/L)								
LEAD	10500	22000	15700		1500	1000	1300	910

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS136	CF15SS136	CF15SS145	CF15SS145	CF15SS165	CF15SS165	CF15SS192	CF15SS192
SAMPLE NUMBER	CF15SS136912A	CF15SS136912B	CF15SS145012A	CF15SS145012B	CF15SS165012A	CF15SS165012B	CF15SS192012A [02/04/97]	CF15SS192012B [02/05/97]
DEPTH	0.75-1	0.75-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	2/4/1997	2/6/1997	2/4/1997	2/5/1997	2/4/1997	2/7/1997	2/4/1997	2/5/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)								
LEAD	163	207	1680	894	2620	1800	42.7	32.6
TCLP Inorganics (ug/L)								
LEAD	700	560	7500	7300	7800	8800		

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS202	CF15SS202	CF15SS202	CF15SS202	CF15SS202	CF15SS202
SAMPLE NUMBER	CF15SS20203A [02/04/97]	CF15SS20203B [02/07/97]	CF15SS20236A [02/04/97]	CF15SS20236B [02/07/97]	CF15SS20269A [02/04/97]	CF15SS20269B [02/07/97]
DEPTH	0-0.25	0-0.25	0.25-0.5	0.25-0.5	0.5-0.75	0.5-0.75
SAMPLE DATE	2/4/1997	2/7/1997	2/4/1997	2/7/1997	2/4/1997	2/7/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)						
LEAD	60.4	35.7	11.3 U	10.2 U	10.9 U	10.2 U
TCLP Inorganics (ug/L)						
LEAD						

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS202	CF15SS202	CF15SS213	CF15SS213	CF15SS213	CF15SS213	CF15SS213	CF15SS213	CF15SS213
SAMPLE NUMBER	CF15SS202912A [02/04/97]	CF15SS202912B [02/05/97]	CF15SS21303A	CF15SS21303B	CF15SS21303C	CF15SS21336A	CF15SS21336B	CF15SS21369A	CF15SS21369B
DEPTH	0.75-1	0.75-1	0-0.25	0-0.25	0-0.25	0.25-0.5	0.25-0.5	0.5-0.75	0.5-0.75
SAMPLE DATE	2/4/1997	2/5/1997	2/4/1997	2/7/1997	2/21/1997	2/4/1997	2/7/1997	2/4/1997	2/7/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)									
LEAD	10.8 U	10.2 U	59600	6020	3050	1800	1500	920	815
TCLP Inorganics (ug/L)									
LEAD			25900	21500		29400	16400	12100	10200

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS213	CF15SS213	CF15SS218	CF15SS218	CF15SS218	CF15SS218	CF15SS218	CF15SS218	CF15SS285	CF15SS285
SAMPLE NUMBER	CF15SS213912A	CF15SS213912B	CF15SS21803A	CF15SS21836A	CF15SS21836B	CF15SS21869A	CF15SS21869B	CF15SS21869C	CF15SS28503A	CF15SS28503B
DEPTH	0.75-1	0.75-1	0-0.25	0.25-0.5	0.25-0.5	0.5-0.75	0.5-0.75	0.5-0.75	0-0.25	0-0.25
SAMPLE DATE	2/4/1997	2/7/1997	2/4/1997	2/4/1997	2/7/1997	2/4/1997	2/6/1997	2/20/1997	2/4/1997	2/6/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)										
LEAD	335	287	18300	21800	16300	5440	4820	2850	15600	12000
TCLP Inorganics (ug/L)										
LEAD	3800	4000	4500	19100	17800	8300	8200		22700	22800

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS285	CF15SS285	CF15SS285	CF15SS285	CF15SS285	CF15SS285	CF15SS285	CF15SS285
SAMPLE NUMBER	CF15SS28503C [02/21/97]	CF15SS28536A	CF15SS28536B	CF15SS28536C [02/21/97]	CF15SS28569A	CF15SS28569B	CF15SS285912A	CF15SS285912B
DEPTH	0-0.25	0.25-0.5	0.25-0.5	0.25-0.5	0.5-0.75	0.5-0.75	0.75-1	0.75-1
SAMPLE DATE	2/21/1997	2/4/1997	2/6/1997	2/21/1997	2/4/1997	2/7/1997	2/4/1997	2/6/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)								
LEAD	9570	4450	3890	2830	684	577	947	867
TCLP Inorganics (ug/L)								
LEAD		7100	7800		590	670	2700	3000

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS287	CF15SS287	CF15SS287	CF15SS287	CF15SS301	CF15SS301	CF15SS301
SAMPLE NUMBER	CF15SS287012A	CF15SS287012B	CF15SS287012C [02/24/97]	CF15SS287012D [02/24/97]	CF15SS301012A	CF15SS301012B	CF15SS301012C [02/24/97]
DEPTH	0-1	0-1	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	2/4/1997	2/7/1997	2/24/1997	2/24/1997	2/4/1997	2/6/1997	2/24/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)							
LEAD	7370	5700	1710	3600	3170	2630	3040
TCLP Inorganics (ug/L)							
LEAD	32200	24400			2700	4800	

APPENDIX C-6.2

SIEVE AND LEAD SOIL ANALYTIC RESULTS (FEBRUARY 1997)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CF15SS332	CF15SS332	CF15SS378	CF15SS378
SAMPLE NUMBER	CF15SS332012A	CF15SS332012B	CF15SS378012A	CF15SS378012B
DEPTH	0-1	0-1	0-1	0-1
SAMPLE DATE	2/4/1997	2/6/1997	2/4/1997	2/7/1997
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
Inorganics (mg/kg)				
LEAD	1360	939	682	450
TCLP Inorganics (ug/L)				
LEAD	2200	2400	1000	1300

E-6.3: SPLP SOIL ANALYTICAL RESULTS

APPENDIX C-6.3

SPLP SOIL ANALYTIC RESULTS (FEBRUARY 2000)
SITE 15 FEASIBILITY STUDY REPORT
NAVAL AIR STATION CECIL FIELD, JACKSONVILLE, FLORIDA

LOCATION	CEF-015-SS-560	CF15SS054	CF15SS060	CF15SS060	CF15SS127
SAMPLE NUMBER	CEF-15-SS-701-01	CEF-15-SS-702-01	CEF-15-SS-703-01	CEF-15-SS-703-01-D	CEF-15-SS-704-01
DEPTH	0-1	0-1	0-1	0-1	0-1
SAMPLE DATE	2/17/2000	2/17/2000	2/17/2000	2/17/2000	2/17/2000
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL
Semivolatile Organics (ug/kg)					
1-METHYLNAPHTHALENE	410	168000	94300 J	53200 J	13500
2-METHYLNAPHTHALENE	417	204000	108000 J	61800 J	14100
ACENAPHTHENE	723	162000	90800	64700	11500
ACENAPHTHYLENE	99 U	17000	16000 J	6420 J	2370
ANTHRACENE	110	63200	31100	18800	3120
BENZO(A)ANTHRACENE	796	193000	129000 J	71600 J	22200
BENZO(A)PYRENE	857	120000	89600	67600	23100
BENZO(B)FLUORANTHENE	904	130000	96800	62600	24100
BENZO(G,H,I)PERYLENE	462	4260	22000	15100	7160
BENZO(K)FLUORANTHENE	147	63000	45000	29300	10200
CHRYSENE	797	155000	123000 J	62200 J	24500
DIBENZO(A,H)ANTHRACENE	27.1	6520	6580	5010	1830
FLUORANTHENE	2240	505000	312000 J	173000 J	48400
FLUORENE	99 U	15000	9910 J	2560 J	1400 U
INDENO(1,2,3-CD)PYRENE	970	42500	38400	29500	12600
NAPHTHALENE	99 U	12200	7040 J	4090 J	1930
PHENANTHRENE	516	155000	102000 J	47900 J	11200
PYRENE	1080	319000	207000 J	109000 J	35100
SPLP Semivolatiles (ug/L)					
1-METHYLNAPHTHALENE		1	1 U	1 U	1.5
2-METHYLNAPHTHALENE		2.2	1.7	1.6	1 U
ACENAPHTHENE		2.3	1.2	1.5	1 U
ACENAPHTHYLENE		1 U	1 U	1 U	1 U
ANTHRACENE		1.1	1 U	1 U	1 U
BENZO(A)ANTHRACENE		1.3	0.63	0.69	0.21 U
BENZO(A)PYRENE		1.8	0.8 J	0.58 J	0.21 U
BENZO(B)FLUORANTHENE		2	0.89	0.91	0.21 U
BENZO(G,H,I)PERYLENE		1.4	0.8	0.68	0.21 U
BENZO(K)FLUORANTHENE		0.73	0.34	0.38	0.21 U
CHRYSENE		1.8	0.93	0.93	0.21
DIBENZO(A,H)ANTHRACENE		0.21 U	0.2 U	0.2 U	0.21 U
FLUORANTHENE		5.9	4.6	5	1
FLUORENE		1 U	1 U	1 U	1 U
INDENO(1,2,3-CD)PYRENE		1.3	0.65	0.66	0.21 U
NAPHTHALENE		2	1 U	1 U	1.4
PHENANTHRENE		5.8	2.3	2.6	1 U
PYRENE		5	2.5	2.6	0.6

APPENDIX F

PRG DEVELOPMENT FOR HUMAN HEALTH

F.1 SCTL DEVELOPMENT FOR COPCs

F.2 95% CALCULATION FOR ADULT EXPOSURE TO LEAD

F.3 UNIVERSITY OF FLORIDA LETTER REGARDING ACUTE TOXICITY FOR LEAD

F.1 SCTL DEVELOPMENT FOR COPCs

Development of SCTL for Arsenic

SCTL = [(TR) (BW) (AT)] / { (EF) (ED) (FC) [((SFo) (IRo) (10E-06 kg/mg)) + ((SFd) (SA) (AF) (DA) (10E-06 kg/mg)) + ((SFi) (IRi) (1/VF + 1/PEF))] }

TR	1.00E-06		Target Risk	FDEP target
BW	35	kg	Body weight	ADULT RECREATIONAL USER
AT	25550	d	Averaging time	DEFAULT
EF	50	d	Exposure frequency	1 day/wk; 50 wks/yr compromise from cattle dip vat program
ED	20	y	Exposure duration	compromise from cattle dip vat program
FC	1		Fraction from source	fraction from contaminated source
IRo	50	mg/day	Ingestion rate	default worker state
SA	3000	cm2	Surface area	default worker state (compromise value)
AF	0.07	mg/cm2	Adherance factor	adult residential EPA dermal guidance (1997)
IRI	15	m3/day	Inhalation rate	default worker state

SFO	1.5		Oral cancer slope factor	
SFD	1.579		Dermal cancer slope factor	FDEP GI absorption factor of 0.5
DA	0.001		Dermal absorption factor	
SFI	15		Inhalation cancer slope factor	
VF			Volatilization factor	
PEF	1.24E+09		Particulate emission factor	

A	0.00089425		GENERAL TERM	[(TR)(BW)(AT)] / [(EF)(ED)(FC)]
B	0.000075		ORAL TERM	(SFo)(IRo)(1E-06)
C	3.3159E-07		DERMAL TERM	(SFd)(SA)(AF)(DA)(1E-06)
D	0.00E+00		INHALATION TERM	(SFi)(IRi)(1/VF + 1/PEF)

SCTL **1.19E+01 mg/kg** A / (B + C + D)

1.19E+04 ug/kg

Development of SCTL for Antimony

SCTL = [(THI) (BW) (AT)] / { (EF) (ED) (FC) [((1/RfDo) (IRo) (10E-06 kg/mg)) + ((1/RfDd) (SA) (AF) (DA) (10E-06 kg/mg)) + ((1/RfDI) (IRi) (1/VF + 1/PEF))] }

THI	1.00E+00		Target Risk	FDEP target
BW	35	kg	Body weight	ADULT RECREATIONAL USER
AT	7300	d	Averaging time	DEFAULT
EF	50	d	Exposure frequency	1 day/wk; 50 wks/yr compromise from cattle dip vat program
ED	20	y	Exposure duration	compromise from cattle dip vat program
FC	1		Fraction from source	fraction from contaminated source
IRo	50	mg/day	Ingestion rate	default worker state
SA	3000	cm2	Surface area	default worker state (compromise value)
AF	0.07	mg/cm2	Adherance factor	adult residential EPA dermal guidance (1997)
IRI	15	m3/day	Inhalation rate	default worker state

RfDo	0.0004		Oral reference dose	
RfDd	0.000004		Dermal reference dose	
DA	0.001		Dermal absorption factor	
RfDi	0.000004		Inhalation reference dose	
VF			Volatilization factor	
PEF	1.24E+09		Particulate emission factor	

A	255.5		GENERAL TERM	[(THI)(BW)(AT)] / [(EF)(ED)(FC)]
B	0.125		ORAL TERM	(1/RfDo)(IRo)(1E-06)
C	0.0525		DERMAL TERM	(1/RfDd)(SA)(AF)(DA)(1E-06)
D	0.00E+00		INHALATION TERM	(1/RfDi)(IRi)(1/VF + 1/PEF)

SCTL **1.44E+03 mg/kg** A / (B + C + D)

1.44E+06 ug/kg

Development of SCTL for 1-Methylnaphthalene

SCTL = [(THI) (BW) (AT)] / { (EF) (ED) (FC) [((1/RfDo) (IRo) (10E-06 kg/mg)) + ((1/RfDd) (SA) (AF) (DA) (10E-06 kg/mg)) + ((1/RfDi) (IRi) (1/VF + 1/PEF))] }

THI	1.00E+00		Target Risk	FDEP target
BW	35	kg	Body weight	ADULT RECREATIONAL USER
AT	7300	d	Averaging time	DEFAULT
EF	50	d	Exposure frequency	1 day/wk; 50 wks/yr compromise from cattle dip vat program
ED	20	y	Exposure duration	compromise from cattle dip vat program
FC	1		Fraction from source	fraction from contaminated source
IRo	50	mg/day	Ingestion rate	default worker state
SA	3000	cm2	Surface area	default worker state (compromise value)
AF	0.07	mg/cm2	Adherance factor	adult residential EPA dermal guidance (1997)
IRI	15	m3/day	Inhalation rate	default worker state

RfDo	0.02		Oral reference dose	
RfDd	0.02		Dermal reference dose	
DA	0.01		Dermal absorption factor	
RfDi	8.57E-04		Inhalation reference dose	
VF	1.19E+05		Volatilization factor	
PEF	1.24E+09		Particulate emission factor	

A	255.5		GENERAL TERM	[(THI)(BW)(AT)] / [(EF)(ED)(FC)]
B	0.0025		ORAL TERM	(1/RfDo)(IRo)(1E-06)
C	0.000105		DERMAL TERM	(1/RfDd)(SA)(AF)(DA)(1E-06)
D	1.47E-01		INHALATION TERM	(1/RfDi)(IRi)(1/VF + 1/PEF)

SCTL 1.71E+03 mg/kg A / (B + C + D)

1.71E+06 ug/kg

Development of SCTL for 2-Methylnaphthalene

SCTL = [(THI) (BW) (AT)] / { (EF) (ED) (FC) [((1/RfDo) (IRo) (10E-06 kg/mg)) + ((1/RfDd) (SA) (AF) (DA) (10E-06 kg/mg)) + ((1/RfDi) (IRi) (1/VF + 1/PEF))] }

THI	1.00E+00		Target Risk	FDEP target
BW	35	kg	Body weight	ADULT RECREATIONAL USER
AT	7300	d	Averaging time	DEFAULT
EF	50	d	Exposure frequency	1 day/wk; 50 wks/yr compromise from cattle dip vat program
ED	20	y	Exposure duration	compromise from cattle dip vat program
FC	1		Fraction from source	fraction from contaminated source
IRo	50	mg/day	Ingestion rate	default worker state
SA	3000	cm2	Surface area	default worker state (compromise value)
AF	0.07	mg/cm2	Adherance factor	adult residential EPA dermal guidance (1997)
IRI	15	m3/day	Inhalation rate	default worker state

RfDo	0.02		Oral reference dose	
RfDd	0.02		Dermal reference dose	
DA	0.01		Dermal absorption factor	
RfDi	8.57E-04		Inhalation reference dose	
VF	1.42E+05		Volatilization factor	
PEF	1.24E+09		Particulate emission factor	

A	255.5		GENERAL TERM	[(THI)(BW)(AT)] / [(EF)(ED)(FC)]
B	0.0025		ORAL TERM	(1/RfDo)(IRo)(1E-06)
C	0.000105		DERMAL TERM	(1/RfDd)(SA)(AF)(DA)(1E-06)
D	1.24E-01		INHALATION TERM	(1/RfDi)(IRi)(1/VF + 1/PEF)

SCTL 2.03E+03 mg/kg A / (B + C + D)

2.03E+06 ug/kg

Development of SCTL for TPH

SCTL = [(THI) (BW) (AT)] / { (EF) (ED) (FC) [((1/RfDo) (IRo) (10E-06 kg/mg)) + ((1/RfDd) (SA) (AF) (DA) (10E-06 kg/mg)) + ((1/RfDi) (IRi) (1/VF + 1/PEF))] }

THI	1.00E+00		Target Risk	FDEP target
BW	35	kg	Body weight	ADULT RECREATIONAL USER
AT	7300	d	Averaging time	DEFAULT
EF	50	d	Exposure frequency	1 day/wk; 50 wks/yr compromise from cattle dip vat program
ED	20	y	Exposure duration	compromise from cattle dip vat program
FC	1		Fraction from source	fraction from contaminated source
IRo	50	mg/day	Ingestion rate	default worker state
SA	3000	cm2	Surface area	default worker state (compromise value)
AF	0.07	mg/cm2	Adherance factor	adult residential EPA dermal guidance (1997)
IRI	15	m3/day	Inhalation rate	default worker state

RfDo	0.04		Oral reference dose	
RfDd	0.2		Dermal reference dose	
DA	0.01		Dermal absorption factor	
RfDi	5.71E-02		Inhalation reference dose	
VF	9.57E+03		Volatilization factor	
PEF	1.24E+09		Particulate emission factor	

A	255.5		GENERAL TERM	[(THI)(BW)(AT)] / [(EF)(ED)(FC)]
B	0.00125		ORAL TERM	(1/RfDo)(IRo)(1E-06)
C	0.0000105		DERMAL TERM	(1/RfDd)(SA)(AF)(DA)(1E-06)
D	2.74E-02		INHALATION TERM	(1/RfDi)(IRi)(1/VF + 1/PEF)

SCTL **8.90E+03 mg/kg** A / (B + C + D)

8.90E+06 ug/kg

Development of SCTL for Carcinogenic PAHs (BaPEq)

SCTL = [(TR) (BW) (AT)] / { (EF) (ED) (FC) [((SFo) (IRo) (10E-06 kg/mg)) + ((SFd) (SA) (AF) (DA) (10E-06 kg/mg)) + ((SFi) (IRi) (1/VF + 1/PE

TR	1.00E-06		Target Risk	FDEP target
BW	35	kg	Body weight	ADULT RECREATIONAL USER
AT	25550	d	Averaging time	DEFAULT
EF	50	d	Exposure frequency	1 day/wk; 50 wks/yr compromise from cattle dip vat program
ED	20	y	Exposure duration	compromise from cattle dip vat program
FC	1		Fraction from source	fraction from contaminated source
IRo	50	mg/day	Ingestion rate	default worker state
SA	3000	cm2	Surface area	default worker state (compromise value)
AF	0.07	mg/cm2	Adherance factor	adult residential EPA dermal guidance (1997)
IRI	15	m3/day	Inhalation rate	default worker state

SFO	7.3		Oral cancer slope factor	
SFD	14.6		Dermal cancer slope factor	FDEP GI absorption factor of 0.5
DA	0.01		Dermal absorption factor	
SFI	3.1		Inhalation cancer slope factor	
VF	2.96E+07		Volatilization factor	
PEF	1.24E+09		Particulate emission factor	

A	0.00089425		GENERAL TERM	[(TR)(BW)(AT)] / [(EF)(ED)(FC)]
B	0.000365		ORAL TERM	(SFo)(IRo)(1E-06)
C	0.00003066		DERMAL TERM	(SFd)(SA)(AF)(DA)(1E-06)
D	1.61E-06		INHALATION TERM	(SFi)(IRi)(1/VF + 1/PEF)

SCTL **2.25E+00 mg/kg** A / (B + C + D)

2.25E+03 ug/kg

F.2 95% CALCULATION FOR ADULT EXPOSURE TO LEAD

Calculations of 95th Percentile Fetal Blood Lead Concentrations for Adult Exposure to Soil

SITE NAME: **NAS CECIL FIELD**
LOCATION: **SITE 15**
RECEPTOR: **RECREATIONAL EXPOSURE**
DATE: **JUNE 6, 2001**

OBJECTIVE: Adult exposure to lead in soil is addressed by an evaluation of the relationship between the site soil lead concentration and the blood lead concentration in the developing fetuses of adult women. This spreadsheet calculates a range of 95th percentile fetal blood lead concentrations from central estimates of blood lead concentrations in pregnant adult women using the exposure parameters identified below (U.S. EPA, Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil, December 1996).

RELEVANT EQUATIONS:

$$PbB_{fetal,\,GM} = R_{fetal/maternal} \times [PbB_{adult,\,0} + (PbS \times BKSF \times IR_s \times AF_s \times EF_s)/AT]$$

and

$$PbB_{fetal,\,0.95} = PbB_{fetal,\,GM} \times GSD_{i,\,adult}^{1.645}$$

Exposure Parameter	Description (units)	GSD_i = 1.8 - 2.1; $PbB_{adult,\,0}$ = 1.7 - 2.2			
		Adult 1	Adult 2	Adult 3	Adult 4
$PbB_{adult,\,0}$	Typical blood lead concentration in adult women of child-bearing age in absence of site exposures (ug/dL)	1.7	1.7	2.2	2.2
PbS	Site-specific soil lead concentration (mg/kg)	1157	1157	1157	1157
BKSF	Biokinetic slope factor (ug/dL per ug/day))	0.4	0.4	0.4	0.4
IR_s	Intake rate of soil, includes outdoor soil and indoor soil-derived dust (g/day)	0.050	0.050	0.050	0.050
AF_s	Absolute gastrointestinal absorption fraction (unitless)	0.12	0.12	0.12	0.12
EF_s	Exposure frequency (days/year)	50	50	50	50
AT	Averaging time (days/year)	365	365	365	365
$GSD_{i,\,adult}$	Estimate of individual geometric standard deviation among adults (unitless)	1.8	2.1	1.8	2.1
$R_{fetal/maternal}$	Constant of proportionality between fetal blood lead concentraiton at birth and maternal blood lead concentration (unitless)	0.9	0.9	0.9	0.9
$PbB_{adult,\,central}$	Calculated central estimate of blood lead concentrations in adult women of child-bearing age from site exposures (ug/dL)	2.08	2.08	2.58	2.58
$PbB_{fetal,\,GM}$	Central estimate of blood lead concentration (ug/dL) for fetuses carried by women who have site exposures to soil lead at concentration, PbS.	1.87	1.87	2.32	2.32
	Probability that PbB_{fetal} exceeds 10 ug/dL	0.22%	1.20%	0.65%	2.45%
$PbB_{fetal,\,0.95}$	Calculated 95th percentile blood lead concentrations among fetuses born to women having site exposures (ug/dL)	4.92	6.35	6.11	7.87
RBRG	Lead soil concentration corresponding to a 95th percentile 10 ug/dL lead blood level in a fetus (mg/kg)	7680	4802	6160	3281

Note: According to the cited guidance document, this adult exposure model is not applicable for infrequent site exposures, where the EF_s is less than 1 day/week.

F.3 UNIVERSITY OF FLORIDA LETTER REGARDING ACUTE TOXICITY FOR LEAD

UNIVERSITY OF FLORIDA

Center for Environmental & Human Toxicology

P.O. Box 110885
Gainesville, Florida 32611-0885
Tel.: (352) 392-4700, ext. 5500
Fax: (352) 392-4707

December 2, 2002

Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399

Dear Ms. Mora-Applegate:

In the context of assessing potential risks to human health from lead in soils at Site 15, Cecil Field, the question arose as to what constitutes an acceptable soil lead concentration limit based on acute contact by a small child. This question is important because it may define the effective not-to-exceed value for lead in areas where small children might come in contact with soil. We conducted an analysis to determine the upper limit for lead concentration in soil such that acute exposure, in the form of a soil pica episode [single dose], would not result in a blood lead concentration associated with acute lead toxicity in children. This analysis was conducted in collaboration with Dr. Joel Pounds of Battelle Northwest Laboratories and Dr. Ted Simon of U.S. EPA Region 4. The details of that analysis have been provided to you previously. We intend to publish this analysis in a peer-reviewed journal, but this will take several months. In the meantime, so as not to further delay management decisions concerning Site 15, we would like to convey to you that the results indicate protection from acute exposure of children at a soil lead concentration of 6,500 mg/kg or less.

If you have any questions regarding this analysis or its implications in terms of risk strategies at Site 15, Cecil Field, we would be happy to provide additional information.

Sincerely,

Stephen M. Roberts, Ph.D.

Bernard K. Gadagbui, Ph.D.

A Soil Concentration Limit for Lead Based on Risk from Acute Exposure for a Small Child

Bernard K.-M. Gadagbui[1], Joel G. Pounds[2], Ted S. Simon[3], and Stephen M. Roberts[1]

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December, 2002

INTRODUCTION

Lead is a common contaminant of soils in both industrial and residential settings. Historical use of lead in gasoline has resulted in elevated soil concentrations near roadways, and very high concentrations of lead may remain in soils and slag near smelter operations and in tailings from mining operations (Eckel et al., 2002). Improper disposal of lead-containing waste, such as incinerator ash and lead battery cores, have created hazards at numerous waste sites in the U.S. Prior to 1978, lead comprised as much as 50% of some house paints. The weathering,

chipping, and peeling of lead-based paints are an important source of lead contamination of soils in residential settings, and this remains an important source of lead exposure for children in many urban areas (CDC, 1997).

Children are particularly vulnerable to lead contamination in soil for several reasons. Small children tend to have a much higher soil incidental ingestion rate of soils than adults, due to extensive contact with soil while at play and frequent mouthing behavior (Stanek et al., 1998). Thus, intake of lead [and other contaminants] by ingestion from soil is generally higher on an absolute basis in small children than in older children or adults. On a per unit body weight basis, the differences in lead dose from soil are even larger due to the smaller body weight of young children. The gastrointestinal absorption of lead is greater in children than adults (Ziegler et al., 1978; Alexander et al., 1974), further accentuating the differences in effective lead dose resulting from exposure to soil lead contamination. Finally, the developing nervous systems of children appear to be especially sensitive to neurotoxic effects of lead (Schwartz, 1994).

To develop concentration limits for lead in soil protective for small children, the U.S. Environmental Protection Agency (EPA) uses a probabilistic model to predict blood lead concentrations in children exposed to lead in soil at a specified concentration — the Integrated Exposure Uptake Biokinetic (IEUBK) Model (EPA, 1994a). With this model, a soil lead concentration limit can be derived such that a target blood lead concentration is not exceeded. Because the model is probabilistic and accounts for variability in lead toxicokinetics among individuals, the output is a distribution of blood lead concentrations that would arise in a population of children exposed to lead in soil at a specified concentration. Currently, the target blood lead concentration is $\leq$ 10 μg/dL to prevent neurobehavioral effects, per Centers for Disease Control and Prevention (CDC) recommendation (CDC, 1991). Typically, a soil concentration limit is selected such that only a small percentage (e.g., $\leq$ 5%) of exposed children would be predicted to have a blood concentration above this value (EPA, 1994b).

The IEUBK model and soil lead concentration limits derived from it are based on chronic exposure. As a regulatory tool, limits based on chronic exposure are appropriate in that the vast majority of situations in which risks to children from soil lead contamination are contemplated involve at least the potential for repeated contact. There are some circumstances, however, where consideration of risks from acute exposure to soil is warranted. For example, an acute exposure scenario could be relevant for a park or recreational area where an individual child might play, but only on one or a few occasions.

A soil lead concentration limit based on acute exposure can also be useful for sites where chronic exposure is anticipated. Soil concentration limits based on chronic exposure are often compared with the average contaminant concentration over the exposure area, since this is thought to best offer the best representation of the concentration to which an individual is exposed over time. In this situation, soils with concentrations above the limit are allowed to remain in place in some areas as long as other areas contacted by the child have offsetting lower concentrations. An acute exposure limit, used as a not-to-exceed value for all areas of the site, would help to insure that even a single exposure event with soils above the chronic exposure limit is safe.

Developing an acute exposure limit for lead in soils is more complicated than simply adjusting the exposure frequency assumptions in the IEUBK model. First, it is important to recognize that the amount of soil ingested acutely by a small child can be substantially different from the average daily incidental soil ingestion rate used to assess chronic intake. Unfortunately, there is little documentation of the frequency of these soil pica events or the amounts of soil ingested. Using data from their soil ingestion studies in children, Stanek and Calabrese (1995) estimated that 42% of small children ingest > 5 g of soil on one or two days a year, and 33% ingest > 10 g. These occasional soil doses are up to 70-fold or more higher than the default average daily soil ingestion rate assumption currently recommended for use with the IEUBK model (135 mg soil per day; EPA, 1994a). Second, the target blood lead concentration limit for chronic exposure (10 μg/dL) may not be applicable for acute exposure because it is based on neurobehavioral effects in chronically exposed individuals. The deficits observed in studies of these individuals likely require more than transient elevations in blood lead, as would occur with an acute lead dose. An assessment of the consequences of acute exposure requires endpoints relevant specifically to acute toxicity. Third, the computer model used to predict blood concentrations resulting from exposure to lead in soils must be capable of simulating a single acute dose. Many of the models currently available, including the IEUBK, do not provide this capability.

We report here the results of an analysis to develop a risk-based soil concentration limit for lead protective of small children for situations of acute exposure. For the purposes of this analysis, an acute exposure was defined as ingestion of soil containing lead on a single occasion. In order to produce a soil concentration limit that is broadly protective, the circumstance regarded as most likely to result in the highest soil lead dose was addressed — a soil pica episode by a small (2-year old) child. The overall approach was as follows. Clinical information regarding acute lead poisoning in children was assessed, and a blood lead concentration limit was selected. From the blood lead concentration limit, a corresponding dose limit from soil was calculated using biokinetic modeling. The dose limit was the dose from soil producing a peak blood lead concentration equal to the blood lead concentration limit. Finally, a soil lead concentration limit was calculated from the soil dose limit with an assumption regarding the volume of soil ingested during a pica episode.

SELECTION OF A BLOOD LEAD CONCENTRATION LIMIT

The clinical literature contains numerous reports of lead poisoning in children, and from these a reasonably complete picture of the signs and symptoms of acute lead intoxication can be obtained. The most serious manifestation of acute lead toxicity in children is acute encephalopathy. Signs and symptoms of acute encephalopathy include apathy, bizarre behavior, frequent and persistent vomiting, loss of coordination, intractable seizures, and coma. Acute encephalopathy is usually associated with blood lead concentrations over 100 μg/dL, although it has been observed with blood lead concentrations as low as 70 μg/dL (Piomelli et al., 1984). Peripheral neuropathy, common in lead poisoning in adults, is rare in children. Gastrointestinal effects such as colic - characterized by abdominal pain, constipation, cramps, nausea, vomiting, anorexia, and weight loss - have been observed as one of the early symptoms in acute exposures at blood lead concentrations of ≥ 60 μg/dL in children and adults (ATSDR 1999; NAS 1972). Acute lead intoxication can also produce renal effects, including a Fanconi-like syndrome, a triad

of hypophosphatemia, aminoaciduria, and glycosuria (Chisholm, 1962). While nephropathy can occur as a consequence of acute lead toxicity in children, it is more common in adult lead poisoning, and is typically found in workers with blood lead concentrations > 60 μg/dL (Henretig, 2002).

Lead produces anemia, both through an inhibition of hemoglobin synthesis and diminished erythrocyte survival (Henretig, 2002). Lead impairs hemoglobin synthesis by interfering with the critical phases of the dehydration of aminolevulinic acid (catalyzed by the cytosolic enzyme, δ-aminolevulinic acid dehydratase, ALAD) and the incorporation of iron into the protoporphyrin molecule. Although effects on ALAD activity can be detected at low blood lead concentrations (> 10 μg/dL), the clinical manifestation of anemia in children is associated with much higher concentrations, ca. > 80 μg/dL.

The CDC has defined a blood lead concentration of > 10 μg/dL in children as an intervention level. This definition is based on evidence that blood lead concentrations above 10 μg/dL are associated with neurobehavioral effects and deficits in cognitive performance. There are no data to indicate how long a blood lead concentration must be elevated for these effects to occur, but the studies showing subtle neurological effects of lead in children used populations that likely had repeated exposures (such as to lead-containing paint chips, house dust, or soil). As a result, the 10 μg/dL blood lead concentration as a threshold for concern is based on a persistent elevation, rather than a transient spike in blood lead as would be expected from an acute lead dose. The endpoint — subtle neurological deficits — is relevant to acute exposure, and these effects may occur as sequelae to a severe, acute intoxication episode. However, the use of 10 μg/dL as a blood concentration limit to protect against this effect from a single *acute* lead exposure is arguably not appropriate.

Most cases of acute symptomatic lead poisoning in children are associated with blood lead concentrations greater than 100 μg/dL (NAS, 1972). The EPA has identified a 60-100 μg/dL lead in blood as a lowest observable adverse effect level (LOAEL) for acute toxicity in children (EPA, 1986), and from the discussion above, clinical signs and symptoms of lead poisoning are associated with concentrations at or above 60 μg/dL. For the purposes of this analysis, a concentration of 60 μg/dL was selected as the target limit for the peak blood lead concentration after an ingested soil dose.

BIOKINETIC MODELING

Assessment of the hazards associated with lead in environmental media is unusual in that assessment is based on blood lead concentration as the toxicological endpoint. In some situations, empirical measurements of blood lead concentration are available for the exposed population, and the assessment of hazard is relatively straightforward. More often, however, blood lead concentrations must be modeled for exposed populations, as well as for populations that might become exposed in the future. Several PBPK or biokinetic models have been developed to predict blood lead concentrations resulting from environmental lead exposures (see EPA, 2001 for a review). Some of these models have the ability to evaluate intake of lead from a variety of sources, including ingestion of lead in food, water, and soil, and inhalation of lead in

particulates. The distribution of lead to various compartments in the body over time is considered with varying degrees of complexity among the models, but all have the ability to predict the blood concentration achieved with chronic exposure to lead under defined exposure circumstances.

Model selection

The IEUBK model used by the EPA has undergone extensive calibration and use and is judged to perform well in predicting blood lead concentration distributions for children 0 to 7 years of age. Although the model performs well in assessing chronic exposure, it is not capable, in its current configuration, of simulating blood lead concentrations arising from a single dose. This limitation makes the IEUBK model unsuitable for developing a soil lead concentration limit for acute exposure.

Other biokinetic models were evaluated as candidates for use in this analysis. The Rabinowitz model (Rabinowitz et al., 1976) is relatively simple and was developed to predict blood lead concentrations associated with long-term lead intake in adults. The Rabinowitz model is not scaled for children, which greatly limits its utility for this analysis. The same limitation applies to the Bert model (Bert et al., 1989), which is a more complex version of the Rabinowitz model. The California model (EPA, 2001) has been developed to predict blood lead concentrations from environmental exposure in both children and adults. However, like the IEUBK model, it is not capable of predicting the blood lead concentration profile resulting from a single dose. The Stern model (Stern, 1994) was developed to predict incremental changes in the steady-state blood lead concentration resulting from exposures to lead in soil, and therefore is useful only for situations of chronic lead exposure. The O'Flaherty model (O'Flaherty et al., 1995) is a true physiologically-based pharmacokinetic model. It is capable of simulating blood lead concentrations for ages 0 through adulthood, and for both short- and long-term exposures. There are indications that the model does not perform well when lead is ingested at very high concentrations (ATSDR, 1999), which could represent a problem when assessing acute exposures. Moreover, the C++ version does not allow the user to change the bioavailability from the default value.

The Leggett model (Leggett, 1993), developed by the Oak Ridge National Laboratories, is scaled for children and is capable of generating a blood concentration versus time profile for a single lead dose. Additionally, the Leggett model gives the user the option of simulating lead uptake by red blood cells as either a linear or non-linear process. These are features that many of the other models do not have. The model has been shown to perform well for a wide variety of exposure situations (EPA, 2001) and is the biokinetic core for the EPA's All-Ages Lead Model (AALM). From the comparison of model capabilities and attributes, the Leggett model was considered to be the most suitable for this acute exposure analysis.

Model inputs

Age-specific inputs for the Leggett model were chosen based on a 2-year old. This was considered to be the approximate age when a soil pica event while at play is most likely. The baseline blood lead concentration was assumed to be 4.1 μg/dL, which is the arithmetic mean

concentration for 1-2 year olds reported in the Third National Health and Nutritional Examination Survey, Phase 2 (NHANES III) (Pirkle et al., 1998). The default bioavailability assumptions for the Leggett model are age-specific, with 45 percent for birth to 1 year, and 30 percent for ages 1 to 5 years. Consequently, for a 2-year old, the default bioavailability factor would be 0.30. The EPA currently recommends a value of 0.30 (30%) for the absolute bioavailability of lead from soil for the IEUBK model (EPA, 1994a) when assessing chronic lead exposure. This assumption is derived in part from dietary absorption studies indicating that the absolute bioavailability of soluble lead from food and water in children is about 0.50 (50%; Alexander et al., 1974; Ziegler et al., 1978). Based on studies of the relative bioavailability of lead from soil versus water, an additional reduction factor of 0.6 is applied, leading to the combined absorption factor of 0.30 (i.e., 0.5 x 0.6 = 0.3). The potential applicability of this bioavailability factor (0.30) to an acute exposure scenario was evaluated as part of this analysis.

The gastrointestinal absorption of ingested lead is well documented to decrease with increasing lead dose. Aungst and Fung (1981) investigated lead absorption across the gut lumen *in vitro* in everted rat intestines and demonstrated that lead uptake involves two distinct processes: a passive diffusion process that is independent of gut concentration, and a capacity-limited active or facilitated diffusion process. At low lead concentrations, lead transport is effected almost exclusively through the active route. At higher concentrations, the lead transport mechanism becomes saturated, and the relative contribution of passive diffusion is increased. Passive diffusion of lead in the gut is poor, and as the contribution of passive diffusion increases, the fraction of ingested lead absorbed is diminished. This concentration-dependent uptake of lead from the gut may explain at least in part the non-linear relationship between lead intake and blood lead concentrations observed in children (Sherlock and Quinn, 1986; see below). It also indicates strongly the need to incorporate dose-dependent absorption when modeling blood lead concentrations from acute lead exposure.

Three studies were identified that provide information of potential value on the dose-dependent uptake of lead from the gut. Sherlock and Quinn (1986) conducted a duplicate diet study in which bottle-fed infants were exposed to lead in water and in formula mixed with contaminated water for one week in the 13th week after the infant's birth. Dietary lead intakes, believed to constitute almost all ingested lead, ranged from 0.04 to 3.4 mg/week. The authors observed a curvilinear relationship between the blood lead concentration and lead intake, with higher lead doses producing less-than-proportional increases in blood lead concentration. Reichlmayr-Lais et al (1988) investigated the effect of dietary lead intake on lead retention in adult rats. Rats were exposed to lead concentrations ranging from 0.02 to 800 μg lead per kg diet for 29 days. Absorption of lead, as inferred from lead retention, was similar for lead concentrations in diet up to 1 μg lead per kg feed, but was nearly 10-fold lower at higher dietary lead concentrations. In a study by Mallon (1983), lead absorption was examined in infant and juvenile baboons. Infant (6-7 months of age; 3 kg average body weight) baboons were administered lead acetate in gelatin capsules at doses of 100, 200, or 1000 μg lead per kg body weight per day for 4.6 – 6 months. Juvenile baboons (22-23 months of age; 5 kg body weight) received doses of 100 or 500 μg per kg body weight per day for 3.5 – 6 months. Controls received no lead acetate, and their only lead intake was 12 μg lead per kg body weight per day from standard diet. As the daily lead dose increased from 12 to 1000 μg/kg for the infant

baboons, and from 12 to 500 μg/kg for the juvenile animals, the fraction of the lead dose absorbed decreased from 0.24 to 0.02 in infants and from 0.12 to 0.01 in juvenile animals.

For the IEUBK model, the EPA used data from the Sherlock and Quinn study to address the dose-related bioavailability of lead (see EPA, 1994a). Total lead uptake from the gut was treated as the sum of saturable and non-saturable components. The data were fit to a nonlinear regression model in a form comparable to the Michaelis-Menten equation used to describe the *in vitro* results observed by Aungst and Fung (1981):

$$PbB = \frac{B + A \times Pb_{intake} + P \times Pb_{intake}}{(1 + Pb_{intake}/M)}$$

where:

B is the baseline blood lead concentration (10.85 μg/dL was used)

A and P are coefficients describing, respectively, nonlinear (active) and linear (passive) lead intake, between PbB and dietary lead intake; and

M is the Michaelis-Menten type (nonlinearity) parameter — the daily dietary intake rate at which the facilitated component of lead uptake is half saturated (Gary Diamond, personal communication).

Intake data from infant and juvenile baboons in the Mallon study were also fit to a similar model. Based on a goodness-of-fit comparison for these data sets, the EPA selected the Sherlock and Quinn data to represent the nonlinear absorption of lead in children, with the Mallon study cited as providing supporting data. From the Sherlock and Quinn data, the lead intake at which absorption is greatly reduced was estimated to be 90 μg/day.

We also evaluated the Sherlock and Quinn data to determine their suitability for use in defining the bioavailability of ingested lead. Lead uptake curves from this study were approximated by extracting the blood lead concentration versus weekly lead intake rate for the grouped data [from Figure 2 of Sherlock and Quinn, 1986] to SlideWrite v.5, and converting the dose to μg/day. The blood lead concentration versus lead intake data were then fit to the nonlinear regression model used by the EPA (see equation above). The data fit the Michaelis-Menten type equation well (Figure 1; r^2=0.98), as observed by the EPA, although the fit statistics revealed large standard errors for the estimated parameters A and P. The large errors for the parameter estimates are due to the availability of only seven data points to estimate three parameters (A, P, and M). Although this equation was a good fit to the observed data (Fig. 2), extrapolation to much higher doses (up to 5000 μg/day) did not produce plausible increases in blood lead concentration. Because the dose-blood concentration relationship produced implausible results at lead doses relevant to acute lead exposure, the use of these data and this equation was rejected. This data set was also fit to several empirical nonlinear equations with similar poor extrapolation to high doses (not shown).

The data from infant and juvenile baboons by Mallon (1983) were also evaluated. Although not obtained in humans, these data were derived in a primate at a relevant age. There is a close resemblance between hematological, blood lead responses, and patterns of lead

distribution and retention in baboons and humans (Mallon, 1983). This data set has the advantage of direct measurement of lead absorption, rather than indirect measurements, e.g. blood lead concentration, from which absorption must be inferred, as with the Sherlock and Quinn study. Additionally, the Mallon study utilized higher doses, extending the range over which dose-dependent absorption information is provided. Lead uptake data from the Mallon study were fit to nonlinear, exponential, and power function equations (Figure 3). The three equations fit the observed data reasonably well, with $r^2>0.98$. However, the extrapolated bioavailability at higher lead doses were markedly different (Figure 4). The power function model predicted negligible uptake of lead above doses of approximately 15,000 μg/day. The nonlinear and exponential models predicted a fairly constant uptake of approximately 1 and 3 percent, respectively, for lead doses up to 80,000 μg/day.

While all treatments of the Sherlock and Quinn and Mallon data predicted low uptake of lead at high doses, there is considerable uncertainty in establishing the precise value at intakes well beyond the observed data. From the two data sets, uptakes ranging from essentially zero to 3% were obtained for lead doses greater than about 10,000 μg/day. While these differences are small, it is important to recognize that blood lead concentrations are a function of [1- uptake]. As a consequence, the difference between choosing 0.5% and 3% uptake is a 6-fold difference in the predicted blood lead concentration. That difference is a considerable margin of uncertainty. As a practical measure, we chose not to extrapolate beyond the observation range, and selected for modeling the uptake value from the highest dose tested in the Mallon study — 0.02 (2%). This uptake represents a conservative choice in that the actual uptake of lead is likely to be lower at lead doses of interest for acute exposure.

A second issue regarding bioavailability is the extent to which absorption of ingested lead is diminished when it is present in soil rather than in the form of soluble lead as in the Sherlock and Quinn and Mallon studies. The relative bioavailability of lead from soil as compared with water has been measured for several soil samples from hazardous waste sites using the swine model (Ruby et al. 1999). Among these samples, the relative bioavailability was found to vary from less than 0.10 to 0.90). The EPA has chosen a value near the middle of this range, 0.60 (60%) as the default for the IEUBK model (EPA, 1994a). For the purpose of setting a soil concentration limit for acute exposure, an argument can be made for choosing a relative bioavailability value from the upper end of the range of observed values. For example, if a relative bioavailability of 0.60 is assumed, but the actual relative bioavailability of lead in a soil sample is 1.0, a soil lead concentration predicted to yield a peak blood lead concentration of 60 μg/dL (the blood lead limit chosen for this analysis) might actually result in a peak concentration of 100 μg/dL. As discussed in "Selection of a Blood Concentration Limit," the latter concentration is capable of producing clinical acute lead poisoning. In view of this small margin for error, a relative bioavailability of 1.0 was selected for the analysis; i.e., the bioavailability of lead in soil is the same as in water. It is acknowledged that other relative bioavailability values might be used to derive a soil concentration limit for acute exposure on a site-specific basis, provided that this information can be obtained with high confidence.

ESTIMATING THE SOIL CONCENTRATION LIMIT

Soil dose corresponding to the blood concentration limit

With the input assumptions described above, the soil dose producing a peak blood concentration at the specified limit (60 μg/dL) was determined through an iterative process. Simulations were performed assuming either linear or nonlinear partitioning of lead into erythrocytes. As shown in Figure 5, the 60 μg/dL blood concentration limit is reached with a soil dose of 74,500 μg of lead if non-linear partitioning to erythrocytes is assumed, and with a soil dose of 65,000 μg lead assuming linear partitioning.

Soil concentration limit

The amount of Pb ingested depends on the soil lead concentration and the amount of soil ingested. Data on the soil mass ingested during pica episodes are extremely limited. Vermeer and Frate (1979) found that the incidence of soil pica among children in a rural black community was 16 percent, and estimated the average amount of soil ingested to be 50 g/day. In a study by Calabrese et al. (1991), one child (among 64 examined) repeatedly ingested soil at rates ranging from 74 mg to 13.6 g/day over a two-week period. Wong (1988) found that six of 52 children studied exhibited soil pica behavior. Five of these children had normal mental capacity, and the amounts of soil ingested ranged from 0 to 10.3 g/day. One mentally retarded child ingested up to 60 g of soil per day. The EPA Child-Specific Exposure Factors Handbook (EPA, 2000) recommends a value of 10 g for soil pica. Using this value, the soil concentration corresponding to soil dose limit of 74,500 μg lead under conditions of nonlinear partitioning would be 7,450 mg/kg. The dose limit of 65,000 μg assuming linear partitioning would result from ingestion of 10 g of soil at a concentration of 6,500 mg/kg.

The biological mechanisms or processes underlying the nonlinear accumulation of lead in blood or red blood cells with increasing dose are not clear. While nonlinear partitioning is often assumed when predicting PbB concentrations from chronic exposure, its applicability to a single acute dose is uncertain. Given the choice between two soil lead concentration limits (7,500 mg/kg, assuming nonlinear partitioning, and 6,500 mg/kg assuming linear partitioning), and uncertainty as to which is more correct, the regulatory approach is usually to choose the more conservative of the values. On this basis, a soil concentration limit for lead based on acute toxicity in children of 6,500 mg/kg would be recommended.

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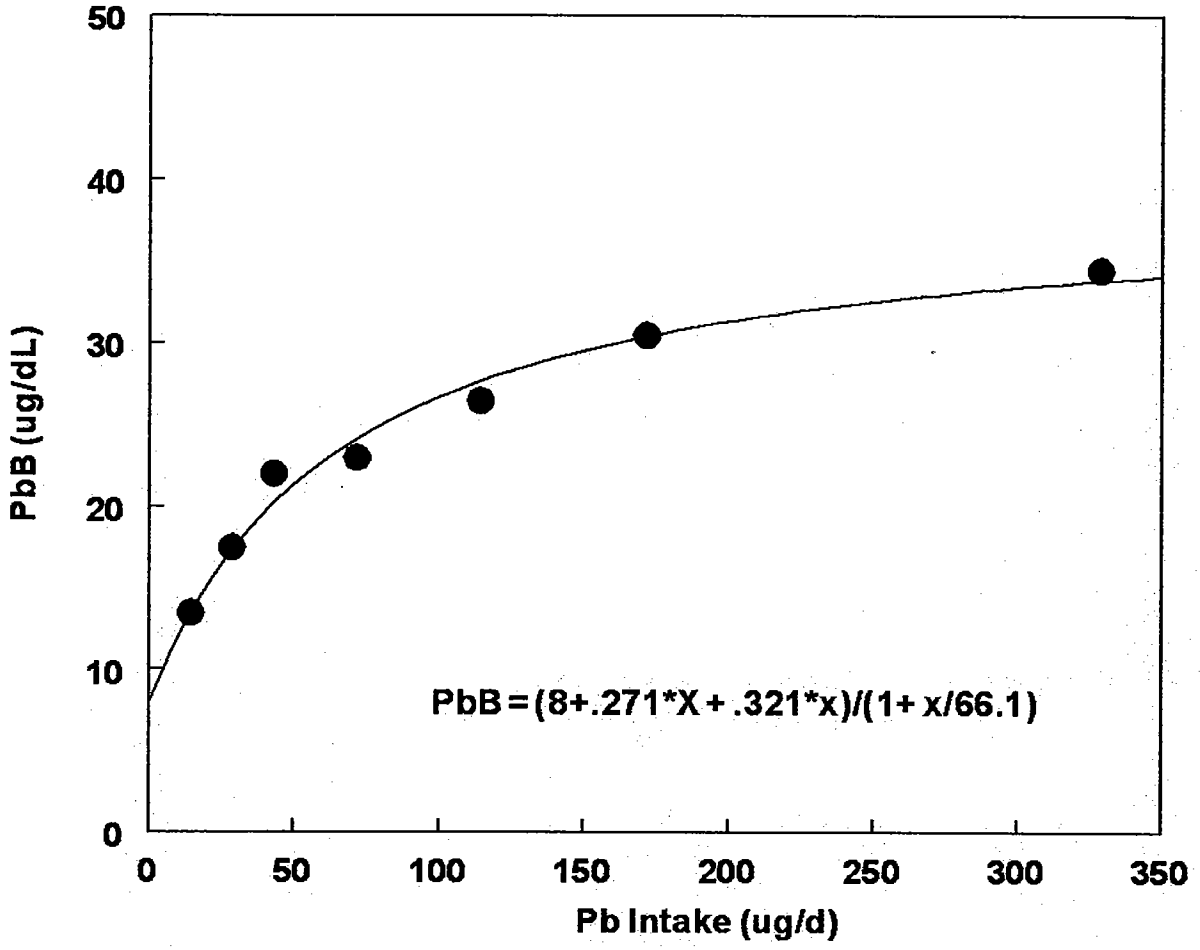

Figure 1. Nonlinear Regression of Lead Intake versus Blood Lead Concentration Data from Sherlock and Quinn

Lead intake and blood lead concentration data from Sherlock and Quinn (1986) were fit to a Michaelis-Menton-type equation as described in the section on "Model Inputs." A baseline blood lead concentration (B) was fixed at 8 μg/dL, based on the y-intercept of data presented in Figure 2 of the Sherlock and Quinn report. Parameters A, P, and M were optimized to provide the best fit of the data.

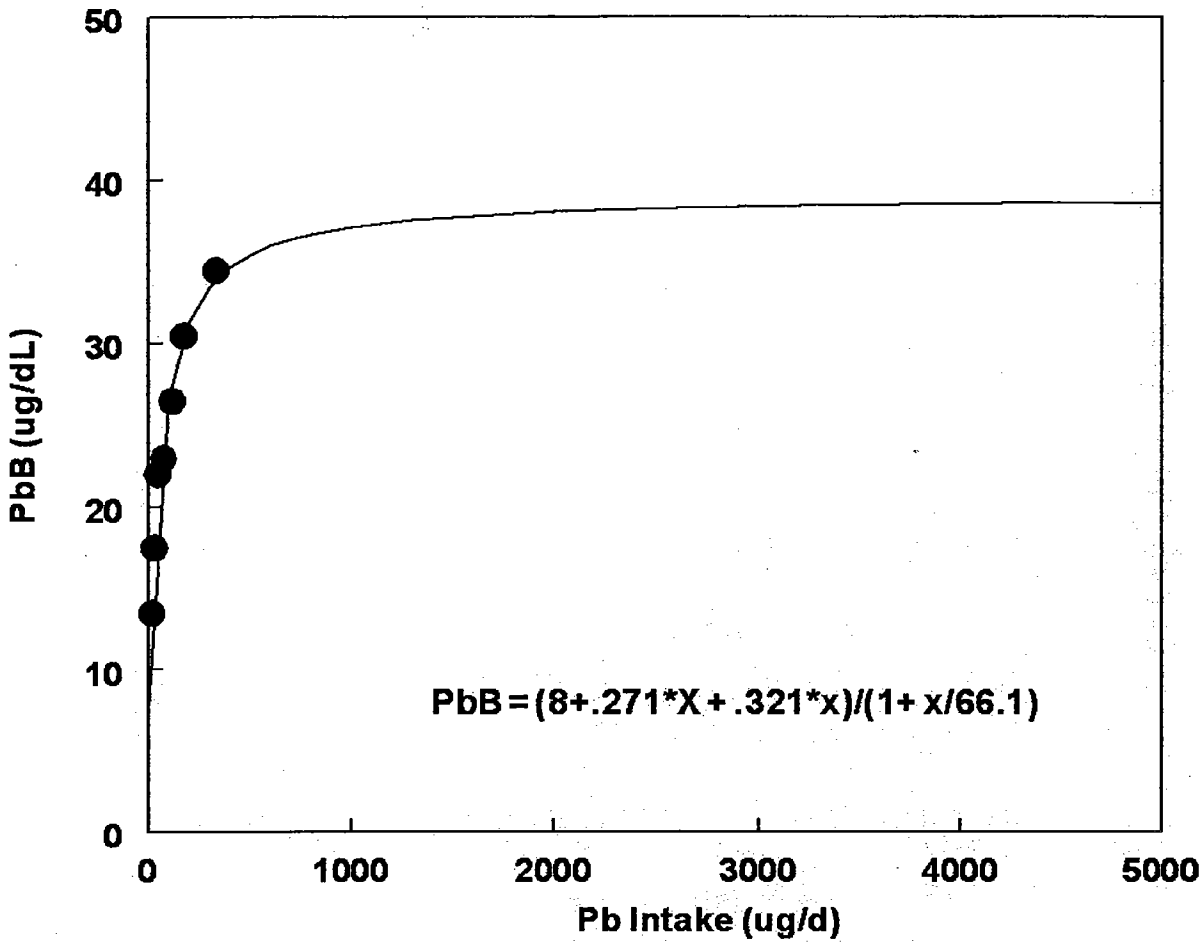

Figure 2. Extrapolation of Nonlinear Regression of Sherlock and Quinn Data to Higher Lead Intakes

Lead intake and blood lead concentration data from Sherlock and Quinn (1986) were fit to a Michaelis-Menton-type equation as in Figure 1. Using parameters (A, P, and M) providing the best fit of the data, the prediction of PbB was extrapolation to an intake of 5,000 μg Pb/day.

QuickTime™ and a
TIFF (PackBits) decompressor
are needed to see this picture.

Figure 4. Extrapolation of Curve Fits for Mallon Data to Higher Lead Intakes

Lead intake and blood lead concentration data from Mallon (1983) were fit to a nonlinear, exponential, and power functions as in Figure 3. Using parameters providing the best fit of the data, the prediction of PbB was extrapolated to an uptake of 80,000 μg Pb/d.

QuickTime™ and a
TIFF (PackBits) decompressor
are needed to see this picture.

Figure 3. Regression of Lead Uptake versus Lead Intake from the Mallon Study Using Nonlinear, Power, and Exponential Models.

Lead uptake and lead intake data were obtained from Mallon (1983). The data set was fit separately to a non-linear, an exponential, and a power function. All fits had r^2 values $\geq$ 0.98.

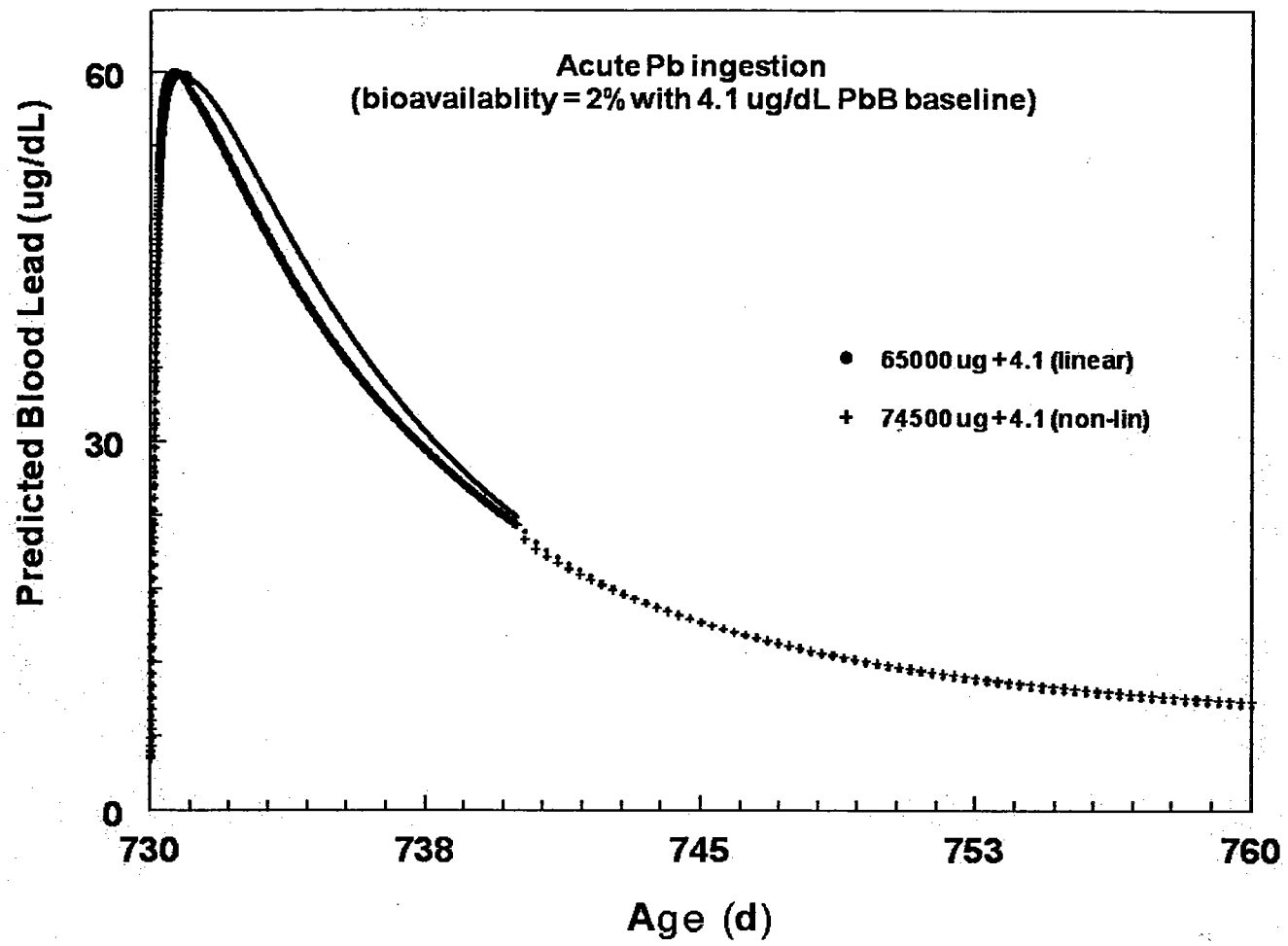

Figure 5. Predicted Blood Lead Concentrations from Ingestion of a Single Dose of Lead from Soil

Blood lead concentrations were predicted using the Leggett model scaled for a 2-year old child. The baseline blood lead concentration was assumed to be 4.1 μg/dL, and the absolute bioavailability of the lead dose from soil was assumed to be 0.02. The blood concentration versus time profiles shown are for a lead dose of 65,000 μg assuming linear partitioning of lead to erythrocytes, and 74,500 μg assuming non-linear partitioning. Both produce a peak blood lead concentration equal to the target limit of 60 μg/dL.

Department of Environmental Protection

Jeb Bush
Governor

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David B. Struhs
Secretary

June 16, 2003

Commanding Officer
Attn: Mr. Mark Davidson, Code ES33
SOUTHNAVFACENGCOM
Post Office Box 190010
North Charleston, SC 29419-9010

RE: Site 15 Determination of Site-Specific SCTLs, Naval Air Station Cecil Field, Florida.

Dear Mr. Davidson:

The Department has completed its review of the report titled Site 15 Determination of Site-Specific SCTLs, Naval Air Station Cecil Field, received by the Department on January 21, 2003, prepared and submitted by Tetra Tech NUS, Inc. Various discussions have ensued since the submittal of this document. You may recall that a decision was previously made between the Navy, EPA and FDEP that the soil cleanup target levels for this site would be based upon a "Restricted II" exposure scenario. This recreational exposure scenario was first developed in Woodward-Clyde Consultants' January 1995 Final Report: Cattle Dip Vat Assessment Program, A Summary Report, prepared for the Florida Department of Environmental Protection. The "Restricted II" recreational exposure scenario was originally developed by the Department to calculate risks posed by remote cattle dip vat sites. The Department has since modified the "Restricted II" recreational exposure assumptions from those contained in the Woodward-Clyde report.

The Department's contracted risk assessors with the University of Florida's Center for Environmental & Human Toxicology have looked at the document and have been involved in responding to the various proposals that have been suggested since the submittal of the document. In their February 21, 2003 letter, they initially took issue with Tetra Tech's modification of the body weight exposure assumption from the "Restricted II" scenario, increasing it from 35 kg to 70 kg so as to reflect an adult recreational user of the site. They argued that since there are not expected to be any institutional or engineering controls that would prevent access by adolescents and children, that the 70 kg body weight assumption would not be especially

protective in cases of exposure of children and adolescents to the site. Using the 35 kg body weight assumption, they calculated "Restricted II" site-specific SCTLs for benzo(a)pyrene equivalents (BAPeq) of 2.25 mg/kg, assuming adolescents would frequent the site, and 1.5 mg/kg, assuming small children would frequent the site. The Department at that time made a risk management decision based upon our knowledge of the characteristics of Site 15. It is felt that adolescents were by far more likely to visit the site than small children and that small children were highly unlikely to visit the site unsupervised by an adult. Upon that basis, the Department has accepted a site-specific SCTL of 2.25 mg/kg for BAPeq.

In response to the Department's risk assessors' February 21, 2003 letter, Tetra Tech challenged the use of the 35 kg body weight assumption and has proposed alternately to use 58 kg as a reasonable body weight assumption. This body weight was calculate based upon the assumption that recreational exposure would begin at around age 6. Based upon this assumption, Tetra Tech recalculated a new SCTL for BAPeq. In response, the Department accepted this rationale, but because the Department's risk assessors sensed an interest in re-evaluating the applicability of the "Restricted II" exposure assumptions, they pointed out in a May 5, 2003 letter that the incidental soil ingestion assumption of 50 mg/day is not particularly conservative and its appropriateness is questionable. They proposed using the 100 mg/day soil ingestion assumption that is in the table for the "Resticted II" scenario in recalculating a new SCTL for BAPeq for this site.

In response to the Department's risk assessors' May 5, 2003 letter, Tetra Tech requested the scientific basis for using the 100 mg/day incidential soil ingestion rate number. While our risk assessors could not respond with a specific scientific basis for the higher ingestion rate number, in a June 4, 2003 letter they explain their rationale in proposing this number.

In conclusion, I propose that Navy either accept the proposed site-specific SCTL of 2.25 mg/kg for BAPeq or have Tetra Tech (or other Navy risk assessor) recalculate the SCTL using the 58 kg body weight assumption and 100 mg/day incidental soil ingestion rate assumption. I believe the Department could accept the recalculated number.

I have attached the Department risk assessors' letter to this letter for your reference. If you have any concerns regarding this letter, please contact me at (850) 245-8997.

Sincerely,

David P. Grabka, P.G.
Remedial Project Manager

CC: Satish Kastury, FDEPA
Debbie Vaughn-Wright, USEP, Atlanta
John Flowe, City of Jacksonville
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Mark Speranza, TtNUS, Pittsburgh
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TJB JJC For ESN

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February 21, 2003

Ligia Mora-Applegate
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Dear Ms. Mora-Applegate:

At your request, we have reviewed the Site 15 Determination of Site Specific SCTLs for NAS Cecil Field, Jacksonville, Florida. This document proposes cleanup goals for lead and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) in soil at the 85-acre Site 15. Cleanup goals for lead have been developed with the objective of eliminating significant exposures to mammalian and avian receptors, as well as to children and adults visiting the site. For cPAHs, the goal is to reduce exposure to bring cancer risks below the goal of 1.0E-06.

Based on our review, we have the following comments:

1. The document explains that cPAH concentrations should be assessed as total benzo(a)pyrene equivalents (BaPEq) rather than developing SCTLs for individual cPAHs. We agree with this approach — it is consistent with current FDEP procedures for addressing cPAH contamination in soils.

2. The proposed SCTL for carcinogenic PAHs (4.5 mg/kg) is based on the FDEP "Restricted II" scenario. This scenario was originally developed by FDEP to calculate risks posed by remote cattle dip vat sites. Some of the exposure assumptions have been modified for Site 15 — most notably, body weight. The body weight assumption was increased from 35 kg to 70 kg so as to reflect an adult recreational user. This begs the question why only adults are expected to visit Site 15, since no institutional/engineering controls are planned that would prevent access by adolescents and children. Presumably, at least some adults using the site for recreational purposes (e.g., hiking, biking, trail riding) will bring their children. Also, adolescents have sufficient mobility that they could visit the site by themselves. Since children and adolescents receive greater doses

of contaminants from soils than adults on a per unit body weight basis, a cleanup goal for cPAHs based strictly on adult exposure is not necessarily protective in the case of exposure of children and adolescents. One approach to address this would be to use the original body weight assumption from the Restricted II scenario, 35 kg, which includes exposure while an adolescent. This would reduce the cPAH SCTL to 2.25 mg/kg. This would cover the most likely age group, other than adults, that might visit the site on a regular basis. Alternatively, if the possibility of repeated visits by small children is considered, a lower SCTL would be needed. One could be derived simply by modifying the FDEP aggregate resident scenario to limit the exposure frequency to 50 days and the exposure duration to 20 years. This would result in a cPAH SCTL of about 1.5 mg/kg.[1]

3. This SCTL is intended to be the acceptable upper limit for the average (or more precisely, the 95%UCL of the mean) concentration over an exposure unit. Currently, the entire 85-acre site is assumed to constitute a single exposure unit. In reality, contact with this large site is unlikely to be random, but instead more frequent near roads, trails, and access points. In part to address uncertainty about true randomness of contact within an exposure unit, FDEP requires that that the highest post-remediation concentrations not exceed three times the SCTL. This means that the not-to-exceed concentration for cPAHs would be 13.5 mg/kg if the SCTL proposed in the document is used, and 6.75 mg/kg if an SCTL is used that doesn't limit exposure to adults (see comment 2, above). Both of these concentrations are substantially below the estimated pick-up level for cPAHs needed to achieve an SCTL of 4.5 mg/kg presented in the report. Also, with respect to non-random exposure, it would be helpful to remove structures at the site which might attract visitors (especially children) to areas with elevated cPAH concentrations, such as the burn areas.

4. Two SCTLs for lead are presented for protection of human health. One is based on acute exposure for a small child. We participated in the development of this acute lead SCTL of 6,500 mg/kg, and agree that its use is appropriate for this site. Because it is based on acute exposure, it is used as a not-to-exceed value. A second SCTL, 3,281 mg/kg, was developed for chronic exposure using the same assumptions as for cPAHs. As with cPAHs, it is not clear why the assessment of chronic exposure doesn't include older children or adolescents. In the case of lead, however, the question is probably moot. If the prediction of post-remediation concentrations in the report is accurate, cleanup of the site to satisfy the acute lead SCTL will leave a site-wide average lead concentration of 577 mg/kg. This concentration is only about 50% higher than the residential lead SCTL, and consequently should be protective for chronic lead exposure for children and adolescents at this undeveloped site.

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[1] This is an approximate value based on changing only exposure duration and exposure frequency. Technically, all of the age-weighted inputs for the aggregate resident scenario (e.g. soil ingestion, body weight, etc.) should be re-derived for an age interval of 1 to 21 years instead of 1 to 31 years.

5. We are in agreement with the remedial goals selected for lead based on protection of mammalian and avian species (1,149 mg/kg site-wide average for avian species; 2,512 mg/kg average over 2-acre parcels for mammalian species; Table 5). We also agree that cleaning the site to lead and cPAH levels protective of human health will also result in concentrations safe for ecological receptors.

6. Regarding the section on determining the extent of remediation, we have received the concentration data for both B[a]PEq and lead in a spreadsheet format. We note that a single location is represented by several samples, and that some sample values are averages, presumably of discrete samples. It is not clear which samples are being included in the iterative processes used to determine the extent of remediation. For example, for B[a]PEq, the spreadsheet contains 515 observations that decrease to 472 if we exclude average values, whereas 430 of these are surface samples (starting at 0 depth). However, the number of distinct locations is only 325. The calculation sheet included in the pdf document states that 385 samples are considered. We are unable to sort this out, and consequently unable to check the calculation of projected post-remediation concentrations. It would be very helpful to have a clearer articulation of the concentrations assigned to specific sampling locations and their basis.

We hope these comments are helpful. Please do not hesitate to contact us if you need further assistance regarding the evaluation of this site.

Sincerely,

Hugo G. Ochoa, DVM, Ph.D.

Stephen M. Roberts, Ph.D.

UNIVERSITY OF FLORIDA

Center for Environmental & Human Toxicology

P.O. Box 110885
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May 5, 2003

Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
Room 471A, Twin Towers Office Building
2600 Blair Stone Rd.
Tallahassee, FL 32399

Dear Ms. Mora-Applegate:

Tetra Tech has proposed basing the Soil Cleanup Target Level for benzo(a)pyrene (BaP) at Site 15 on a body weight of 58 kg. You may recall it has been decided that SCTLs for chronic exposure at this site will be developed using a recreational scenario, with the assumptions taken from the FDEP "Restricted II" scenario. The body weight assumption associated with this scenario is 35 kg. A 20-year exposure duration was chosen as a site-specific assumption for this site, and Tetra Tech maintains that the most accurate average body weight for a 20-year period that begins as an older child (i.e., from age 6 to 26) is 58 kg. This value was calculated from data on body weights over this interval found in the EPA *Exposure Factors Handbook.*

Since BaP is a carcinogen, the dose used to estimate risks is derived from the full exposure period — in this case, 20 years. If there is agreement that recreational exposure at this site in fact begins at age 6, then 58 kg would be a reasonable body weight assumption. If chronic exposure is assumed to begin at an earlier age, then a lesser value (perhaps closer to 35 kg) would be more appropriate. [Note: A body weight assumption of 35 kg would also be appropriate for chronic exposure to a non-carcinogen beginning at age 6. However, this is not an issue at this particular site, since the only chemical of concern other than BaP is lead. The cleanup levels for lead are driven by acute toxicity and ecological concerns.]

Since there seems to be interest in re-evaluation of the applicability of Restricted II exposure assumptions for this site, we would like to point out that the incidental soil ingestion assumption of 50 mg is not particularly conservative. This is a value typically used in adult exposure scenarios in which there is little direct contact with soil. Since the exposure scenario for Site 15 includes an adolescent at play or otherwise engaged in recreation, the appropriateness of a 50 mg/day soil ingestion rate is questionable. There is no explicit guidance from EPA

regarding the incidental soil ingestion rate to be used for an adolescent recreator, or an adolescent trespasser, which would presumably have similar soil contact. However, in our experience, a soil ingestion rate of 100 mg/day is most commonly used in risk assessments for an adolescent trespasser or recreator. In view of this, we recommend that the re-examination of exposure assumptions for this site by FDEP and the U.S. EPA include incidental soil ingestion.

Sincerely,

Shukla Roy, Ph.D.

Stephen M. Roberts, Ph.D

cc: David Grabka, FDEP

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June 4, 2003

Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399

Dear Ms. Mora-Applegate:

Tetra Tech has proposed basing the Soil Cleanup Target Level (SCTL) for benzo(a)pyrene (BaP) at Site 15 on a body weight of 58 kg. You may recall it has been decided that SCTLs for chronic exposure at this site will be developed using a recreational scenario, with the assumptions taken from the FDEP "Restricted II" scenario. The body weight assumption associated with this scenario is 35 kg and the exposure duration is 20 years. Tetra Tech maintains that the most accurate average body weight for a 20-year period that begins as an older child (i.e., from age 6 to 26) is 58 kg. They derived this value from data on body weights for ages 6 through 26 found in the EPA *Exposure Factors Handbook.*

Since BaP is a carcinogen, the dose used to estimate risks is derived from the full exposure period — in this case, 20 years. If there is agreement that recreational exposure at this site in fact begins at age 6, then 58 kg would be a reasonable body weight assumption. If chronic exposure is assumed to begin at an earlier age, then a lesser value (perhaps closer to 35 kg) would be more appropriate.

Since there seems to be interest in re-evaluation of the applicability of exposure assumptions selected for this site, I would like to point out that the incidental soil ingestion assumption of 50 mg/day used by Tetra Tech to calculate a BaP SCTL is not particularly conservative. This value is typically used in adult commercial/industrial exposure scenarios in which there is little direct contact with soil. When there is direct contact with soil outdoors, such with an adult resident, a higher soil ingestion value of 100 mg/kg is used. A 100 mg/day assumption is not just relevant for residential settings. For example, U.S. EPA Region 9 has recently changed their default incidental ingestion assumption for adult occupational exposure from 50 mg/day to 100 mg/day when outdoor soil exposure is involved. The common risk assessment scenario that is probably most like the adolescent recreator, which is the basis for the BaP SCTLs at Site 15, is the adolescent trespasser. Both involve receptors in the same age range, with presumably the same opportunities for outdoor direct soil contact. Although there is no explicit guidance from the U.S. EPA regarding a default soil ingestion value for the adolescent trespasser,

the most typical value used, in my experience, is 100 mg/day. Use of a lesser value such as 50 mg/day at Site 15 would require some compelling justification, in my opinion. Unless there is a reason why the adolescent recreators at this particular site will have almost no direct soil contact, a soil ingestion rate assumption of 100 mg/kg would be much more defensible in creating site-specific SCTLs.

Sincerely,

Stephen M. Roberts, Ph.D.

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Center for Environmental & Human Toxicology

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December 2, 2002

Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399

Dear Ms. Mora-Applegate:

In the context of assessing potential risks to human health from lead in soils at Site 15, Cecil Field, the question arose as to what constitutes an acceptable soil lead concentration limit based on acute contact by a small child. This question is important because it may define the effective not-to-exceed value for lead in areas where small children might come in contact with soil. We conducted an analysis to determine the upper limit for lead concentration in soil such that acute exposure, in the form of a soil pica episode [single dose], would not result in a blood lead concentration associated with acute lead toxicity in children. This analysis was conducted in collaboration with Dr. Joel Pounds of Battelle Northwest Laboratories and Dr. Ted Simon of U.S. EPA Region 4. The details of that analysis have been provided to you previously. We intend to publish this analysis in a peer-reviewed journal, but this will take several months. In the meantime, so as not to further delay management decisions concerning Site 15, we would like to convey to you that the results indicate protection from acute exposure of children at a soil lead concentration of 6,500 mg/kg or less.

If you have any questions regarding this analysis or its implications in terms of risk strategies at Site 15, Cecil Field, we would be happy to provide additional information.

Sincerely,

Stephen M. Roberts, Ph.D.

Bernard K. Gadagbui, Ph.D.

A Soil Concentration Limit for Lead Based on Risk from Acute Exposure for a Small Child

Bernard K.-M. Gadagbui[1], Joel G. Pounds[2], Ted S. Simon[3], and Stephen M. Roberts[1]

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December, 2002

INTRODUCTION

Lead is a common contaminant of soils in both industrial and residential settings. Historical use of lead in gasoline has resulted in elevated soil concentrations near roadways, and very high concentrations of lead may remain in soils and slag near smelter operations and in tailings from mining operations (Eckel et al., 2002). Improper disposal of lead-containing waste, such as incinerator ash and lead battery cores, have created hazards at numerous waste sites in the U.S. Prior to 1978, lead comprised as much as 50% of some house paints. The weathering,

chipping, and peeling of lead-based paints are an important source of lead contamination of soils in residential settings, and this remains an important source of lead exposure for children in many urban areas (CDC, 1997).

Children are particularly vulnerable to lead contamination in soil for several reasons. Small children tend to have a much higher soil incidental ingestion rate of soils than adults, due to extensive contact with soil while at play and frequent mouthing behavior (Stanek et al., 1998). Thus, intake of lead [and other contaminants] by ingestion from soil is generally higher on an absolute basis in small children than in older children or adults. On a per unit body weight basis, the differences in lead dose from soil are even larger due to the smaller body weight of young children. The gastrointestinal absorption of lead is greater in children than adults (Ziegler et al., 1978; Alexander et al., 1974), further accentuating the differences in effective lead dose resulting from exposure to soil lead contamination. Finally, the developing nervous systems of children appear to be especially sensitive to neurotoxic effects of lead (Schwartz, 1994).

To develop concentration limits for lead in soil protective for small children, the U.S. Environmental Protection Agency (EPA) uses a probabilistic model to predict blood lead concentrations in children exposed to lead in soil at a specified concentration — the Integrated Exposure Uptake Biokinetic (IEUBK) Model (EPA, 1994a). With this model, a soil lead concentration limit can be derived such that a target blood lead concentration is not exceeded. Because the model is probabilistic and accounts for variability in lead toxicokinetics among individuals, the output is a distribution of blood lead concentrations that would arise in a population of children exposed to lead in soil at a specified concentration. Currently, the target blood lead concentration is $\leq$ 10 μg/dL to prevent neurobehavioral effects, per Centers for Disease Control and Prevention (CDC) recommendation (CDC, 1991). Typically, a soil concentration limit is selected such that only a small percentage (e.g., $\leq$ 5%) of exposed children would be predicted to have a blood concentration above this value (EPA, 1994b).

The IEUBK model and soil lead concentration limits derived from it are based on chronic exposure. As a regulatory tool, limits based on chronic exposure are appropriate in that the vast majority of situations in which risks to children from soil lead contamination are contemplated involve at least the potential for repeated contact. There are some circumstances, however, where consideration of risks from acute exposure to soil is warranted. For example, an acute exposure scenario could be relevant for a park or recreational area where an individual child might play, but only on one or a few occasions.

A soil lead concentration limit based on acute exposure can also be useful for sites where chronic exposure is anticipated. Soil concentration limits based on chronic exposure are often compared with the average contaminant concentration over the exposure area, since this is thought to best offer the best representation of the concentration to which an individual is exposed over time. In this situation, soils with concentrations above the limit are allowed to remain in place in some areas as long as other areas contacted by the child have offsetting lower concentrations. An acute exposure limit, used as a not-to-exceed value for all areas of the site, would help to insure that even a single exposure event with soils above the chronic exposure limit is safe.

Developing an acute exposure limit for lead in soils is more complicated than simply adjusting the exposure frequency assumptions in the IEUBK model. First, it is important to recognize that the amount of soil ingested acutely by a small child can be substantially different from the average daily incidental soil ingestion rate used to assess chronic intake. Unfortunately, there is little documentation of the frequency of these soil pica events or the amounts of soil ingested. Using data from their soil ingestion studies in children, Stanek and Calabrese (1995) estimated that 42% of small children ingest > 5 g of soil on one or two days a year, and 33% ingest > 10 g. These occasional soil doses are up to 70-fold or more higher than the default average daily soil ingestion rate assumption currently recommended for use with the IEUBK model (135 mg soil per day; EPA, 1994a). Second, the target blood lead concentration limit for chronic exposure (10 μg/dL) may not be applicable for acute exposure because it is based on neurobehavioral effects in chronically exposed individuals. The deficits observed in studies of these individuals likely require more than transient elevations in blood lead, as would occur with an acute lead dose. An assessment of the consequences of acute exposure requires endpoints relevant specifically to acute toxicity. Third, the computer model used to predict blood concentrations resulting from exposure to lead in soils must be capable of simulating a single acute dose. Many of the models currently available, including the IEUBK, do not provide this capability.

We report here the results of an analysis to develop a risk-based soil concentration limit for lead protective of small children for situations of acute exposure. For the purposes of this analysis, an acute exposure was defined as ingestion of soil containing lead on a single occasion. In order to produce a soil concentration limit that is broadly protective, the circumstance regarded as most likely to result in the highest soil lead dose was addressed — a soil pica episode by a small (2-year old) child. The overall approach was as follows. Clinical information regarding acute lead poisoning in children was assessed, and a blood lead concentration limit was selected. From the blood lead concentration limit, a corresponding dose limit from soil was calculated using biokinetic modeling. The dose limit was the dose from soil producing a peak blood lead concentration equal to the blood lead concentration limit. Finally, a soil lead concentration limit was calculated from the soil dose limit with an assumption regarding the volume of soil ingested during a pica episode.

SELECTION OF A BLOOD LEAD CONCENTRATION LIMIT

The clinical literature contains numerous reports of lead poisoning in children, and from these a reasonably complete picture of the signs and symptoms of acute lead intoxication can be obtained. The most serious manifestation of acute lead toxicity in children is acute encephalopathy. Signs and symptoms of acute encephalopathy include apathy, bizarre behavior, frequent and persistent vomiting, loss of coordination, intractable seizures, and coma. Acute encephalopathy is usually associated with blood lead concentrations over 100 μg/dL, although it has been observed with blood lead concentrations as low as 70 μg/dL (Piomelli et al., 1984). Peripheral neuropathy, common in lead poisoning in adults, is rare in children. Gastrointestinal effects such as colic - characterized by abdominal pain, constipation, cramps, nausea, vomiting, anorexia, and weight loss - have been observed as one of the early symptoms in acute exposures at blood lead concentrations of ≥ 60 μg/dL in children and adults (ATSDR 1999; NAS 1972). Acute lead intoxication can also produce renal effects, including a Fanconi-like syndrome, a triad

of hypophosphatemia, aminoaciduria, and glycosuria (Chisholm, 1962). While nephropathy can occur as a consequence of acute lead toxicity in children, it is more common in adult lead poisoning, and is typically found in workers with blood lead concentrations > 60 μg/dL (Henretig, 2002).

Lead produces anemia, both through an inhibition of hemoglobin synthesis and diminished erythrocyte survival (Henretig, 2002). Lead impairs hemoglobin synthesis by interfering with the critical phases of the dehydration of aminolevulinic acid (catalyzed by the cytosolic enzyme, δ-aminolevulinic acid dehydratase, ALAD) and the incorporation of iron into the protoporphyrin molecule. Although effects on ALAD activity can be detected at low blood lead concentrations (> 10 μg/dL), the clinical manifestation of anemia in children is associated with much higher concentrations, ca. > 80 μg/dL.

The CDC has defined a blood lead concentration of > 10 μg/dL in children as an intervention level. This definition is based on evidence that blood lead concentrations above 10 μg/dL are associated with neurobehavioral effects and deficits in cognitive performance. There are no data to indicate how long a blood lead concentration must be elevated for these effects to occur, but the studies showing subtle neurological effects of lead in children used populations that likely had repeated exposures (such as to lead-containing paint chips, house dust, or soil). As a result, the 10 μg/dL blood lead concentration as a threshold for concern is based on a persistent elevation, rather than a transient spike in blood lead as would be expected from an acute lead dose. The endpoint — subtle neurological deficits — is relevant to acute exposure, and these effects may occur as sequelae to a severe, acute intoxication episode. However, the use of 10 μg/dL as a blood concentration limit to protect against this effect from a single *acute* lead exposure is arguably not appropriate.

Most cases of acute symptomatic lead poisoning in children are associated with blood lead concentrations greater than 100 μg/dL (NAS, 1972). The EPA has identified a 60-100 μg/dL lead in blood as a lowest observable adverse effect level (LOAEL) for acute toxicity in children (EPA, 1986), and from the discussion above, clinical signs and symptoms of lead poisoning are associated with concentrations at or above 60 μg/dL. For the purposes of this analysis, a concentration of 60 μg/dL was selected as the target limit for the peak blood lead concentration after an ingested soil dose.

BIOKINETIC MODELING

Assessment of the hazards associated with lead in environmental media is unusual in that assessment is based on blood lead concentration as the toxicological endpoint. In some situations, empirical measurements of blood lead concentration are available for the exposed population, and the assessment of hazard is relatively straightforward. More often, however, blood lead concentrations must be modeled for exposed populations, as well as for populations that might become exposed in the future. Several PBPK or biokinetic models have been developed to predict blood lead concentrations resulting from environmental lead exposures (see EPA, 2001 for a review). Some of these models have the ability to evaluate intake of lead from a variety of sources, including ingestion of lead in food, water, and soil, and inhalation of lead in

particulates. The distribution of lead to various compartments in the body over time is considered with varying degrees of complexity among the models, but all have the ability to predict the blood concentration achieved with chronic exposure to lead under defined exposure circumstances.

Model selection

The IEUBK model used by the EPA has undergone extensive calibration and use and is judged to perform well in predicting blood lead concentration distributions for children 0 to 7 years of age. Although the model performs well in assessing chronic exposure, it is not capable, in its current configuration, of simulating blood lead concentrations arising from a single dose. This limitation makes the IEUBK model unsuitable for developing a soil lead concentration limit for acute exposure.

Other biokinetic models were evaluated as candidates for use in this analysis. The Rabinowitz model (Rabinowitz et al., 1976) is relatively simple and was developed to predict blood lead concentrations associated with long-term lead intake in adults. The Rabinowitz model is not scaled for children, which greatly limits its utility for this analysis. The same limitation applies to the Bert model (Bert et al., 1989), which is a more complex version of the Rabinowitz model. The California model (EPA, 2001) has been developed to predict blood lead concentrations from environmental exposure in both children and adults. However, like the IEUBK model, it is not capable of predicting the blood lead concentration profile resulting from a single dose. The Stern model (Stern, 1994) was developed to predict incremental changes in the steady-state blood lead concentration resulting from exposures to lead in soil, and therefore is useful only for situations of chronic lead exposure. The O'Flaherty model (O'Flaherty et al., 1995) is a true physiologically-based pharmacokinetic model. It is capable of simulating blood lead concentrations for ages 0 through adulthood, and for both short- and long-term exposures. There are indications that the model does not perform well when lead is ingested at very high concentrations (ATSDR, 1999), which could represent a problem when assessing acute exposures. Moreover, the C++ version does not allow the user to change the bioavailability from the default value.

The Leggett model (Leggett, 1993), developed by the Oak Ridge National Laboratories, is scaled for children and is capable of generating a blood concentration versus time profile for a single lead dose. Additionally, the Leggett model gives the user the option of simulating lead uptake by red blood cells as either a linear or non-linear process. These are features that many of the other models do not have. The model has been shown to perform well for a wide variety of exposure situations (EPA, 2001) and is the biokinetic core for the EPA's All-Ages Lead Model (AALM). From the comparison of model capabilities and attributes, the Leggett model was considered to be the most suitable for this acute exposure analysis.

Model inputs

Age-specific inputs for the Leggett model were chosen based on a 2-year old. This was considered to be the approximate age when a soil pica event while at play is most likely. The baseline blood lead concentration was assumed to be 4.1 μg/dL, which is the arithmetic mean

concentration for 1-2 year olds reported in the Third National Health and Nutritional Examination Survey, Phase 2 (NHANES III) (Pirkle et al., 1998). The default bioavailability assumptions for the Leggett model are age-specific, with 45 percent for birth to 1 year, and 30 percent for ages 1 to 5 years. Consequently, for a 2-year old, the default bioavailability factor would be 0.30. The EPA currently recommends a value of 0.30 (30%) for the absolute bioavailability of lead from soil for the IEUBK model (EPA, 1994a) when assessing chronic lead exposure. This assumption is derived in part from dietary absorption studies indicating that the absolute bioavailability of soluble lead from food and water in children is about 0.50 (50%; Alexander et al., 1974; Ziegler et al., 1978). Based on studies of the relative bioavailability of lead from soil versus water, an additional reduction factor of 0.6 is applied, leading to the combined absorption factor of 0.30 (i.e., 0.5 x 0.6 = 0.3). The potential applicability of this bioavailability factor (0.30) to an acute exposure scenario was evaluated as part of this analysis.

The gastrointestinal absorption of ingested lead is well documented to decrease with increasing lead dose. Aungst and Fung (1981) investigated lead absorption across the gut lumen *in vitro* in everted rat intestines and demonstrated that lead uptake involves two distinct processes: a passive diffusion process that is independent of gut concentration, and a capacity-limited active or facilitated diffusion process. At low lead concentrations, lead transport is effected almost exclusively through the active route. At higher concentrations, the lead transport mechanism becomes saturated, and the relative contribution of passive diffusion is increased. Passive diffusion of lead in the gut is poor, and as the contribution of passive diffusion increases, the fraction of ingested lead absorbed is diminished. This concentration-dependent uptake of lead from the gut may explain at least in part the non-linear relationship between lead intake and blood lead concentrations observed in children (Sherlock and Quinn, 1986; see below). It also indicates strongly the need to incorporate dose-dependent absorption when modeling blood lead concentrations from acute lead exposure.

Three studies were identified that provide information of potential value on the dose-dependent uptake of lead from the gut. Sherlock and Quinn (1986) conducted a duplicate diet study in which bottle-fed infants were exposed to lead in water and in formula mixed with contaminated water for one week in the 13th week after the infant's birth. Dietary lead intakes, believed to constitute almost all ingested lead, ranged from 0.04 to 3.4 mg/week. The authors observed a curvilinear relationship between the blood lead concentration and lead intake, with higher lead doses producing less-than-proportional increases in blood lead concentration. Reichlmayr-Lais et al (1988) investigated the effect of dietary lead intake on lead retention in adult rats. Rats were exposed to lead concentrations ranging from 0.02 to 800 μg lead per kg diet for 29 days. Absorption of lead, as inferred from lead retention, was similar for lead concentrations in diet up to 1 μg lead per kg feed, but was nearly 10-fold lower at higher dietary lead concentrations. In a study by Mallon (1983), lead absorption was examined in infant and juvenile baboons. Infant (6-7 months of age; 3 kg average body weight) baboons were administered lead acetate in gelatin capsules at doses of 100, 200, or 1000 μg lead per kg body weight per day for 4.6 – 6 months. Juvenile baboons (22-23 months of age; 5 kg body weight) received doses of 100 or 500 μg per kg body weight per day for 3.5 – 6 months. Controls received no lead acetate, and their only lead intake was 12 μg lead per kg body weight per day from standard diet. As the daily lead dose increased from 12 to 1000 μg/kg for the infant

baboons, and from 12 to 500 μg/kg for the juvenile animals, the fraction of the lead dose absorbed decreased from 0.24 to 0.02 in infants and from 0.12 to 0.01 in juvenile animals.

For the IEUBK model, the EPA used data from the Sherlock and Quinn study to address the dose-related bioavailability of lead (see EPA, 1994a). Total lead uptake from the gut was treated as the sum of saturable and non-saturable components. The data were fit to a nonlinear regression model in a form comparable to the Michaelis-Menten equation used to describe the *in vitro* results observed by Aungst and Fung (1981):

$$PbB = \frac{B + A \times Pb_{intake} + P \times Pb_{intake}}{\left(1 + Pb_{intake}/M\right)}$$

where:

B is the baseline blood lead concentration (10.85 μg/dL was used)

A and P are coefficients describing, respectively, nonlinear (active) and linear (passive) lead intake, between PbB and dietary lead intake; and

M is the Michaelis-Menten type (nonlinearity) parameter — the daily dietary intake rate at which the facilitated component of lead uptake is half saturated (Gary Diamond, personal communication).

Intake data from infant and juvenile baboons in the Mallon study were also fit to a similar model. Based on a goodness-of-fit comparison for these data sets, the EPA selected the Sherlock and Quinn data to represent the nonlinear absorption of lead in children, with the Mallon study cited as providing supporting data. From the Sherlock and Quinn data, the lead intake at which absorption is greatly reduced was estimated to be 90 μg/day.

We also evaluated the Sherlock and Quinn data to determine their suitability for use in defining the bioavailability of ingested lead. Lead uptake curves from this study were approximated by extracting the blood lead concentration versus weekly lead intake rate for the grouped data [from Figure 2 of Sherlock and Quinn, 1986] to SlideWrite v.5, and converting the dose to μg/day. The blood lead concentration versus lead intake data were then fit to the nonlinear regression model used by the EPA (see equation above). The data fit the Michaelis-Menten type equation well (Figure 1; r^2=0.98), as observed by the EPA, although the fit statistics revealed large standard errors for the estimated parameters A and P. The large errors for the parameter estimates are due to the availability of only seven data points to estimate three parameters (A, P, and M). Although this equation was a good fit to the observed data (Fig. 2), extrapolation to much higher doses (up to 5000 μg/day) did not produce plausible increases in blood lead concentration. Because the dose-blood concentration relationship produced implausible results at lead doses relevant to acute lead exposure, the use of these data and this equation was rejected. This data set was also fit to several empirical nonlinear equations with similar poor extrapolation to high doses (not shown).

The data from infant and juvenile baboons by Mallon (1983) were also evaluated. Although not obtained in humans, these data were derived in a primate at a relevant age. There is a close resemblance between hematological, blood lead responses, and patterns of lead

distribution and retention in baboons and humans (Mallon, 1983). This data set has the advantage of direct measurement of lead absorption, rather than indirect measurements, e.g. blood lead concentration, from which absorption must be inferred, as with the Sherlock and Quinn study. Additionally, the Mallon study utilized higher doses, extending the range over which dose-dependent absorption information is provided. Lead uptake data from the Mallon study were fit to nonlinear, exponential, and power function equations (Figure 3). The three equations fit the observed data reasonably well, with $r^2>0.98$. However, the extrapolated bioavailability at higher lead doses were markedly different (Figure 4). The power function model predicted negligible uptake of lead above doses of approximately 15,000 μg/day. The nonlinear and exponential models predicted a fairly constant uptake of approximately 1 and 3 percent, respectively, for lead doses up to 80,000 μg/day.

While all treatments of the Sherlock and Quinn and Mallon data predicted low uptake of lead at high doses, there is considerable uncertainty in establishing the precise value at intakes well beyond the observed data. From the two data sets, uptakes ranging from essentially zero to 3% were obtained for lead doses greater than about 10,000 μg/day. While these differences are small, it is important to recognize that blood lead concentrations are a function of [1- uptake]. As a consequence, the difference between choosing 0.5% and 3% uptake is a 6-fold difference in the predicted blood lead concentration. That difference is a considerable margin of uncertainty. As a practical measure, we chose not to extrapolate beyond the observation range, and selected for modeling the uptake value from the highest dose tested in the Mallon study — 0.02 (2%). This uptake represents a conservative choice in that the actual uptake of lead is likely to be lower at lead doses of interest for acute exposure.

A second issue regarding bioavailability is the extent to which absorption of ingested lead is diminished when it is present in soil rather than in the form of soluble lead as in the Sherlock and Quinn and Mallon studies. The relative bioavailability of lead from soil as compared with water has been measured for several soil samples from hazardous waste sites using the swine model (Ruby et al. 1999). Among these samples, the relative bioavailability was found to vary from less than 0.10 to 0.90). The EPA has chosen a value near the middle of this range, 0.60 (60%) as the default for the IEUBK model (EPA, 1994a). For the purpose of setting a soil concentration limit for acute exposure, an argument can be made for choosing a relative bioavailability value from the upper end of the range of observed values. For example, if a relative bioavailability of 0.60 is assumed, but the actual relative bioavailability of lead in a soil sample is 1.0, a soil lead concentration predicted to yield a peak blood lead concentration of 60 μg/dL (the blood lead limit chosen for this analysis) might actually result in a peak concentration of 100 μg/dL. As discussed in "Selection of a Blood Concentration Limit," the latter concentration is capable of producing clinical acute lead poisoning. In view of this small margin for error, a relative bioavailability of 1.0 was selected for the analysis; i.e., the bioavailability of lead in soil is the same as in water. It is acknowledged that other relative bioavailability values might be used to derive a soil concentration limit for acute exposure on a site-specific basis, provided that this information can be obtained with high confidence.

ESTIMATING THE SOIL CONCENTRATION LIMIT

Soil dose corresponding to the blood concentration limit

With the input assumptions described above, the soil dose producing a peak blood concentration at the specified limit (60 μg/dL) was determined through an iterative process. Simulations were performed assuming either linear or nonlinear partitioning of lead into erythrocytes. As shown in Figure 5, the 60 μg/dL blood concentration limit is reached with a soil dose of 74,500 μg of lead if non-linear partitioning to erythrocytes is assumed, and with a soil dose of 65,000 μg lead assuming linear partitioning.

Soil concentration limit

The amount of Pb ingested depends on the soil lead concentration and the amount of soil ingested. Data on the soil mass ingested during pica episodes are extremely limited. Vermeer and Frate (1979) found that the incidence of soil pica among children in a rural black community was 16 percent, and estimated the average amount of soil ingested to be 50 g/day. In a study by Calabrese et al. (1991), one child (among 64 examined) repeatedly ingested soil at rates ranging from 74 mg to 13.6 g/day over a two-week period. Wong (1988) found that six of 52 children studied exhibited soil pica behavior. Five of these children had normal mental capacity, and the amounts of soil ingested ranged from 0 to 10.3 g/day. One mentally retarded child ingested up to 60 g of soil per day. The EPA Child-Specific Exposure Factors Handbook (EPA, 2000) recommends a value of 10 g for soil pica. Using this value, the soil concentration corresponding to soil dose limit of 74,500 μg lead under conditions of nonlinear partitioning would be 7,450 mg/kg. The dose limit of 65,000 μg assuming linear partitioning would result from ingestion of 10 g of soil at a concentration of 6,500 mg/kg.

The biological mechanisms or processes underlying the nonlinear accumulation of lead in blood or red blood cells with increasing dose are not clear. While nonlinear partitioning is often assumed when predicting PbB concentrations from chronic exposure, its applicability to a single acute dose is uncertain. Given the choice between two soil lead concentration limits (7,500 mg/kg, assuming nonlinear partitioning, and 6,500 mg/kg assuming linear partitioning), and uncertainty as to which is more correct, the regulatory approach is usually to choose the more conservative of the values. On this basis, a soil concentration limit for lead based on acute toxicity in children of 6,500 mg/kg would be recommended.

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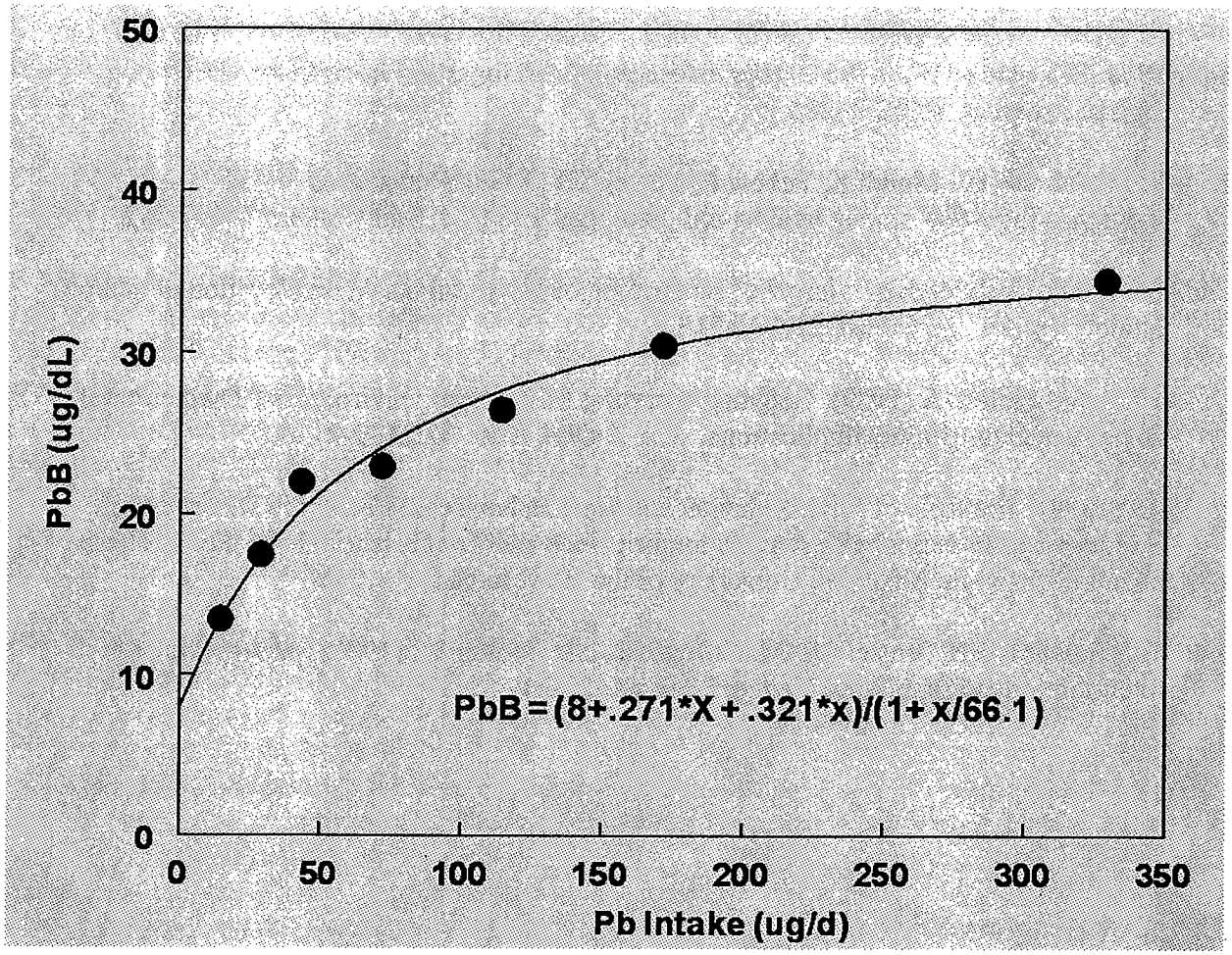

Figure 1. Nonlinear Regression of Lead Intake versus Blood Lead Concentration Data from Sherlock and Quinn

Lead intake and blood lead concentration data from Sherlock and Quinn (1986) were fit to a Michaelis-Menton-type equation as described in the section on "Model Inputs." A baseline blood lead concentration (B) was fixed at 8 μg/dL, based on the y-intercept of data presented in Figure 2 of the Sherlock and Quinn report. Parameters A, P, and M were optimized to provide the best fit of the data.

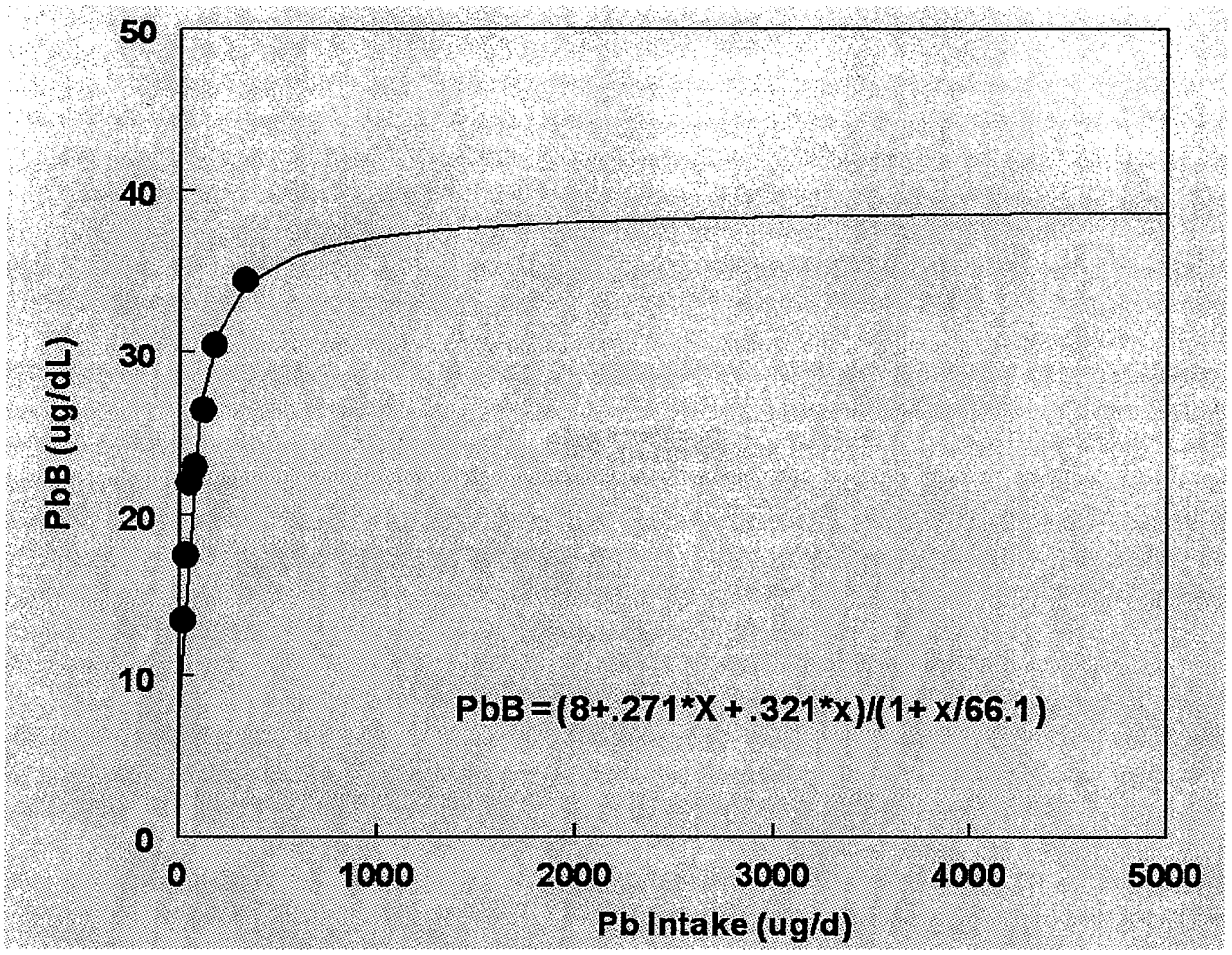

Figure 2. Extrapolation of Nonlinear Regression of Sherlock and Quinn Data to Higher Lead Intakes

Lead intake and blood lead concentration data from Sherlock and Quinn (1986) were fit to a Michaelis-Menton-type equation as in Figure 1. Using parameters (A, P, and M) providing the best fit of the data, the prediction of PbB was extrapolation to an intake of 5,000 μg Pb/day.

QuickTime™ and a
TIFF (PackBits) decompressor
are needed to see this picture.

Figure 3. Regression of Lead Uptake versus Lead Intake from the Mallon Study Using Nonlinear, Power, and Exponential Models.

Lead uptake and lead intake data were obtained from Mallon (1983). The data set was fit separately to a non-linear, an exponential, and a power function. All fits had r^2 values $\geq$ 0.98.

QuickTime™ and a
TIFF (PackBits) decompressor
are needed to see this picture.

Figure 4. Extrapolation of Curve Fits for Mallon Data to Higher Lead Intakes

Lead intake and blood lead concentration data from Mallon (1983) were fit to a nonlinear, exponential, and power functions as in Figure 3. Using parameters providing the best fit of the data, the prediction of PbB was extrapolated to an uptake of 80,000 μg Pb/d.

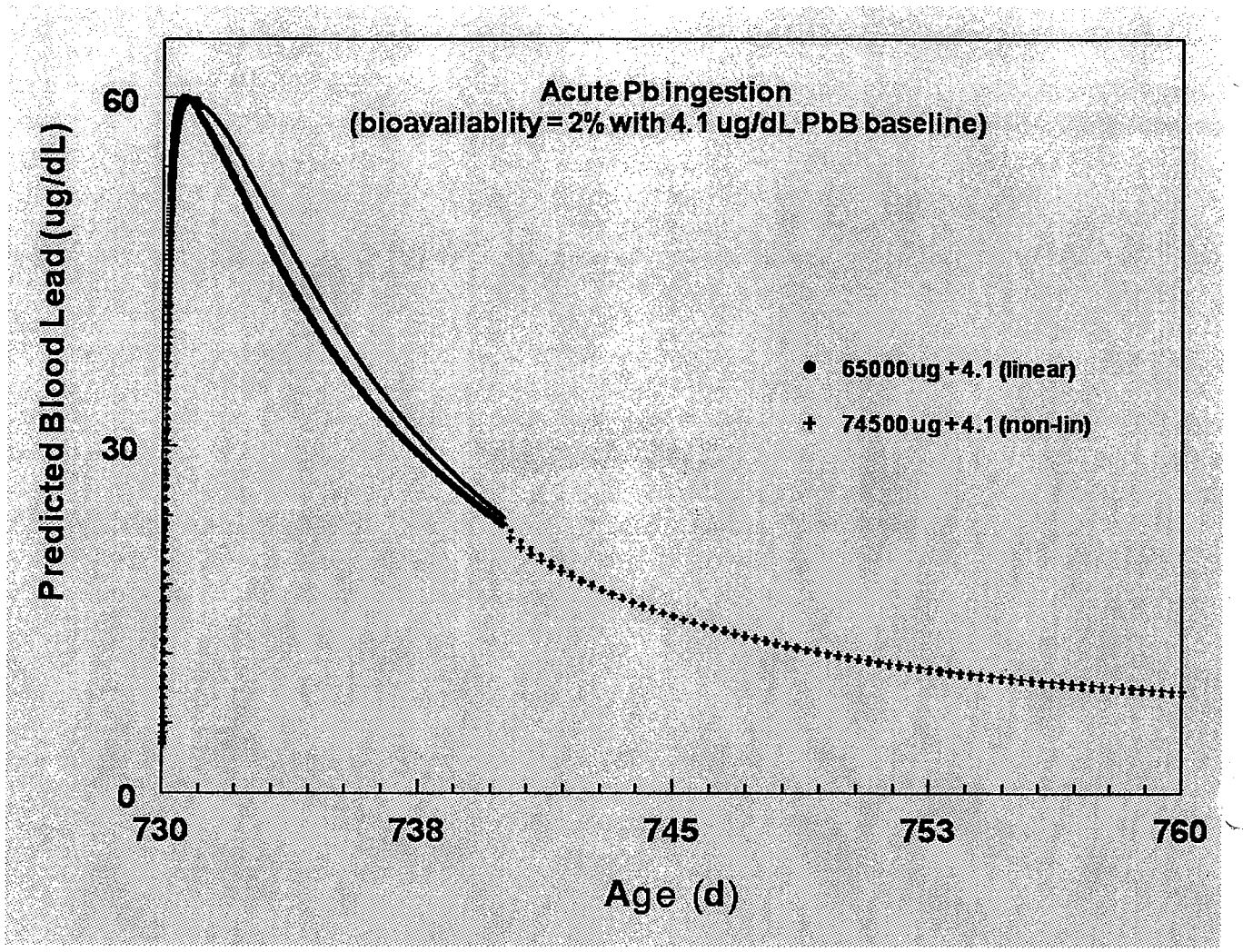

Figure 5. Predicted Blood Lead Concentrations from Ingestion of a Single Dose of Lead from Soil

Blood lead concentrations were predicted using the Leggett model scaled for a 2-year old child. The baseline blood lead concentration was assumed to be 4.1 μg/dL, and the absolute bioavailability of the lead dose from soil was assumed to be 0.02. The blood concentration versus time profiles shown are for a lead dose of 65,000 μg assuming linear partitioning of lead to erythrocytes, and 74,500 μg assuming non-linear partitioning. Both produce a peak blood lead concentration equal to the target limit of 60 μg/dL.

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February 25, 2002

Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
Room 471A, Twin Towers Office Building
2600 Blair Stone Rd.
Tallahassee, FL 32399

Dear Ms. Mora-Applegate:

In previous meetings and communications we have expressed concern regarding the protectiveness of some of the PRGs proposed by Tetra Tech NUS (TTN) to be used at Site 15, Cecil Field. We have presented our opinion that available information does not warrant departure from the default bioavailability assumption for lead, that the rates of soil ingestion proposed by TTN are too low, and that care must be taken when choosing a bioaccumulation factor (BAF) protective of receptors with small home ranges.

In an effort to help the decision process move forward, we think that compromises can be reached on some of the input assumptions and still achieve PRGs protective of the environment. Specifically, within the range of soil ingestion values proposed, we would consider an intermediate soil ingestion rate assumption of 5% for both the mammal and bird to be acceptable. Also, for the mammal, we would agree that a BAF of 0.04 (wet weight) is reasonable. This value was derived from the slope of the insect versus soil lead concentration relationship observed at the site, and its use for calculating a PRG is consistent with the work plan. Also, although not the highest BAF observed at the site, it is within a factor of two of the maximum making it unlikely that intake of lead from diet would be seriously underestimated for any portion of the site. As we indicated previously, a BAF of 0.014 (wet weight) would be appropriate for species with site-wide exposure, such as the bird.

It remains our opinion that a relative bioavailability adjustment is not warranted for lead because there is no indication that dietary lead intake in this case would be significantly different from that observed in the critical study, which was also based on lead incorporated in the feed.

The table below presents the PRGs for birds and mammals that would result from these assumptions. Given the relative precision of such values, the PRGs for lead could be rounded to about 1,000 mg/kg or so for the bird and 2,500 mg/kg for mammals. The change for the bird from the PRG proposed by TTN is not very large. For the mammal, a much lower PRG is calculated. In our opinion, this lower PRG has stronger scientific support. As we discussed in a letter of October 16, 2001, a study involving collection of shrews inhabiting a skeet range has shown a soil-to-kidney BAF of 0.02, which

appeared to be consistent over a broad lead concentration range (Stansley and Roscoe, Arch. Enviorn. Contam. Toxicol. 30:220-226, 1996). Observations from several studies have shown critical renal lead levels for mammals ranging from 25 to 40 µg/g based on the appearance of kidney intranuclear inclusion bodies (Ma, Ecotoxicology of Soil Organisms, Lewis Publishers, 1994). Using the less conservative, upper end of this range, a PRG of 2,000 mg/kg lead can be calculated. Since toxicity studies find that no-effect doses for renal changes are similar to no-effect levels for reproductive and other toxicities, a PRG in this range is needed to address the assessment endpoint in the ecological risk assessment — reproduction in shrews. While this type of information may not be sufficient alone to establish a PRG for the site, it nonetheless indicates that a PRG closer to 2,500 mg/kg is needed.

	TTN (Wet Weight)		Proposed Values (Dry Weight)	
	Mammal (Shrew)	Bird (Mockingbird)	Mammal (Shrew)	Bird (Mockingbird)
LOAEL, mg/kg-d	80	11.3	80	11.3
Body Weight, g	5.5	49	5.5	49
Food Ingestion, g	3.3	23.2	0.957	6.728
Soil Ingestion, %FI	1.50%	2.00%	5.00%	5.00%
Diet Invert Fraction, %FI	100%	50%	100%	75%
BAF	0.014	0.014	0.14 (0.04 ww)	0.05 (0.014 ww)
Relative Bioavailability, %	72%	72%	100%	100%
PRG, mg/kg	**6386**	**1228**	**2446**	**955**

The issue of a not-to-exceed value also came up in discussion at our recent meeting at Cecil Field. Preliminary information presented there indicated that use of the TTN-proposed PRGs could result in soils remaining on site with as much as 39,000 mg/kg lead. We consider that concentration to be too high, based on concern for potential acute toxicity. Unfortunately, information with which to set a non-to-exceed concentration that will avoid acute toxicity is limited. Earthworm mortality studies conducted using soils from this site showed complete mortality at some concentrations, but are compromised by the lack of a coherent dose-response relationship. Insects abundance in soil showed no relationship with lead concentration up to the highest concentration included in the study, 5,780 mg/kg. However, there are no data available that show that insects, which are important prey items for both mammals and birds, are not affected by higher concentrations. In the absence of such data, a protective approach would be to select a concentration of about 5,000 mg/kg lead as a not-to-exceed concentration for the site.

With respect to protection of human health, the PRG will of course be dependent upon the exposure scenario considered. Right now, the only PRG proposed involves extremely limited contact with the site by adults only. It is not clear to us how such limited contact restricted to adults can be

confidently assured. Even if the site is not actively developed for commerce or recreation, a variety of types of contact with the site could occur, conceivably resulting in different levels of risk. Further discussion of this is warranted, in our opinion. Also, as we discussed during our meeting at Cecil Field, the risk management strategy for this site will have to recognize that site contact is not likely to be random, at least if the site remains in its current configuration. Contact with the site will most frequently occur along existing roads and trails. Further, some portions of the site may serve as attractants, particularly for children and adolescents, also leading to non-random contact.

Finally, the question was raised during our meeting whether soil samples in the incinerator areas had been tested for dioxins. Apparently, they have not. This is an oversight that should be corrected before final remedial decisions are made.

Sincerely,

Hugo G. Ochoa, D.V.M., Ph.D.

Stephen M. Roberts, Ph.D.

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October 15, 2001

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Florida Department of Environmental Protection
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Tallahassee, FL 32399

Dear Ms. Mora-Applegate:

In a letter to you dated June 28, 2001, we commented on the *Draft Memorandum for No Further Action, Potential Source of Contamination 44 Ditch from DRMO to Wastewater Treatment Plant* prepared by Tetra Tech NUS, Inc. (TTN). We have received an electronic copy of slides from a presentation by TTN responding to our comments. Although a narrative response would be preferable in terms of clarity, we have tried to interpret the responses from these slides as best we can. We also reviewed an e-mail message from Mike Whitten of TTN, which provides additional explanation for their assumption that incidental soil ingestion constitutes 3% of a shrew's food consumption.

The following summarizes our thoughts on the TTN responses to comments.

Response to Comment 1: Our comment expressed concern regarding the choice of the green heron for modeling exposure of piscivorous birds. This species is not included in the Wildlife Exposure Handbook, and a rather large home range size (100 Ha) had to be estimated by TTN using an allometric relationship for raptors. Other piscivorous birds with much smaller home ranges may utilize the site, and modeling based on the green heron is therefore not very conservative. We recommended instead using information for the Belted kingfisher as representative of avian piscivores. It is a similar-sized bird, but its home range is less than 1/10 of that used by TTN. The response to our comment states that habitat is not conducive of kingfishers, and that "Home range is not an issue because fish in the drainage ditch would only comprise a small portion of either birds

total diet." Under present site conditions, the habitat may not be conducive to kingfishers, but the point is that the home range area chosen for piscivorous birds is too large to be protective for all members of this guild that may use the site. For comparison, recent efforts by the Kennedy Space Center Ecological Risk Assessment Partnering Team has identified a home range of 8.4 Ha based on the much larger Great blue heron. Also, we do not understand the contention that home range area is not important. It is implied that an area use factor will be applied in calculating risks, which requires an estimate of the home range and site size. If some other approach will be used, this should be explained.

Response to Comments 2: In our comment, we suggested using an incidental soil ingestion rate of 10% of diet based work by Beyer et al. (1993) rather than 3%, as originally proposed by TTN. Mike Whitten has received verbal information regarding a study supporting the 3% assumption, apparently based on the stomach contents analysis of wild shrews. We would like to see a write up of this study, but have reservations about its value. Our experience evaluating food habit studies suggest that this approach may be unreliable because of the many factors that influence an animal's gut content at any given time, and because of significant variation among individuals. An analysis of ash residues from scats might yield more representative data, but we are aware of no data published for shrews using this approach.

Our concern that a 3% incidental ingestion rate is too low comes from calculations of soil intake through ingestion of earthworms. Dalby et al. (Soil Biol. Biochem., 28:685-87, 1996) measured soil gut content of four earthworm species by leaving them on wet filter paper for 72 h and then weighing the casts of soil they defecated. From these data, we calculate that the earthworms had 6.98% plus/minus 3.42% (dry-wt/dry-wt) soil in their gut. This is probably a low estimate. Beyer et al. (J.Wildl.Manage., 58:375-82, 1994) state that "Wildlife preying on soil invertebrates or aquatic organisms associated with sediments may ingest much soil or sediment. Earthworms are typically 20-30% soil. Acid-insoluble ash contents of earthworms have been measured as 13 and 24% (this study) and 5-41% (Stafford and McGrath 1986). Soil contents have been estimated at 30% (Beyer et al. 1993) and about 20% (Hendriksen 1991)". Clearly, a shrew diet consisting entirely of earthworms would include more than 3% soil. It could be argued that the shrew diet may not be 100% earthworms, and that consumption of other prey probably involves less incidental soil ingestion. Given the observations by Beyer et al., using a 10% incidental soil ingestion assumption would allow for this to a considerable extent (i.e., it would assume in effect that the diet is no more than about one-third to one-half earthworms, based on a soil content of 20-30%). This is probably as refined an estimate as can be made without a study to determine

dietary composition for animals at the site. Even a 10% incidental soil ingestion estimate is not particularly conservative, since it is based on incidental soil exposure through the diet only, and doesn't consider intake from other activities such as grooming.

Response to Comments 3, 4 & 5 : As best we can determine from the slides, the TTN explanations and proposed adjustments in response to these comments are adequate and sufficient.

We hope these comments are helpful. Should you have any questions, please do not hesitate to contact us.

Sincerely,

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Stephen M. Roberts, Ph.D.

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April 17, 2001

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Florida Department of Environmental Protection
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Tallahassee, FL 32399

Dear Ms. Mora-Applegate:

We have reviewed at your request the March 30, 2001 report "Development of Ecologically-based Remediation Goals for Lead and PAHs in Soil Site 15, Blue 10 Ordinance Disposal Area, Naval Air Station Cecil Field, Jacksonville, Florida" prepared by Tetra Tech NUS. The document presents revised assessment and measurement endpoints, and a working plan for the field activities proposed for Site 15. Briefly, the document proposes generating Preliminary Remediation Goals (PRGs) for lead and PAHs based on the results of 14-day earthworm toxicity tests, and on the calculation of soil lead concentrations protective of birds and mammals. The document also proposes to measure diversity and abundance of soil invertebrates along gradients of lead and PAH concentrations. We have also received response to our comments sent to you in January 29, 2001, and to comments made by the USEPA Environmental Response Team.

In a January 29, 2001 letter we expressed concern about the uncertainty associated with developing PRGs for soil invertebrates based only on earthworm mortality. At that time, we suggested including community endpoints in order to determine directly a concentration with little or no adverse effect on diversity and abundance of soil invertebrates at Site 15. The document under review now proposes to evaluate potential effects to soil invertebrates through earthworm acute toxicity tests, and also by measuring soil invertebrate diversity and abundance. We are pleased that community endpoints have been added, but are unclear how the information will be used. In their response to U.S. EPA comments on the preceding plan, TetraTech states that the community endpoints will be used as part of a "lines of evidence approach" to assess risks. Apparently that doesn't extend to using this information for development of PRGs. According to the revised plan, PRGs protective of soil invertebrates will be based exclusively on the No Observed Effect Concentration (NOEC) and Lowest Observed Effect Concentration (LOEC) calculated from the 14-day earthworm survival tests. This begs the question of what will be done if PRGs from the 14-day earthworm study conflict with results from community endpoint

assessment? That is, what will happen if the concentrations at the PRG appear to produce community effects? We suggest that under these circumstances, community endpoint data should be considered for PRG development. This is based on our previously expressed concern for the relevance of earthworm toxicity tests at this particular site. In making this recommendation, we acknowledge that deriving PRGs from population and community studies may in some cases not be possible due to the inherent large variability of these systems. On the other hand, the closeness of the sampling sites suggests that only microhabitat characteristics may be expected to be of significance. To allow for the possibility of generating PRGs from community endpoints, the site sampling procedure must be extended to record habitat variables such as vegetative cover, amount of duff, soil pH, etc. The data should be formally analyzed by generating three indices: abundance, or total number of individuals; diversity, or total number of genera represented; and biomass, or mass of the invertebrate sample collected. Then, these data can be analyzed in a manner similar to that proposed for the earthworm data, using the habitat variables as independent variables in a stepwise regression analysis.

The previous document considered plants as assessment endpoints, while the current version does not. We found no explanation for this change in the present document. In responses to comments, TetraTech states that Section 2.4.1 would be modified to explain why plants were dropped as an assessment endpoint. This change has not been made. The only discussion of plants in this section is as a pathway of exposure for herbivorous organisms, which is a different subject. If a management decision has been made to exclude an assessment of potential phytotoxicity from the risk assessment, this needs to be clearly addressed up front in the document, not in a section on exposure pathways.

Other points:

1. The document states that soil samples to be used in the earthworm tests and the invertebrate studies will include the first three inches of soil and the lower one-inch of duff. This procedure differs from the one used in the collection of soil samples to delineate lead levels at the site, which were based on soil only. Will PRGs developed from these toxicity tests be expressed based on concentrations in the soil portion of the sample or soil and duff combined? This has important implications in terms of comparing PRGs back to concentration data that currently exist for mineral soil only.

2. As mentioned in previous communications, the use of acute mortality may not be the most sensitive endpoint for lead toxicity to earthworms. The use of other earthworm tests that measure more relevant endpoints, such as growth, would likely minimize the uncertainty of using earthworm tests for this site.

3. The document repeatedly states that if soil samples have less than 197 mg/kg lead, no further analysis will be conducted. We agree with this decision. However, we think that, in order to ensure that the full range of concentrations is assessed for

bioassays, the reference site should be selected to have soil lead concentration within the background range (i.e., below 197 mg/kg).

4. Invertebrate surveys should identify invertebrates to the level of genera. We suggest using a smaller mesh size (1/8 inch) to collect insects such as ants, which are expected to be abundant and are known to be preyed upon by mockingbirds and other wildlife.

5. We do not agree with the adjustment made to the soil ingestion rate of the woodcock to be used for the mockingbird. This procedure assumes that the only route of soil ingestion is through eating earthworms. A look at soil ingestion estimates of non-vermivorous species clearly shows this is not the case. For example, data presented in Beyer *et al.* (1994) show that soil ingestion for wild turkeys is 9.4%. Although much larger, the wild turkey lives on a habitat similar to that of Site 15, and forages like the mockingbird, by visually locating prey in the soil litter and then capturing it with its beak.

We look forward to continue assisting you in this project. Please do not hesitate to contact us if you have any questions.

Sincerely,

Hugo G. Ochoa, D.V.M., Ph.D.

Stephen M. Roberts, Ph.D.

APPENDIX G

COST ESTIMATE

G.1 SOIL ASSUMPTIONS AND CALCULATIONS

G.2 SOIL ALTERNATIVE 2

G.3 SOIL ALTERNATIVE 3A

G.4 SOIL ALTERNATIVE 3B

G.5 SOIL ALTERNATIVE 4A

G.6 SOIL ALTERNATIVE 4B

G.1 SOIL ASSUMPTIONS AND CALCULATIONS

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

Assumptions & Calculations

All Alternatives

#1 Demo/Removal of Incinerator & Rocket Firing Pad
Use demo crew for one day (Means B-13)
Haul metal for disposal, assume 3 tons with no salvage
Foundations (concrete), assume 15 tons

#2 Tortoise Survey
One person inspection of site @ Engineer III

Hours	8	inspection
	10	travel
	8	report
	26	hours at rate of $37.07 per hour
	$964	labor

Hotel & per diem	$200	
Vehicle	$175	
Additional cost for reports & misc	$300	
	$675	materials

Alternative # 2 Soil Cover (30" thick)

#1 Equipment Mob/Demob at 2 times Means Cost
Assume 3 pieces of equipment 1) dozer, 2) excavator/loader, 3) tree removal equipment

#2 Supervision/oversight - say 1 person per week
40 hours * $36.96/hr = about $1,478 per week

#3 PPE cost included with indirect cost

#4 No construction of new temporary haul roads. Remove trees and drive on existing soil.

#5 Cover areas with 30" soil to allow for settlement/erosion.
Area: 7.2 acres = 313,632 sf = 34,848 sy
Volume 30" * 313,632 sf = 784,080 cf = 29,040 cy

#6 Recreational Tree/ Brush Removal
Trees cut flush to ground. Timber to remain on-site. No stump removal or chipping.
Areas with trees for removal 4.4 acres
Assume trees are 12" diameter on 15 ft centers (200 trees per acre)
= 880 trees
Brush clearing for removal 2.8 acres: assume medium density
Time to cut & stockpile tree is about 100 trees per day = 9 days
Assume duff (pine straw) remains in place.

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

#7 Revegetation:

Wetland areas recreation (0.17 acres)	7,405 sf	or	74 csf
Remaining areas	7.2 ac	or	313,632 sf
			34,848 sy
			314 msf

#8 Inspect and repair cover 4 times in year 1.

Inspection: 2 people for 1 day
16 hours * $36.98/hr = $591.68 per inspection or $2,367 per year
Vehicle, reports, etc. = about $500 per inspection or $2,000 per year
Repair: 300 sf for 1st inspection
200 sf for 2nd inspection
100 sf for 3rd inspection
100 sf for 4th inspection
700 sf * 30" = 1750 cf
700 sf = 78 sy = 0.8 msf or 65 cy
Labor: 2 labors @ $9.00/hr * 8 hr/day = $144.00/day
1 operator @ $11.80/hr * 8 hr/day = $94.40/day
assume 2 days for 1st & 2nd inspections & 1 day for 3rd & 4th inspections
$ 144.00
$ 94.40
$ 238.40 * 6 = $ 1,430 per year
Equipment: 1 skid loader @ $375.00/day = $2,250 per year
(includes mob/demob)

#9 Annual Inspection and Repairs (years 2-30)

For inspection: assume 2 people for 1 day. 16 hours * $84.00/hr = about $1,344
Vehicle, reports, etc. = about $500
For repair: assume soil, seed, etc. = about $2,250

#10 Time to Complete Site Work

	Work Days			
Mob	5			
Clear trees & shrubs	5			
Cover & backfill	75			
Site Restoration	5			
Demob	5			
Work Days	95	or	19	Weeks

Assume cover placement to begin 5 days after start of clearing.
Assume site restoration will start during cover placement and continues for 5 days after.

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

Alternative # 3A: Excavation (Recreational), Off-site Treatment and Disposal

#1 Equipment Mob/Demob at 2 times Means Cost
Assume 5 pieces of equipment 1) dozer, 2) excavator, 3) loader, 4) tree removal equipment, 5) revegetation equipment

#2 Supervision/oversight - say 2 persons per week
2 people * 50 hours * $36.96/hr = about $3,696 per week

#3 PPE cost included with indirect cost

#4 No construction of new temporary haul roads. Remove trees and drive on existing soil.

#5 Recreational Tree/ Brush Removal
Trees cut to 1 foot above ground surface. Small trees & branches to be mulch and left on site.
Timber to remain on-site.
Areas with trees for removal 4.4 acres.
Assume trees are 12" diameter on 15 ft centers (200 trees per acre)
= 880 trees & stumps
Time to cut & stockpile tree is about 100 trees per day or 9 days or 2 weeks
Stumps to be chipped & disposed with non-hazardous soil.
Brush clearing for removal 2.8 acres: assume medium density
Time to clear brush is about 1.5 acres per day or 2 days or 0.5 weeks
Assume brush & duff (pine straw) added no volume or weight for disposal.

#6 Excavation, Transportation & Disposal
Allow 10 days of site preparation for trees & soil prior to transport & disposal.
Assume 1 cy of soil = 1.5 tons

Trees	4.4 ac			
Brush	2.8 ac			
	7.2 ac or			
	313,632 sf			
Depth	1 ft			
Excavation volume	313,632 cf	or	11,616 cy	
Additional excavation to 2 foot depth			18 cy	
			11,634 cy	

assume 700 cy is haz & sent to subtitle C landfill	700 cy	or	1,050 tons
the remaining to subtitle D landfill	10,934 cy	or	16,401 tons

Haz truck time: 20 trucks per day with 25 tons per load = 500 tons/day
1,050 tons / 500 = 2 days
Non-haz truck time: 35 trucks per day with 25 tons per load = 875 tons/day
16,401 tons / 875 = 19 days
Total time to excavate/haul/dispose: 10 + 2 + 19 = 31 days or 30 days = 6 weeks

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

#7 Backfill

Backfill to pre-excavation grade.
11,634 cy fill needed.
Time to backfill: assume 50 trucks/day with 16 cy or 800 cy/day.
11,634 cy/day / 800 cy = 14.5 days or 15 days.

#8 Revegetation:

Wetland areas (0.17 acres)	7,405 sf	or	74 csf
All remaining areas	7.2 ac or		
	313,632 sf		
-Wetland areas	7,405 sf		
	306,227 sf	or	34,025 sy
			306 msf

#9 Annual Inspection (years 1-30)
For inspection: assume 2 people for 1 day. 16 hours *84.00/hr = about $1,344
Vehicle, reports, etc. = about $500

#10 Time to Complete Site Work

	Work Days		Work Weeks	
Mob	5		1	
Clear trees & shrubs	5		1	
Excavation Startup	10		2	
Excavation T&D	30		6	
Backfill	15		3	
Site Restoration	10		2	
Demob	5		1	
Work Days	80	or	16	Weeks

Assume excavation to begin 5 days after start of clearing
Assume site restoration will start during excavation and continues for 10 days after.

Alternative # 3B: Excavation (Recreational), On-site Treatment

#1 Equipment Mob/Demob at 2 times Means Cost
Assume 9 pieces of equipment 1) dozer, 2) excavator, 3) 2 loaders,
4) tree removal equipment, 5) 2 trucks, 6) screen plant, 7) revegetation equipment

#2 Supervision/oversight - say 2 persons per week
2 people * 50 hours * $36.96/hr = about $3,696 per week

#3 PPE cost included with indirect cost

#4 No construction of new temporary haul roads. Remove trees and drive on existing soil.

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

#5 Equipment Pad for Soil Washing Equipment
Assume 200' * 200' asphalt pad
Place pad in area following excavation of contaminated soil.
No additional cost for tree/shrub removal.
Add cost to fine grade & place 6" gravel with 3" asphalt
Pad to remain after site work is completed

#6 Unrestricted Tree/Duff/Brush Removal
Trees cut to 1 foot above ground surface. Small trees & branches to be mulch and left on site.
Timber to remain on-site.
Areas with trees for removal 4.4 acres.
Assume trees are 12" diameter on 15 ft centers (200 trees per acre)
= 880 trees & stumps
Time to cut & stockpile tree is about 100 trees per day or 9 days or 2 weeks
Stumps to be chipped & disposed as non-hazardous material.
Assume 1 stump = 3 cf, Stump Volume 3 cf * 880 = 2,640 cf = 98 cy
Brush clearing for removal 2.8 acres: assume medium density
Time to clear brush is about 1.5 acres per day or 2 days or 0.5 weeks
Assume brush adds 1" to surface requiring disposal as non-hazardous material.
2.8 acres = 121,968 sf * 1" =10,164 cf or 376 cy
Assume duff (pine straw) adds 4" to surface requiring disposal as non-hazardous material.
4.4 acres = 191,664 sf * 4" = 63,888 cf or 2,366 cy
Total stumps + brush + duff for disposal
98 + 376 + 2,366 = 2,840 cy
Assume each truck load can haul 30 cy per load and is billed at 25 tons per load.
2,840 / 30 cy per load = 95 loads * 25 tons per load =2,375 tons

#7 Excavation & Transportation to Treatment
Time to excavate controlled by soil washing treatment plus 10 days.
Screen excavated soil at excavation area. Assume large screened material 582 cy (5% of 11,634 cy) or 873 tons dispose as non-haz material.
Assume 7% of the screened and washed excavated material is disposed off-site as wet filter cake.
Volume : 11,052 cy * 7% = 774 cy or 1,161 tons dry or as filter cake (1.35 ton /cy)
3,510 tons. Disposal as haz & send to subtitle C landfill.
Soil from treatment 11,634 cy - 774 cy = 10,860 cy or 16,290 tons

#8 Soil Washing
Costing based on 10/20/03 memo with Brice Environmental.
Cost is about $100 per ton with treatment rate about 50 tons per hour.
Daily Rate: 50 tons per hour = 400 tons per day
11,052 cy or 16,578 ton / 400 = 41.5 days or 45 days

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

#9 Backfill/Site Restoration

Return washed soil to excavation areas. Additional 1,356 cy clean fill needed to be purchased to supplement treatment soil.

Revegetation:

Wetland areas (0.17 acres)	7,405 sf	or	74 csf
All remaining areas	7.2 ac or		
	313,632 sf		
-Wetland areas	7,405 sf		
	306,227 sf	or	34,025 sy
			306 msf

#10 Time to Complete Site Work

	Work Days		Work Weeks
Mob	5		1
Clear Trees & Shrubs	5		1
Excavation Startup	10		2
Excavation, Soil Washing, & Backfill	45		9
Site Restoration	10		2
Demob	10		2
Total	85	or	17

Assume excavation to begin 5 days after start of clearing
Assume backfill occurs during excavation/washing
Assume site restoration will start during excavation/washing and continues for 10 days after.

#11 Annual Inspection (years 1-30)

For inspection: assume 2 people for 1 day. 16 hours * $84.00/hr = about $1,344
Vehicle, reports, etc. = about $500

Alternative # 4A: Excavation (Unrestricted Use), Off-site Treatment and Disposal

#1 Equipment Mob/Demob at 2 times Means Cost
Assume 5 pieces of equipment 1) dozer, 2) excavator, 3) loader, 4) tree removal equipment, 5) revegetation equipment

#2 Supervision/oversight - say 2 persons per week
2 people * 50 hours * $36.96/hr = about $3,696 per week

#3 PPE cost included with indirect cost

#4 No construction of new temporary haul roads. Remove trees and drive on existing soil.

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

#5 Unrestricted Tree/ Brush Removal

Trees cut to 1 foot above ground surface. Small trees & branches to be mulch and left on site.
Timber to remain on-site.
Areas with trees/brush for removal 52.4 acres
Assume trees are 12" diameter on 15 ft centers (200 trees per acre)
= 10,481 trees & stumps
Time to cut & stockpile tree is about 100 trees per day = 105 days or 21 weeks
Stumps to be chipped & disposed with non-hazardous soil.
Brush clearing for removal 21.6 acres: assume medium density
Time to clear brush is about 1.5 acres per day or 15 days or 3 weeks
Assume duff (pine straw) added no volume or weight for disposal.

#6 Excavation, Transportation & Disposal

Allow 10 days of site preparation for trees & soil prior to transport & disposal.
Assume 1 cy of soil = 1.5 tons

Total excavation areas	3,194,914	sf		
Depth	1	ft		
	3,194,914	cf		
TRPH excavation 1' to 2'	500	sf	(25' * 20')	
Depth	1	ft		
	500			
Total excavation volume	3,195,414	cf	=	118,349 cy

assume 10,000 cy is haz & sent to subtitle C landfill	10,000	cy	or	15,000 tons
the remaining to subtitle D landfill	108,349	cy	or	162,523 tons

Haz truck time: 20 trucks per day with 25 tons per load = 500 tons/day
15,000 ton / 500 = 30 days
Non-haz truck time: 35 trucks per day with 25 tons per load = 875 tons/day
162,523 cy / 875 = 186 days
Total time to excavate/haul/dispose: 10 + 186 + 30 = 226 days or 230 days = 46 weeks

#7 Site Restoration

Backfill to pre-excavation grade.
118,345 cy of fill needed.
Time to complete backfill at 800 cy/day
118,345 cy/800 cy/day = 147 days or 150 days
Assume backfill begins during excavation and is completed 50 days after excavation is finished.

Revegetation:

Wetland areas	187,823	sf	or	1,878 csf
			or	188 msf

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

All remaining areas

Brush Areas	21.6	ac		
Tree Areas	52.4	ac		
	74.0	ac or		
	3,223,440	sf		
-Wetland areas	187,823	sf		
	3,035,617	sf	or	337,291 sy
				3,036 msf

#8 Time to Complete Site Work

	Work Days		Work Weeks
Mob	5		1
Clear Trees & Shrubs	5		1
Excavation Startup	10		2
Excavation T&D	230		46
Backfill	50		10
Site Restoration	10		2
Demob	5		1
Total	315	or	63

Assume excavation to begin 5 days after start of clearing
Assume backfill occurs during excavation
Assume site restoration will start during excavation and continues for 10 days after.

Alternative # 4B: Excavation (Unrestricted Use), On-site Treatment

#1 Equipment Mob/Demob at 2 times Means Cost
Assume 9 pieces of equipment 1) dozer, 2) excavator, 3) 2 loaders, 4) tree removal equipment, 5) 2 trucks, 6) screen plant, 7) revegetation equipment

#2 Supervision/oversight - say 2 persons per week
2 people * 50 hours * $36.96/hr = about $3,696 per week

#3 PPE cost included with indirect cost

#4 No construction of new temporary haul roads. Remove trees and drive on existing soil.

#5 Equipment Pad for Soil Washing Equipment
Assume 200' * 200' asphalt pad
Place pad in area following excavation of contaminated soil.
No additional cost for tree/shrub removal.
Add cost to fine grade & place 6" gravel with 3" asphalt
Pad to remain after site work is completed

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

#6 Unrestricted Tree/Duff/Brush Removal

Trees cut to 1 foot above ground surface. Small trees & branches to be mulch and left on site.
Timber to remain on-site.
Areas with trees/brush for removal 52.4 acres
Assume trees are 12" diameter on 15 ft centers (200 trees per acre)
= 10,481 trees & stumps
Time to cut & stockpile tree is about 100 trees per day = 105 days or 21 weeks
Stumps to be chipped & disposed as non-hazardous material.
Assume 1 stump = 3 cf, Stump Volume 3 cf * 10,481 = 31, 443 cf = 1,165 cy.
Brush clearing for removal: 21.6 acres
Time to clear brush is about 1.5 acres per day or 15 days or 3 weeks
Assume brush adds 1" to surface requiring disposal as non-hazardous material.
940,857 sf * 1" = 78,405 cf or 2,904 cy
Assume duff (pine straw) adds 4" to surface requiring disposal as non-hazardous material.
2,282,782 sf * 4" = 760,927 cf or 28,193 cy
Total stumps + brush + duff for disposal
1,165 + 2,904 + 28,193 = 32,262 cy
Assume each truck load can haul 30 cy per load and is billed at 25 tons per load.
32,262 / 30 cy per load = 1,076 loads * 25 tons per load =26,900 tons

#7 Excavation & Transportation to Treatment

Allow 10 days for on-site stockpiling of soils prior to treatment.
Screen excavated soil at excavation area. Assume large screened material 5,917 cy (5% of 118,354 cy) or 8,876 tons dispose as non-haz material.
Assume 7% of the screened and washed excavated material is disposed off-site as wet filter cake.
Volume: 118,354 - 5,917 = 112,432 cy * 7% = 7,870 cy or 11,805 tons dry or as filter cake (1.35 ton /cy) 26,400 tons. Disposal as haz & send to subtitle C landfill.
Time to excavate controlled by soil washing treatment plus 10 days.
Soil from treatment 118,354 cy - 7,870 cy = 110,484 cy or 165,726 tons

#8 Soil Washing

Costing based on 10/20/03 memo with Brice Environmental.
Cost is about $50 per ton with treatment rate about 50 tons per hour.
Daily Rate: 50 tons per hour = 400 tons per day
118,345 cy or 177,531 tons / 400 = 443 days or 450 days

CLIENT: Navy/Cecil Field		JOB NUMBER: N7653
SUBJECT: Site 15 FS		
BASED ON:		DRAWING NUMBER:
BY: TJR Date: 4/05	CHECKED BY: Date:	APPROVED BY: DATE:

#9 Backfill/Site Restoration

Return washed soil to excavation areas. Additional 13,787 cy clean fill needed to be purchased to supplement treatment soil.

Revegetation:

Wetland areas	187,823 sf	or	1,878 csf
		or	188 msf
All remaining areas			
Brush Areas	21.6 ac		
Tree Areas	52.4 ac		
	74.0 ac or		
	3,223,440 sf		
-Wetland areas	187,823 sf		
	3,035,617 sf	or	337,291 sy
			3,036 msf

#10 Time to Complete Site Work

	Work Days		Work Weeks
Mob	5		1
Clear Trees & Shrubs	5		1
Excavation Startup	10		2
Excavation, Soil Washing, & Backfill	450		90
Site Restoration	15		3
Demob	10		2
Total	495	or	99

Assume excavation to begin 5 days after start of clearing

Assume backfill occurs during excavation/washing plus an additional 15 days.

Assume site restoration will start during excavation/washing and continues for 10 days after.

G.2 SOIL ALTERNATIVE 2

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 2: Soil Cover (30" thick)
CAPITAL COST

Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
1 PRE-CONSTRUCTION											
1.1 Prepare Deed Restrictions	100	hr			$32.00		$0	$0	$3,200	$0	$3,200
1.2 Prepare Remedial Action Plan	200	hr			$32.00		$0	$0	$6,400	$0	$6,400
1.3 Post Construction Documents	100	hr			$32.00		$0	$0	$3,200	$0	$3,200
1.4 Tortoise Survey	1	ls		$675.00	$964.00		$0	$675	$964	$0	$1,639
2 MOBILIZATION/DEMOBILIZATION AND FIELD SUPPORT											
2.1 Equipment Mobilization/Demobilization	3	ea			$110.00	$224.00	$0	$0	$330	$672	$1,002
2.2 Professional Oversight (1 person)	19	mwk			$1,478.00		$0	$0	$28,082	$0	$28,082
3 DECONTAMINATION											
3.1 Temporary Decon Pad	1	ls		$550.00	$500.00	$175.00	$0	$550	$500	$175	$1,225
3.2 Decontamination Services	4	mo			$1,500.00	$2,075.00	$0	$0	$6,000	$8,300	$14,300
3.3 Decon Water Storage Tank, 6,000 gallon	4	mo				$645.00	$0	$0	$0	$2,580	$2,580
3.4 Disposal of Decon Waste (liquid & solid)	4	mo	$900.00				$3,600	$0	$0	$0	$3,600
4 INCINERATOR & ROCKET LAUNCHER REMOVAL											
4.1 Demolition & Removal	1	day			$1,612.00	$616.80	$0	$0	$1,612	$617	$2,229
4.2 Transport/Disposal	15	ton	$24.50				$368	$0	$0	$0	$368
5 SITE PREPARATION											
5.1 Clearing - Brush Mowing (medium density)	2.8	ac			$185.00	$153.00	$0	$0	$518	$428	$946
5.2 Clearing - Tree Removal - 12" dia.	880	ea			$3.65	$8.65	$0	$0	$3,212	$7,612	$10,824
6 COVER AND RESTORATION											
6.1 Import Clean Backfill	29,040	cy		$10.10			$0	$293,304	$0	$0	$293,304
6.2 Plastic Netting	34,848	sy		$0.63	$0.26		$0	$21,954	$9,060	$0	$31,015
6.3 Place, Grade, Compact Backfill	29,040	cy			$3.34	$1.46	$0	$0	$96,994	$42,398	$139,392
6.4 Revegetation - soil nutrients	314	msf		$6.65	$0.38	$0.25	$0	$2,088	$119	$79	$2,286
6.5 Revegetation (grasses)	34,848	sy		$0.35	$1.35	$0.22	$0	$12,197	$47,045	$7,667	$66,908
6.6 Revegetation - wetland nutrients	7.4	msf		$8.90	$0.38	$0.25	$0	$66	$3	$2	$71
6.7 Wetland Recreation	74	csf		$19.67	$10.35		$0	$1,456	$766	$0	$2,221
7 SITE INSPECTIONS & MAINTENANCE (ONE YEAR)											
7.1 Inspections (4 times a year)	1	ls		$2,000.00	$2,367.00		$0	$2,000	$2,367	$0	$4,367
7.2 Labor & Equipment	1	ls			$1,430.00	$2,250.00	$0	$0	$1,430	$2,250	$3,680
7.3 Import Clean Backfill	65	cy		$10.10			$0	$657	$0	$0	$657
7.4 Place, Grade, Compact Backfill	65	cy			$3.34	$1.46	$0	$0	$217	$95	$312
7.5 Revegetation - soil nutrients	0.8	msf		$6.65	$0.38	$0.25	$0	$5	$0	$0	$6
7.6 Revegetation (grasses)	78	sy		$0.35	$1.35	$0.22	$0	$27	$105	$17	$150
Subtotal							$3,968	$334,979	$212,125	$72,892	$623,963
Local Area Adjustments							100.0%	115.7%	87.2%	87.2%	
Subtotal							$3,968	$387,570	$184,973	$63,562	$640,072
Overhead on Labor Cost @ 30%									$55,492		$55,492
G & A on Labor Cost @ 10%									$18,497		$18,497
G & A on Material Cost @ 10%								$38,757			$38,757
G & A on Subcontract Cost @ 10%							$397				$397
Total Direct Cost							$4,364	$426,327	$258,962	$63,562	$753,215
Indirects on Total Direct Cost @ 25%											$188,304
Profit on Total Direct Cost @ 10%											$75,321

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 2: Soil Cover (30" thick)
CAPITAL COST

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Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
Total Field Cost											$1,016,840
Contingency on Total Field Cost @ 20%											$203,368
Engineering on Total Field Cost @ 15%											$152,526
TOTAL COST											**$1,372,734**

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 2: Soil Cover (30" thick)
Annual Cost

Item	Item Cost per Year	Item Cost Year 5	Notes
Annual Inspection	$1,844		2 people for 1 day, reports, vehicle, etc.
Cover Repair	$2,250		Soil, Seed, Equipment, etc.
Site Review		$5,500	Preform 5-Year reviews.
TOTALS	$4,094	$5,500	

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 2: Soil Cover (30" thick)
Present Worth Analysis

Year	Capital Cost	Annual Cost	Total Year Cost	Annual Discount Rate at 7%	Present Worth
0	$1,372,734		$1,372,734	1.000	$1,372,734
1		$0	$0	0.935	$0
2		$4,094	$4,094	0.873	$3,574
3		$4,094	$4,094	0.816	$3,341
4		$4,094	$4,094	0.763	$3,124
5		$9,594	$9,594	0.713	$6,841
6		$4,094	$4,094	0.666	$2,727
7		$4,094	$4,094	0.623	$2,551
8		$4,094	$4,094	0.582	$2,383
9		$4,094	$4,094	0.544	$2,227
10		$9,594	$9,594	0.508	$4,874
11		$4,094	$4,094	0.475	$1,945
12		$4,094	$4,094	0.444	$1,818
13		$4,094	$4,094	0.415	$1,699
14		$4,094	$4,094	0.388	$1,588
15		$9,594	$9,594	0.362	$3,473
16		$4,094	$4,094	0.339	$1,388
17		$4,094	$4,094	0.317	$1,298
18		$4,094	$4,094	0.296	$1,212
19		$4,094	$4,094	0.277	$1,134
20		$9,594	$9,594	0.258	$2,475
21		$4,094	$4,094	0.242	$991
22		$4,094	$4,094	0.226	$925
23		$4,094	$4,094	0.211	$864
24		$4,094	$4,094	0.197	$807
25		$9,594	$9,594	0.184	$1,765
26		$4,094	$4,094	0.172	$704
27		$4,094	$4,094	0.161	$659
28		$4,094	$4,094	0.150	$614
29		$4,094	$4,094	0.141	$577
30		$9,594	$9,594	0.131	$1,257
				TOTAL PRESENT WORTH	**$1,431,567**

G.3 SOIL ALTERNATIVE 3A

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE S-3A: Excavation (Recreational), Off-site Treatment and Disposal
CAPITAL COST

Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
1 PRE-CONSTRUCTION											
1.1 Prepare Deed Restrictions	100	hr			$32.00		$0	$0	$3,200	$0	$3,200
1.2 Prepare Remedial Action Plan	200	hr			$32.00		$0	$0	$6,400	$0	$6,400
1.3 Post Construction Documents	100	hr			$32.00		$0	$0	$3,200	$0	$3,200
1.4 Tortoise Survey	1	ls		$675.00	$964.00		$0	$675	$964	$0	$1,639
2 MOBILIZATION/DEMOBILIZATION AND FIELD SUPPORT											
2.1 Equipment Mobilization/Demobilization	5	ea			$110.00	$224.00	$0	$0	$550	$1,120	$1,670
2.2 Professional Oversight (2 person)	16	mwk			$3,696.00		$0	$0	$59,136	$0	$59,136
3 DECONTAMINATION											
3.1 Temporary Decon Pad	1	ls		$550.00	$500.00	$175.00	$0	$550	$500	$175	$1,225
3.2 Decontamination Services	3	mo			$1,500.00	$2,075.00	$0	$0	$4,500	$6,225	$10,725
3.3 Decon Water Storage Tank, 6,000 gallon	3	mo				$645.00	$0	$0	$0	$1,935	$1,935
3.4 Disposal of Decon Waste (liquid & solid)	3	mo	$900.00				$2,700	$0	$0	$0	$2,700
4 INCINERATOR & ROCKET LAUNCHER REMOVAL											
4.1 Demolition & Removal	1	day			$1,612.00	$616.80	$0	$0	$1,612	$617	$2,229
4.2 Transport/Disposal	18	ton	$23.50				$423	$0	$0	$0	$423
5 SITE PREPARATION											
5.1 Clearing - Brush Mowing (medium density)	2.8	ac			$185.00	$153.00	$0	$0	$518	$428	$946
5.2 Clearing/Chipping - Tree Removal - 12" dia.	4.4	ac			$1,250.00	$2,875.00	$0	$0	$5,500	$12,650	$18,150
5.3 Chipping Stumps	880	ea			$19.80	$5.05	$0	$0	$17,424	$4,444	$21,868
5.4 Pre-Excavation Sampling - Lead (1 sample per 2,500 f	30	samp	$55.00				$1,650	$0	$0	$0	$1,650
6 EXCAVATION, TRANSPORTATION AND DISPOSAL OF CONTAMINATED SOIL											
6.1 Excavation - Dozer	55	day			$97.40	$384.30	$0	$0	$5,357	$21,137	$26,494
6.2 Excavation - Backhoe Excavato	55	day			$112.90	$607.15	$0	$0	$6,210	$33,393	$39,603
6.3 Excavation - Track Loader	55	day			$85.90	$461.30	$0	$0	$4,725	$25,372	$30,096
6.4 Transport & Disposal Non-haz (subtitle D)	16,401	ton	$23.50				$385,424	$0	$0	$0	$385,424
6.5 Transport & Disposal Haz (subtitle C)	1,050	ton	$187.95				$197,348	$0	$0	$0	$197,348
6.6 Waste Characterization Test (TCLP), 1 per 1000 cy	12	ea	$800.00	$6.00	$35.00		$9,600	$72	$420	$0	$10,092
7 COVER AND RESTORATION											
7.1 Import Clean Backfill	11,634	cy		$10.10			$0	$117,503	$0	$0	$117,503
7.2 Place, Grade, Compact Backfil	11,634	cy			$3.34	$1.46	$0	$0	$38,858	$16,986	$55,843
7.3 Revegetation - soil nutrients	306	msf		$6.65	$0.38	$0.25	$0	$2,035	$116	$77	$2,228
7.4 Revegetation (grasses)	34,025	sy		$0.35	$1.35	$0.22	$0	$11,909	$45,934	$7,486	$65,328
7.5 Revegetation - wetland nutrients	7.4	msf		$8.90	$0.38	$0.25	$0	$66	$3	$2	$71
7.6 Wetland Restoration	74	csf		$19.67	$10.35		$0	$1,456	$766	$0	$2,221
Subtotal							$597,144	$134,265	$205,891	$132,045	$1,069,346
Local Area Adjustments							100.0%	115.7%	87.2%	87.2%	
Subtotal							$597,144	$155,345	$179,537	$115,143	$1,047,170
Overhead on Labor Cost @ 30%									$53,861		$53,861
G & A on Labor Cost @ 10%									$17,954		$17,954
G & A on Material Cost @ 10%								$15,535			$15,535
G & A on Subcontract Cost @ 10%							$59,714				$59,714
Total Direct Cost							$656,858	$170,880	$251,352	$115,143	$1,194,233
Indirects on Total Direct Cost @ 25%								$42,720	$62,838	$28,786	$134,344
Profit on Total Direct Cost @ 10%											$119,423

Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
Total Field Cost											$1,448,000
Contingency on Total Field Cost @ 20%											$289,600
Engineering on Total Field Cost @ 10%											$144,800
TOTAL COST											**$1,882,401**

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE S-3A: Excavation (Recreational), Off-site Treatment and Disposal
Annual Cost

Item	Item Cost per Year	Item Cost Year 5	Notes
Annual Inspection	$1,844		2 people for 1 day, reports, vehicle, etc.
Site Review		$5,500	Preform 5-Year reviews.
TOTALS	$1,844	$5,500	

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE S-3A: Excavation (Recreational), Off-site Treatment and Disposal
Present Worth Analysis

Year	Capital Cost	Annual Cost	Total Year Cost	Annual Discount Rate at 7%	Present Worth
0	$1,882,401		$1,882,401	1.000	$1,882,401
1		$1,844	$1,844	0.935	$1,724
2		$1,844	$1,844	0.873	$1,610
3		$1,844	$1,844	0.816	$1,505
4		$1,844	$1,844	0.763	$1,407
5		$7,344	$7,344	0.713	$5,236
6		$1,844	$1,844	0.666	$1,228
7		$1,844	$1,844	0.623	$1,149
8		$1,844	$1,844	0.582	$1,073
9		$1,844	$1,844	0.544	$1,003
10		$7,344	$7,344	0.508	$3,731
11		$1,844	$1,844	0.475	$876
12		$1,844	$1,844	0.444	$819
13		$1,844	$1,844	0.415	$765
14		$1,844	$1,844	0.388	$715
15		$7,344	$7,344	0.362	$2,659
16		$1,844	$1,844	0.339	$625
17		$1,844	$1,844	0.317	$585
18		$1,844	$1,844	0.296	$546
19		$1,844	$1,844	0.277	$511
20		$7,344	$7,344	0.258	$1,895
21		$1,844	$1,844	0.242	$446
22		$1,844	$1,844	0.226	$417
23		$1,844	$1,844	0.211	$389
24		$1,844	$1,844	0.197	$363
25		$7,344	$7,344	0.184	$1,351
26		$1,844	$1,844	0.172	$317
27		$1,844	$1,844	0.161	$297
28		$1,844	$1,844	0.150	$277
29		$1,844	$1,844	0.141	$260
30		$7,344	$7,344	0.131	$962
				TOTAL PRESENT WORTH	**$1,917,141**

G.4 SOIL ALTERNATIVE 3B

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 3B: Excavation (Recreational), On-site Treatment
CAPITAL COST

Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
1 PRE-CONSTRUCTION											
1.1 Prepare Deed Restrictions	100	hr			$32.00		$0	$0	$3,200	$0	$3,200
1.2 Prepare Remedial Action Plan	200	hr			$32.00		$0	$0	$6,400	$0	$6,400
1.3 Post Construction Documents	100	hr			$32.00		$0	$0	$3,200	$0	$3,200
1.4 Tortoise Survey	1	ls		$675.00	$964.00		$0	$675	$964	$0	$1,639
2 MOBILIZATION/DEMOBILIZATION AND FIELD SUPPORT											
2.1 Equipment Mobilization/Demobilization	9	ea			$110.00	$224.00	$0	$0	$990	$2,016	$3,006
2.2 Professional Oversight (2 person)	17	mwk			$3,696.00		$0	$0	$62,832	$0	$62,832
2.3 Treatability Study	1	ls	$10,000.00				$10,000	$0	$0	$0	$10,000
3 DECONTAMINATION											
3.1 Temporary Decon Pad	1	ls		$550.00	$500.00	$175.00	$0	$550	$500	$175	$1,225
3.2 Decontamination Services	3	mo			$1,500.00	$2,075.00	$0	$0	$4,500	$6,225	$10,725
3.3 Decon Water Storage Tank, 6,000 gallon	3	mo				$645.00	$0	$0	$0	$1,935	$1,935
3.4 Disposal of Decon Waste (liquid & solid)	3	mo	$900.00				$2,700	$0	$0	$0	$2,700
4 INCINERATOR & ROCKET LAUNCHER REMOVAL											
4.1 Demolition & Removal	1	day			$1,612.00	$616.80	$0	$0	$1,612	$617	$2,229
4.2 Transport/Disposal	18	ton	$23.50				$423	$0	$0	$0	$423
5 SITE PREPARATION											
5.1 Clearing - Brush Mowing (medium density)	2.8	ac			$185.00	$153.00	$0	$0	$518	$428	$946
5.2 Clearing/Chipping - Tree Removal - 12" dia.	4.4	ac			$1,250.00	$2,875.00	$0	$0	$5,500	$12,650	$18,150
5.3 Chipping Stumps	880	ea			$19.80	$5.05	$0	$0	$17,424	$4,444	$21,868
5.4 Pre-Excavation Sampling - Lead (1 sample per 2,500 f	30	samp	$55.00				$1,650	$0	$0	$0	$1,650
5.5 T & D Non-haz Stumps/Duff/Brush	2,375	ton	$23.50				$55,813	$0	$0	$0	$55,813
5.6 Waste Characterization Test (TCLP), 1 per 1000 cy	3	ea	$800.00	$6.00	$35.00		$2,400	$18	$105	$0	$2,523
6 EXCAVATION OF CONTAMINATED SOIL/STUMPS/DUFF											
6.1 Excavation - Dozer (half time)	35	day			$97.40	$384.30	$0	$0	$3,409	$13,451	$16,860
6.2 Excavation - Backhoe Excavato	70	day			$112.90	$607.15	$0	$0	$7,903	$42,501	$50,404
6.3 Excavation - Track Loader	70	day			$85.90	$461.30	$0	$0	$6,013	$32,291	$38,304
6.4 Screen Plant	70	day			$112.90	$399.15	$0	$0	$7,903	$27,941	$35,844
6.5 Transport to Treatment - Off-road truck	70	day			$83.70	$764.45	$0	$0	$5,859	$53,512	$59,371
6.6 T & D Non-haz Screened Material	873	ton	$23.50				$20,516	$0	$0	$0	$20,516
6.7 Waste Characterization Test (TCLP), 1 per 1000 cy	1	ea	$800.00	$6.00	$35.00		$800	$6	$35	$0	$841
7 TREATMENT AND DISPOSAL OF SOIL											
7.1 Equipment Pad	40,000	sf		$1.38	$0.16	$0.20	$0	$55,200	$6,400	$8,000	$69,600
7.2 Soil Washing	16,290	ton	$100.00				$1,629,000	$0	$0	$0	$1,629,000
7.3 Equipment - Wheel Loader	70	day			$85.90	$376.35	$0	$0	$6,013	$26,345	$32,358
7.4 Transport & Disposal Haz Soil (subtitle C)	3,510	ton	$187.95				$659,705	$0	$0	$0	$659,705
7.5 Waste Characterization Test (TCLP), 1 per 1000 cy	1	ea	$800.00	$6.00	$35.00		$800	$6	$35	$0	$841
8 COVER AND RESTORATION											
8.1 Excavation - Dozer (half time)	35	day			$97.40	$384.30	$0	$0	$3,409	$13,451	$16,860
8.2 Transport to Treatment - Off-road truck	70	day			$83.70	$764.45	$0	$0	$5,859	$53,512	$59,371
8.3 Import Clean Backfill	1,356	cy		$10.10			$0	$13,696	$0	$0	$13,696
8.4 Place, Grade, Compact Backfil	1,356	cy			$3.34	$1.46	$0	$0	$4,529	$1,980	$6,509
8.5 Revegetation - soil nutrients	306	msf		$6.65	$0.38	$0.25	$0	$2,035	$116	$77	$2,228
8.6 Revegetation (grasses)	34,025	sy		$0.35	$1.35	$0.22	$0	$11,909	$45,934	$7,486	$65,328
8.7 Revegetation - wetland nutrients	7.4	msf		$8.90	$0.38	$0.25	$0	$66	$3	$2	$71
8.8 Wetland Restoration	74	csf		$19.67	$10.35		$0	$1,456	$766	$0	$2,221
Subtotal							$2,383,806	$85,616	$211,931	$309,034	$2,990,386

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 3B: Excavation (Recreational), On-site Treatment
CAPITAL COST

Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
Local Area Adjustments							100.0%	115.7%	87.2%	87.2%	
Subtotal							$2,383,806	$99,057	$184,804	$269,478	$2,937,144
Overhead on Labor Cost @ 30%									$55,441		$55,441
G & A on Labor Cost @ 10%									$18,480		$18,480
G & A on Material Cost @ 10%								$9,906			$9,906
G & A on Subcontract Cost @ 10%							$238,381				$238,381
Total Direct Cost							$2,622,186	$108,963	$258,725	$269,478	$3,259,352
Indirects on Total Direct Cost @ 25%								$27,241	$64,681	$67,369	$159,292
Profit on Total Direct Cost @ 10%											$325,935
Total Field Cost											$3,744,579
Contingency on Total Field Cost @ 20%											$748,916
Engineering on Total Field Cost @ 5%											$187,229
TOTAL COST											**$4,680,724**

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 3B: Excavation (Recreational), On-site Treatment
Annual Cost

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Item	Item Cost per Year	Item Cost Year 5	Notes
Annual Inspection	$1,844		
Site Review		$5,500	Preform 5-Year reviews.
TOTALS	$1,844	$5,500	

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 3B: Excavation (Recreational), On-site Treatment
Present Worth Analysis

Year	Capital Cost	Annual Cost	Total Year Cost	Annual Discount Rate at 7%	Present Worth
0	$4,680,724		$4,680,724	1.000	$4,680,724
1		$1,844	$1,844	0.935	$1,724
2		$1,844	$1,844	0.873	$1,610
3		$1,844	$1,844	0.816	$1,505
4		$1,844	$1,844	0.763	$1,407
5		$7,344	$7,344	0.713	$5,236
6		$1,844	$1,844	0.666	$1,228
7		$1,844	$1,844	0.623	$1,149
8		$1,844	$1,844	0.582	$1,073
9		$1,844	$1,844	0.544	$1,003
10		$7,344	$7,344	0.508	$3,731
11		$1,844	$1,844	0.475	$876
12		$1,844	$1,844	0.444	$819
13		$1,844	$1,844	0.415	$765
14		$1,844	$1,844	0.388	$715
15		$7,344	$7,344	0.362	$2,659
16		$1,844	$1,844	0.339	$625
17		$1,844	$1,844	0.317	$585
18		$1,844	$1,844	0.296	$546
19		$1,844	$1,844	0.277	$511
20		$7,344	$7,344	0.258	$1,895
21		$1,844	$1,844	0.242	$446
22		$1,844	$1,844	0.226	$417
23		$1,844	$1,844	0.211	$389
24		$1,844	$1,844	0.197	$363
25		$7,344	$7,344	0.184	$1,351
26		$1,844	$1,844	0.172	$317
27		$1,844	$1,844	0.161	$297
28		$1,844	$1,844	0.150	$277
29		$1,844	$1,844	0.141	$260
30		$7,344	$7,344	0.131	$962
				TOTAL PRESENT WORTH	**$4,715,464**

G.5 SOIL ALTERNATIVE 4A

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 4A: Excavation (Unrestricted Use), Off-site Treatment and Disposal
CAPITAL COST

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Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
1 PRE-CONSTRUCTION											
1.1 Prepare Remedial Action Plan	200	hr			$32.00		$0	$0	$6,400	$0	$6,400
1.2 Post Construction Documents	100	hr			$32.00		$0	$0	$3,200	$0	$3,200
1.3 Tortoise Survey	1	ls		$675.00	$964.00		$0	$675	$964	$0	$1,639
2 MOBILIZATION/DEMOBILIZATION AND FIELD SUPPORT											
2.1 Equipment Mobilization/Demobilization	5	ea			$110.00	$224.00	$0	$0	$550	$1,120	$1,670
2.2 Professional Oversight (2 person)	63	mwk			$3,696.00		$0	$0	$232,848	$0	$232,848
3 DECONTAMINATION											
3.1 Equipment Decontamination Pad	1	ls		$6,000.00	$7,225.00	$850.00	$0	$6,000	$7,225	$850	$14,075
3.2 Decontamination Services	12	mo			$1,500.00	$2,075.00	$0	$0	$18,000	$24,900	$42,900
3.3 Decon Water Storage Tank, 6,000 gallon	12	mo				$645.00	$0	$0	$0	$7,740	$7,740
3.4 Disposal of Decon Waste (liquid & solid)	12	mo	$900.00				$10,800	$0	$0	$0	$10,800
4 INCINERATOR & ROCKET LAUNCHER REMOVAL											
4.1 Demolition & Removal	1	day			$1,612.00	$616.80	$0	$0	$1,612	$617	$2,229
4.2 Transport/Disposal	18	ton	$23.50				$423	$0	$0	$0	$423
5 SITE PREPARATION											
5.1 Clearing - Brush Mowing (medium density)	21.6	ac			$185.00	$153.00	$0	$0	$3,996	$3,305	$7,301
5.2 Clearing/Chipping - Tree Removal - 12" dia.	52.4	ac			$1,250.00	$2,875.00	$0	$0	$65,500	$150,650	$216,150
5.3 Chipping Stumps	10,481	ea			$19.80	$5.05	$0	$0	$207,524	$52,929	$260,453
6 EXCAVATION, TRANSPORTATION AND DISPOSAL OF CONTAMINATED SOIL											
6.1 Excavation - Dozer	290	day			$97.40	$384.30	$0	$0	$28,246	$111,447	$139,693
6.2 Excavation - Backhoe Excavator	290	day			$112.90	$607.15	$0	$0	$32,741	$176,074	$208,815
6.3 Excavation - Track Loader	290	day			$85.90	$461.30	$0	$0	$24,911	$133,777	$158,688
6.4 Transport & Disposal Non-haz (subtitle D)	162,523	ton	$23.50				$3,819,291	$0	$0	$0	$3,819,291
6.5 Transport & Disposal Haz (subtitle C)	10,000	ton	$187.95				$1,879,500	$0	$0	$0	$1,879,500
6.6 Waste Characterization Test (TCLP), 1 per 1000 cy	119	ea	$800.00	$6.00	$35.00		$95,200	$714	$4,165	$0	$100,079
7 FILL AND RESTORATION											
7.1 Import Clean Backfill	118,345	cy		$10.10			$0	$1,195,285	$0	$0	$1,195,285
7.2 Place, Grade, Compact Backfill	118,345	cy			$3.34	$1.46	$0	$0	$395,272	$172,784	$568,056
7.3 Revegetation - soil nutrients	3,036	msf		$6.65	$0.38	$0.25	$0	$20,189	$1,154	$759	$22,102
7.4 Revegetation (grasses)	337,291	sy		$0.35	$1.35	$0.22	$0	$118,052	$455,343	$74,204	$647,599
7.5 Revegetation - wetland nutrients	188	msf		$8.90	$0.38	$0.25	$0	$1,673	$71	$47	$1,792
7.6 Wetland Restoration	1,878	csf		$19.67	$10.35		$0	$36,940	$19,437	$0	$56,378
Subtotal							$5,805,214	$1,379,528	$1,509,159	$911,202	$9,605,103
Local Area Adjustments							100.0%	115.7%	87.2%	87.2%	
Subtotal							$5,805,214	$1,596,114	$1,315,987	$794,568	$9,511,883
Overhead on Labor Cost @ 30%									$394,796		$394,796
G & A on Labor Cost @ 10%									$131,599		$131,599
G & A on Material Cost @ 10%								$159,611			$159,611
G & A on Subcontract Cost @ 10%							$580,521				$580,521
Total Direct Cost							$6,385,735	$1,755,726	$1,842,382	$794,568	$10,778,410
Indirects on Total Direct Cost @ 25%			(not including subcontractor cost)					$438,931	$460,595	$198,642	$1,098,169
Profit on Total Direct Cost @ 10%											$1,077,841
Total Field Cost											$12,954,420

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 4A: Excavation (Unrestricted Use), Off-site Treatment and Disposal
CAPITAL COST

Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
Contingency on Total Field Cost @ 20%											$2,590,884
Engineering on Total Field Cost @ 2%											$259,088
TOTAL COST											**$15,804,392**

G.6 SOIL ALTERNATIVE 4B

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 4B: Excavation (Unrestricted Use), On-site Treatment
CAPITAL COST

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Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
1 PRE-CONSTRUCTION											
1.1 Prepare Remedial Action Plan	200	hr			$32.00		$0	$0	$6,400	$0	$6,400
1.2 Post Construction Documents	100	hr			$32.00		$0	$0	$3,200	$0	$3,200
1.3 Tortoise Survey	1	ls		$675.00	$964.00		$0	$675	$964	$0	$1,639
2 MOBILIZATION/DEMOBILIZATION AND FIELD SUPPORT											
2.1 Equipment Mobilization/Demobilization	9	ea			$110.00	$224.00	$0	$0	$990	$2,016	$3,006
2.2 Professional Oversight (2 person)	99	mwk			$3,696.00		$0	$0	$365,904	$0	$365,904
2.3 Treatability Study	1	ls	$10,000.00				$10,000	$0	$0	$0	$10,000
3 DECONTAMINATION											
3.1 Equipment Decontamination Pad	1	ls		$6,000.00	$7,225.00	$850.00	$0	$6,000	$7,225	$850	$14,075
3.2 Decontamination Services	12	mo			$1,500.00	$2,075.00	$0	$0	$18,000	$24,900	$42,900
3.3 Decon Water Storage Tank, 6,000 gallon	12	mo				$645.00	$0	$0	$0	$7,740	$7,740
3.4 Disposal of Decon Waste (liquid & solid)	12	mo	$900.00				$10,800	$0	$0	$0	$10,800
4 INCINERATOR & ROCKET LAUNCHER REMOVAL											
4.1 Demolition & Removal	1	day			$1,612.00	$616.80	$0	$0	$1,612	$617	$2,229
4.2 Transport/Disposal	18	ton	$23.50				$423	$0	$0	$0	$423
5 SITE PREPARATION											
5.1 Clearing - Brush Mowing (medium density)	21.6	ac			$185.00	$153.00	$0	$0	$3,996	$3,305	$7,301
5.2 Clearing/Chipping - Tree Removal - 12" dia.	52.4	ac			$1,250.00	$2,875.00	$0	$0	$65,500	$150,650	$216,150
5.3 Chipping Stumps	10,481	ea			$19.80	$5.05	$0	$0	$207,524	$52,929	$260,453
5.4 T & D Non-haz Stumps/Duff/Brush	26,900	ton	$23.50				$632,150	$0	$0	$0	$632,150
5.5 Waste Characterization Test (TCLP), 1 per 1000 cy	33	ea	$800.00	$6.00	$35.00		$26,400	$198	$1,155	$0	$27,753
6 EXCAVATION OF CONTAMINATED SOIL/STUMPS/DUFF											
6.1 Excavation - Dozer (half time)	248	day			$97.40	$384.30	$0	$0	$24,155	$95,306	$119,462
6.2 Excavation - Backhoe Excavator	495	day			$112.90	$607.15	$0	$0	$55,886	$300,539	$356,425
6.3 Excavation - Track Loader	495	day			$85.90	$461.30	$0	$0	$42,521	$228,344	$270,864
6.4 Screen Plant	495	day			$112.90	$399.15	$0	$0	$55,886	$197,579	$253,465
6.5 Transport to Treatment - Off-road truck	495	day			$83.70	$764.45	$0	$0	$41,432	$378,403	$419,834
6.6 T & D Non-haz Screened Material	8,876	ton	$23.50				$208,586	$0	$0	$0	$208,586
6.7 Waste Characterization Test (TCLP), 1 per 1000 cy	6	ea	$800.00	$6.00	$35.00		$4,800	$36	$210	$0	$5,046
7 TREATMENT OF SOIL											
7.1 Equipment Pad	40,000	sf		$1.38	$0.16	$0.20	$0	$55,200	$6,400	$8,000	$69,600
7.2 Soil Washing	177,531	ton	$50.00				$8,876,550	$0	$0	$0	$8,876,550
7.3 Equipment - Wheel Loader	495	day			$85.90	$376.35	$0	$0	$42,521	$186,293	$228,814
7.4 Transport & Disposal Haz Soil (subtitle C)	26,400	ton	$187.95				$4,961,880	$0	$0	$0	$4,961,880
7.5 Waste Characterization Test (TCLP), 1 per 1000 cy	20	ea	$800.00	$6.00	$35.00		$16,000	$120	$700	$0	$16,820
8 COVER AND RESTORATION											
8.1 Excavation - Dozer (half time)	248	day			$97.40	$384.30	$0	$0	$24,155	$95,306	$119,462
8.2 Transport to Treatment - Off-road truck	495	day			$83.70	$764.45	$0	$0	$41,432	$378,403	$419,834
8.3 Import Clean Backfill	13,781	cy		$10.10			$0	$139,188	$0	$0	$139,188
8.4 Place, Grade, Compact Backfill	13,781	cy			$3.34	$1.46	$0	$0	$46,029	$20,120	$66,149
8.5 Revegetation - soil nutrients	3,036	msf		$6.65	$0.38	$0.25	$0	$20,189	$1,154	$759	$22,102
8.6 Revegetation (grasses)	337,291	sy		$0.35	$1.35	$0.22	$0	$118,052	$455,343	$74,204	$647,599
8.7 Revegetation - wetland nutrients	188	msf		$8.90	$0.38	$0.25	$0	$1,673	$71	$47	$1,792
8.8 Wetland Restoration	1,878	csf		$19.67	$10.35		$0	$36,940	$19,437	$0	$56,378
Subtotal							$14,747,589	$378,272	$1,539,799	$2,206,310	$18,871,970

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
SITE 15
ALTERNATIVE 4B: Excavation (Unrestricted Use), On-site Treatment
CAPITAL COST

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Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
Local Area Adjustments							100.0%	115.7%	87.2%	87.2%	
Subtotal							$14,747,589	$437,660	$1,342,705	$1,923,903	$18,451,857
Overhead on Labor Cost @ 30%									$402,811		$402,811
G & A on Labor Cost @ 10%									$134,270		$134,270
G & A on Material Cost @ 10%								$43,766			$43,766
G & A on Subcontract Cost @ 10%							$1,474,759				$1,474,759
Total Direct Cost							$16,222,348	$481,427	$1,879,787	$1,923,903	$20,507,464
Indirects on Total Direct Cost @ 25%		(not including subcontractor cost)						$120,357	$469,947	$480,976	$1,071,279
Profit on Total Direct Cost @ 10%											$2,050,746
Total Field Cost											$23,629,489
Contingency on Total Field Cost @ 20%											$4,725,898
Engineering on Total Field Cost @ 2%											$472,590
TOTAL COST											**$28,827,977**