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REMEDIAL INVESTIGATION OPERABLE UNIT 8 (OU8) NAS CECIL FIELD FL
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REMEDIAL INVESTIGATION
OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

UNIT IDENTIFICATION CODE: N60200
CONTRACT NO. N62467-89-D-0317/090

FEBRUARY 1996

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORTH CHARLESTON, SOUTH CAROLINA
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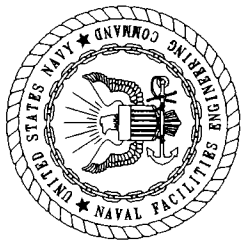

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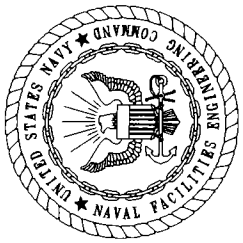

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REMEDIAL INVESTIGATION
OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Unit Identification Code: N60200

Contract No. N62467-89-D-0317/090

Prepared by:

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Prepared for:

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February 1996

CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/090 are complete and accurate and comply with all requirements of this contract.

DATE: February 14, 1996

NAME AND TITLE OF CERTIFYING OFFICIAL: Rao V.R. Angara
Task Order Manager

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Project Technical Lead

(DFAR 252.227-7036)

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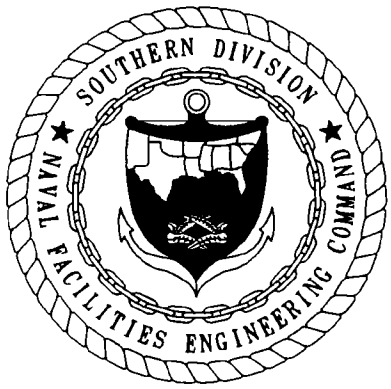

FOREWORD

The Department of the Navy developed the Installation Restoration (IR) program to locate, identify, and remediate environmental contamination from the past disposal of hazardous materials at Navy and Marine Corps installations. The Navy IR program follows the Department of Defense Environmental Restoration Program mandated by the Superfund Amendments and Reauthorization Act of 1986 to address waste sites that may pose a threat to human health or the environment.

The IR program consists of Preliminary Assessment and Site Inspection, Remedial Investigation and Feasibility Study (RI/FS), and Remedial Design and Remedial Action at sites where chemicals were possibly disposed. The Preliminary Assessment and Site Inspection identifies the presence of pollutants. The RI/FS analyzes the nature and extent of contamination and determines the optimum remedial solution. The Remedial Design and Remedial Action complete the implementation of the solution.

Previous investigations have determined that Naval Air Station (NAS) Cecil Field has 18 waste sites that may pose a threat to human health or the environment. Therefore, an RI/FS will be performed to address the extent, magnitude, and impact of possible contamination at these waste sites.

This Remedial Investigation report for Operable Unit 8 summarizes the field program completed at Site 3 and presents the findings and conclusions reached during the investigation.

Questions regarding this report should be addressed to the Commanding Officer, Code OOB, P.O. Box 111, NAS Cecil Field, Jacksonville, Florida 32215-0111.

EXECUTIVE SUMMARY

ABB Environmental Services, Inc. has been contracted by the Southern Division, Naval Facilities Engineering Command to complete a Remedial Investigation (RI) and Feasibility Study (FS) for Operable Unit (OU) 8, the Oil and Sludge Disposal Pit, at Naval Air Station (NAS) Cecil Field. The objectives of the RI (initiated in 1991) were (1) to characterize the nature and extent of contamination associated with OU 8 and (2) to gather sufficient data to complete the Baseline Risk Assessment (BRA) and FS of remedial alternatives. NAS Cecil Field is located in western Duval County, Florida, approximately 14 miles west of Jacksonville, Florida. This document contains only the RI; the BRA and the FS have been completed under separate cover. A summary of the Baseline Risk Assessment is provided in Chapter 6.0.

OU 8 was investigated from 1985 to 1994 to refine and quantify the conceptual understanding of site conditions resulting from wastes placed in the disposal pits. This RI relies on comprehensive measurements, analysis, and interpretation of site conditions including the use of groundwater, surface and subsurface soil, surface water, and sediment samples. These measurements and samples were collected over a 20 acre study area to describe the areal and vertical distribution of contaminants. Based on these investigation results, health and ecological risks posed by the detected contaminants were evaluated.

OU 8 was reportedly used to dispose of liquid wastes and sludge from the mid-1950s until 1975, although review of aerial photographs suggests the area was not disturbed prior to 1960. Liquid wastes including fuels, oils, solvents, paint, and paint strippers were typically taken to the site by the individual generators (i.e., the fuel farm, the Public Works, Aircraft Maintenance Department and the squadrons) in bowsers (trailer mounted tanks) or 55-gallon drums, drained into the pit, and allowed to seep into the soil or evaporate. The pit wastes were burned when the liquid level approached the top. This burning procedure was repeated approximately once every three months by the fire department. No records were kept on disposal practices and access to the site was uncontrolled; therefore, the amount of the liquid wastes disposed at OU 8 is unknown.

On February 8, 1992 a Navy helicopter crashed into a wooded area located approximately 800 feet east of the OU 8 source area. The helicopter had a fuel capacity of between 1,800 and 2,000 gallons and ignited on impact. Although the crash site is not part of the OU 8 source area, it is within the OU 8 study area, and results and conclusions for the crash site have been included in this report.

The former waste disposal activities appears to be responsible for the detection of certain volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and inorganics in the soil and groundwater at OU8. The contaminants which appear associated with disposal activities and are observed to migrate from the pit area via groundwater are VOCs (chlorinated solvents) and SVOCs (dichlorobenzenes). The most prevalent of these contaminants are the chlorinated solvents trichloroethene (TCE) and its transformation products 1,1-dichloroethene (1,1-DCE) and 1,2-dichloroethene (1,2-DCE). The presence of transformation products of TCE (1,2-DCE and 1,1-DCE) indicates the existence of favorable environmental and microbial conditions (e.g. nutrients, organic carbon, redox potential) at OU8.

Based on the results of the confirmatory soil sampling and analysis, it is estimated that a TCE concentration of 146 $\mu g/kg$ (from only two TCE detections in the vadose zone soil) remains in the vadose soil over an area of approximately 8,000 ft^2. It is further estimated that the TCE concentration of the leachate generated from the infiltration of precipitation through these soil would take approximately 23 years so that its concentration after mixing with the top 10 feet of the Surficial Aquifer, would be less than 5 $\mu g/\ell$, the drinking water maximum contaminant level (MCL) for TCE.

The groundwater contaminant plume is currently discharging to Rowell Creek approximately 1,400 feet downgradient of the disposal pit. Based on the estimated groundwater flow rate of 88 feet per year, groundwater from beneath the disposal pit area would have reached Rowell Creek in the early 1970's, approximately 16 years after disposal operations began. Considering retardation but ignoring microbial and abiotic degradation processes, it will take approximately 35 years for the groundwater to naturally flush contaminants to concentrations below drinking water criteria. Including the 23 years estimated above, it would take approximately 58 years for the contaminants to leach naturally from the soil and flush naturally from the aquifer.

All dissolved groundwater contaminants originating from the disposal pit area would be subject to a similar hydrologic transport as TCE. Dilution on the order of 99.2 percent diluted (diluted 133 times) or more is estimated for groundwater contaminants upon their discharging to and mixing with the surface water of Rowell Creek.

A BRA was completed at OU 8 to characterize the risks associated with exposures to site-related contaminants at OU 8 for human health and ecological receptors (ABB-ES, 1995).

The cancer risk estimate for the surficial aquifer under future land use conditions (adult resident using contaminated groundwater as a potable water supply) was 3 in 1,000 (greater than the USEPA acceptable range of 1 in 10,000 to 1 in 1,000,000). The major contaminant contributing cancer risk was 1,1-dichloroethene. The noncancer risk estimate (HI) for potable use of the surficial aquifer is 20 (greater than the USEPA and FDEP threshold of 1). Major contributors to this HI are trichloroethene, 1,2-dichloroethene, 1,2-dichlorobenzene, and 1,1-dichloroethene.

No risks were identified for terrestrial plant and invertebrate exposures to surface soil or for terrestrial wildlife resulting from exposures to selected contaminants in surface soil, surface water, and sediment. Results of laboratory groundwater toxicity testing indicate that exposure to undiluted groundwater from OU 8 may result in reduced survival and reproduction for the water flea and the fathead minnow. When groundwater was diluted approximately 20-fold (compared to the actual 133-fold dilution into Rowell Creek), little toxicity was observed in the water flea or fathead minnow. Analysis of the toxicity testing data supports the interpretation that groundwater discharging to Rowell Creek poses little risk to aquatic receptors.

Conclusions regarding the physical characteristics of the OU 8 study area and the contaminants detected in surface water, sediment, surface soil, subsurface soil, and groundwater include:

- Sufficient information was collected in the field or compiled from historical records to identify and assess human and ecological risks, extent and nature of contamination, and remedial alternatives for OU 8 as a result of waste disposal operations from the mid-1950's to 1975.

- Contaminant distribution from the waste disposal pit area is well defined in surface and subsurface soil at OU 8 and does not pose a risk to human or ecological receptors.

- Disposal pit area wastes are expected to continue to leach contamination from vadose soil to groundwater for a period of approximately 23 years.

- Groundwater from the disposal pit migrates and is interpreted to discharge into Rowell Creek.

- Wastes deposited in the former disposal pit have contaminated underlying groundwater at OU 8 sufficiently to pose a health risk if groundwater is used as a future potable (drinking) water supply. Use of untreated groundwater as a water supply poses an unacceptable carcinogenic risk of 3 in 1000 and a non-carcinogenic risk of 20.

- It is expected that a period of 58 years will be required for contaminants to leach naturally from soil and flush naturally from the aquifer.

- There are no unacceptable human health or ecological risks associated with OU 8 for exposure to wetlands or to Rowell Creek surface water and sediments.

- OU 8 is located in a low traffic area along perimeter road and it is not certain at this time what the land use will be after base closure. The site is not served by potable water or other utilities which are available to the east in the industrialized part of NAS Cecil Field.

Based on the evaluation of data gathered during the OU 8 RI, the following data limitations were identified:

- The distribution of groundwater contaminants between the source area monitoring wells and the area near the helicopter crash site (represented by the cluster of monitoring wells containing CEF-3-28S, CEF-3-29D, and CEF-3-30DD) is based on the groundwater screening program (using temporary well screens and field laboratory analysis) and not monitoring wells.

Based on the evaluation of data gathered during the OU 8 RI, no data gaps were identified that would prevent the development and selection of a remedial action.

Based on the evaluation of data gathered during the OU 8 RI, it is recommended that a program should be instituted to prevent risks associated with possible future use of OU 8 groundwater as a potable water supply.

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GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
ASTM	American Society for Testing and Materials
bls	below land surface
BRA	Baseline Risk Assessment
BRAC	Base Realignment and Closure
CAP	Contamination Assessment Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLP	Contract Laboratory Program
CRDL	contract required detection limit
°C	degrees Celsius
°F	degrees Fahrenheit
DCA	dichloroethane
DCB	dichlorobenzene
DCE	dichloroethene
DERP	Defense Environmental Restoration Program
EBS	Environmental Baseline Survey
ECD	electron capture detector
ESE	Environmental Science and Engineering, Inc.
FDEP	Florida Department of Environmental Protection (as of 7/93)
FFA	Federal Facility Agreement
FID	flame ionization detector
FOTW	Federally Owned Treatment Works
ft/day	feet per day
FY	Fiscal Year
GC	gas chromatograph
GPR	ground penetrating radar
GPS	global positioning system
HDPE	high density polyethylene
HSA	hollow stem auger
IAS	Initial Assessment Study
IDW	investigation-derived wastes
IR	Installation Restoration
IZS	intermediate zone of the surficial aquifer
LZS	lower zone of the surficial aquifer
mg/kg	milligrams per kilogram
µg/kg	micrograms per kilogram
µg/ℓ	micrograms per liter

GLOSSARY (Continued)

NACIP	Navy Assessment and Control of Installation Pollutants
NAS	Naval Air Station
NEESA	Naval Energy and Environmental Support Activity
NFD	Naval Fuel Depot
NGVD	National Geodetic Vertical Datum of 1929
NPL	National Priority List
NSF	National Sanitation Foundation
NTU	nephelometric turbidity units
OLF	Outlying Landing Field
OU	Operable Unit
OVA	organic vapor analyzer
PCA	preliminary contamination assessment
PCAR	Preliminary Contamination Assessment Report
PCE	perchloroethylene (tetrachloroethene preferred)
POL	petroleum, oils, and lubricants
PSC	Potential Source of Contamination
PVC	polyvinyl chloride
RAOs	remedial action objectives
RCRA	Resource Conservation and Recovery Act
RFI	Resource Conservation and Recovery Act (RCRA) Facility Investigation
RI	Remedial Investigation
RI/FS	Remedial Investigation and Feasibility Study
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act
SMP	Site Management Plan
SOUTHNAV-FACENGCOM	Southern Division, Naval Facilities Engineering Command
SVOC	semivolatile organic compound
TAL	target analyte list
TCA	trichloroethane
TCE	trichloroethene (preferred rather than trichloroethylene)
TCL	target compound list
TMSS	Technical Memorandum for Supplemental Sampling
TOC	top of casing
TRPH	total recoverable petroleum hydrocarbons
USC	United States Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UZH	upper zone of the Hawthorn
UZS	upper zone of the surficial aquifer
VFR	visual flight rules
VLF	very low frequency
VOC	volatile organic compound

1.0 INTRODUCTION

ABB Environmental Services, Inc. (ABB-ES), has been contracted by the Department of the Navy, Southern Division, Naval Facilities Engineering Command (SOUTHNAVFAC-ENGCOM), to conduct a Remedial Investigation/Feasibility Study (RI/FS) for Operable Unit (OU) 8 at Naval Air Station (NAS) Cecil Field in Jacksonville, Florida (Figure 1-1). Operable Unit (OU) 8 consists of Site 3, the oil and sludge disposal pit (Figure 1-2). The RI/FS is being completed under contract number N62467-89-D-0317-90 as part of the Navy's Installation Restoration (IR) program. This report addresses the results and conclusions of the Remedial Investigation (RI) including a summary of the human health and ecological baseline risk assessment (Chapter 6). The Baseline Risk Assessment (BRA) is reported separately (ABB-ES, 1995a).

1.1 PURPOSE OF REPORT. This report documents the results of the OU 8 RI at NAS Cecil Field. The RI includes field and laboratory measurements; analysis of the observations; a description of the conceptual understanding of the type, extent, transport and fate of hazardous substances released at the site; and a summary assessment of risks to human health and the environment posed by the identified substances. Information gathered during this RI and during previous studies has facilitated a comprehensive evaluation of both the physical characteristics and environmental contamination at OU 8. The physical and chemical database for OU 8 is used to support the BRA and FS (ABB-ES, 1995b). The RI, BRA, and FS for OU 8 are reported separately.

The goals of the RI/FS are to assess the extent, magnitude, and impact of contamination at OU 8, to qualitatively and quantitatively assess the risks posed to human health and the environment, and to develop appropriate remedial action if the site poses a threat to human health and/or the environment. The RI/FS emphasizes the collection of sufficient information to complete the BRA and the FS.

The RI process serves as the mechanism for data collection to identify source and migration pathway characteristics and for collection of other information required for the BRA and FS processes. The BRA and FS processes use the information collected in the RI to assess risks to human health and the environment, develop remedial action objectives (RAOs), and to develop, screen, and evaluate potential remedial alternatives.

The objectives of the NAS Cecil Field RI/FS investigation at OU 8 include the following:

- assess the nature and extent of contamination in site soil and groundwater, and in the surface water and sediment in Rowell Creek, east of OU 8;
- gather sufficient information to complete the human health and ecological risk assessments;
- collect sufficient data to complete an FS of remedial alternatives.

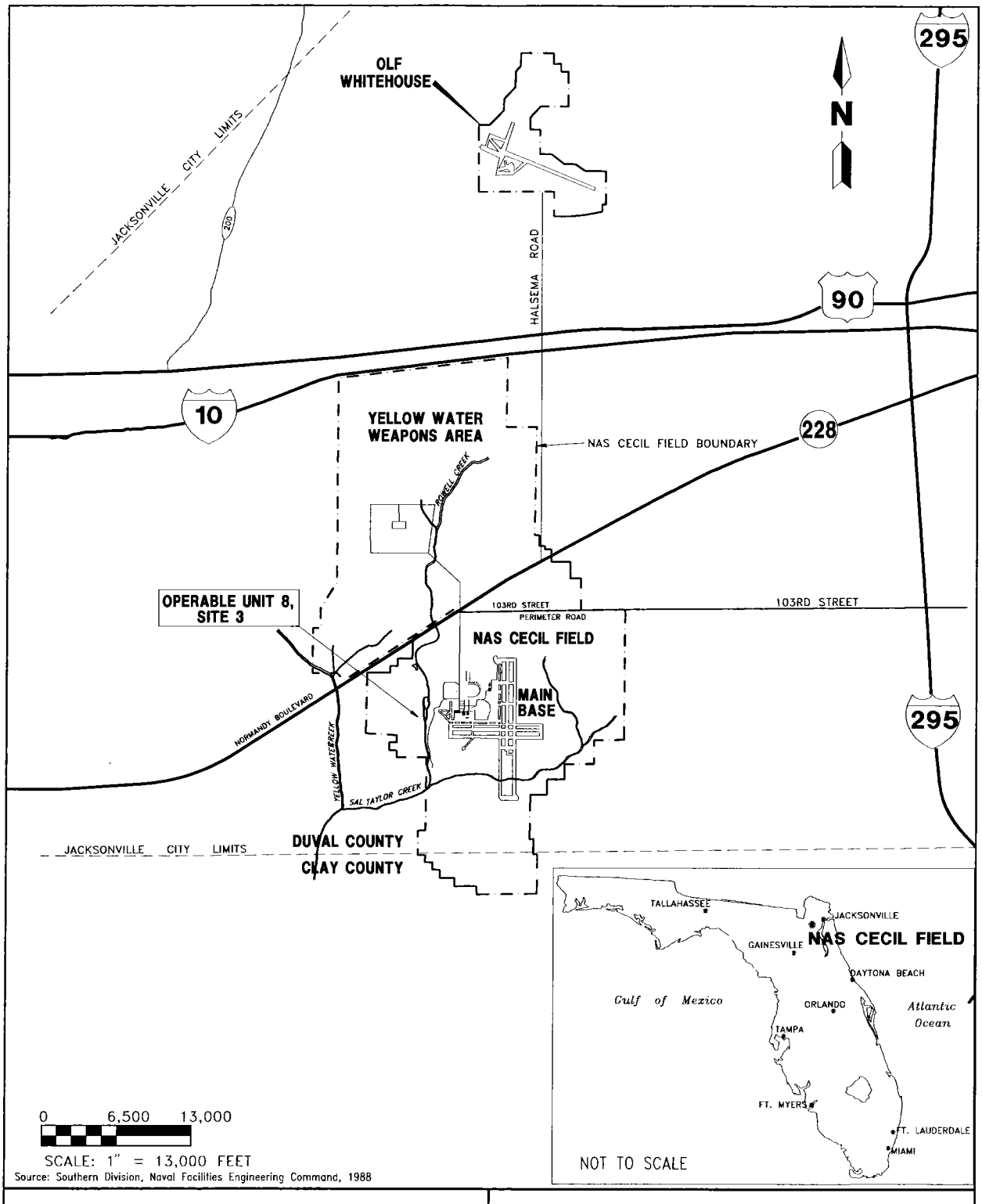

FIGURE 1-1
GENERAL LOCATION MAP

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REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

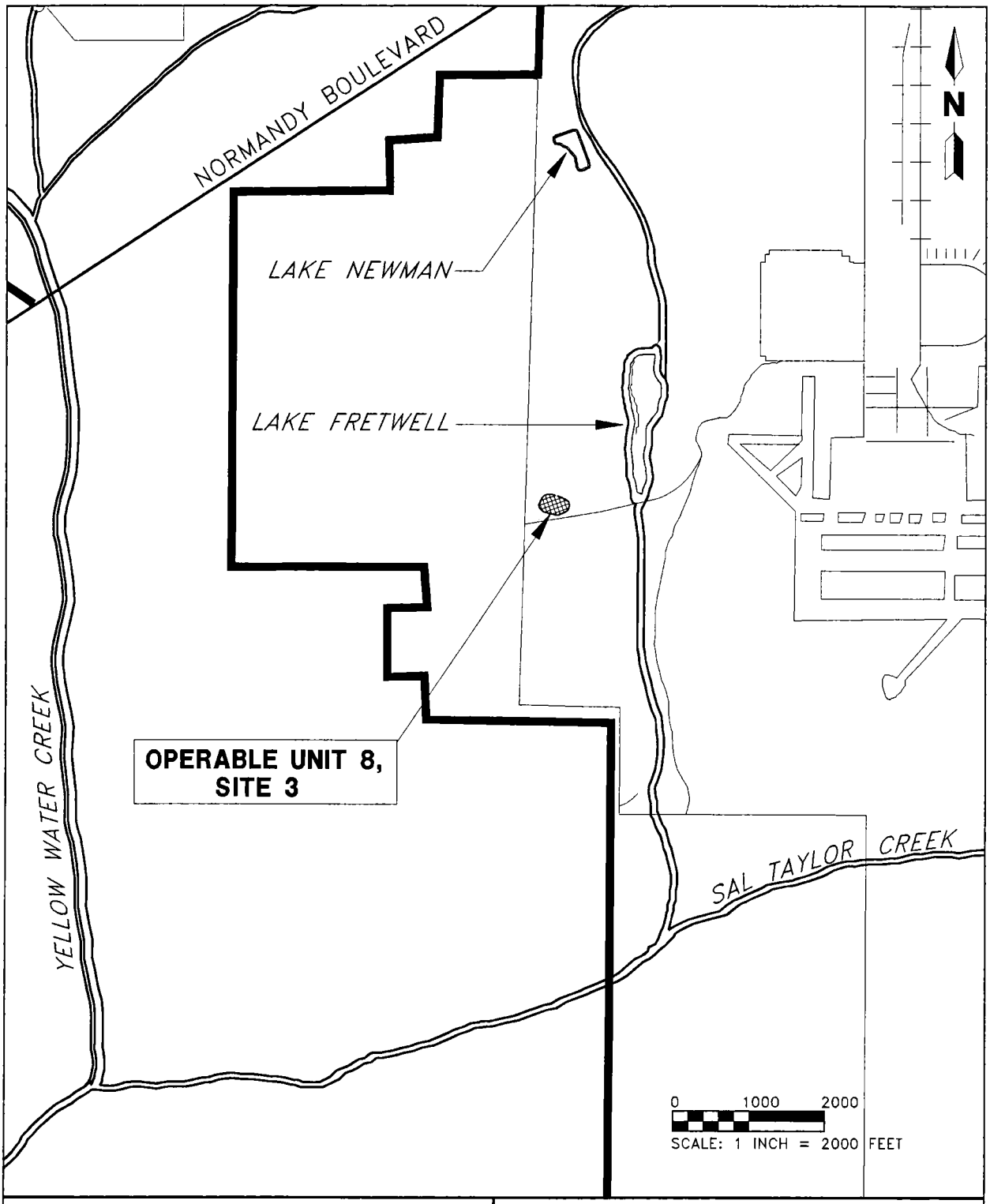

FIGURE 1-2
SITE LOCATION MAP

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REMEDIAL INVESTIGATION,
OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

The RI/FS is being performed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and the Superfund Amendments and Reauthorization Act (SARA) of 1986, which established a series of programs for the cleanup of hazardous waste disposal and spill sites nationwide. One of those programs, the Defense Environmental Restoration Program (DERP), is codified in SARA Section 211 (10 U.S. Code [USC] 2701). The Navy's Installation Restoration (IR) program is a component of the DERP.

1.2 SITE BACKGROUND. The mission of NAS Cecil Field (the facility) and available background information for the facility and OU 8 are presented in this section. A general description of NAS Cecil Field is given in Section 1.2.1. Section 1.2.2 summarizes available historical information for the facility and OU 8. Section 1.2.3 provides a remedial review and status of NAS Cecil Field.

1.2.1 Facility Description The official mission of NAS Cecil Field is to provide facilities, services, and material support for the operation and maintenance of naval weapons, aircraft, and other units of the operating forces as designated by the Chief of Naval Operations. Some of the tasks required to accomplish this mission include:

- operation of fuel storage facilities,
- provision of facilities and performance of organizational level aircraft maintenance,
- provision of facilities and performance of intermediate level aircraft maintenance, and
- maintenance and operation of an engine repair facility and test cells for designated turbo-jet engines.

NAS Cecil Field comprises 11 departments and is host to more than 40 tenant commands (SOUTHNAVFACENGCOM, 1989). The facility currently supports a work force of approximately 11,000 civilian and military personnel and can accommodate approximately 3,500 residents in base quarters and housing. As a result of the Base Realignment and Closure (BRAC) Commission recommendations, NAS Cecil Field is scheduled to cease operations and close in 1998.

1.2.1.1 **Facility Land Use** NAS Cecil Field occupies more than 31,000 non-contiguous acres consisting of four distinct areas: the main facility (NAS Cecil Field), which occupies 9,516 acres; the Yellow Water Weapons Department, which occupies 8,091 acres directly north of the main facility; Outlying Landing Field (OLF) Whitehouse, which occupies 2,587 acres about 10 miles north of the main facility and the 11,072-acre Land Target Complex Detachment Astor, located 120 miles south of the main base. The main facility, the Yellow Water Weapons Department, and OLF Whitehouse are shown on Figure 1-1.

The main facility of NAS Cecil Field is located in southwestern Duval County, Florida, and is within the Jacksonville, Florida, city limits. The main facility consists of intersecting north to south and east to west runways bracketing the flightline and support facilities. These facilities occupy approximately 1,000 acres in the northwest quadrant of NAS Cecil Field. The remaining acreage of the main base, including OU 8, is mostly undeveloped (SOUTHNAVFACENGCOM, 1989).

1.2.1.2 **Adjacent Land Use** The greatest population density is approximately 14 miles to the northeast in downtown Jacksonville, Florida. Land west and north

of the base is characterized as rural and is predominantly forested. Cary State Forest is 5 miles to the northwest. Small communities and scattered dwellings are located in the vicinity. A small residential area on Nathan Hale Road, which abuts the NAS Cecil Field property to the west, is an example of these rural communities. The rural community of Whitehouse is nearly adjacent to OLF Whitehouse, and the rural community of Halsema is approximately 1.8 miles to the south of OLF Whitehouse. The closest incorporated municipality is the town of Baldwin, which is centered approximately 6.4 miles to the northwest of the main facility entrance.

To the east, the rural surroundings grade into a suburban fringe bordering the major east to west roadways. Low intensity commercial use, such as convenience stores and low density residential areas, characterize the land use in this eastern area. Herlong Airport lies approximately 4.5 miles east of NAS Cecil Field along State Road 228. A development called Villages of Argyle, Florida, consisting of seven separate villages or communities, is located to the southeast of NAS Cecil Field. To the east, a golf course and residential area border the base (SOUTHNAVFACENGCOM, 1989). The region becomes more urbanized as downtown Jacksonville, Florida, is approached.

1.2.2 **Site Description** The historical OU 8, Site 3 oil and sludge disposal pit, is located immediately northeast of the intersection of Perimeter Road and the access road leading west from the south end of Lake Fretwell (Figure 1-2). The access road diagonally divides OU 8 with ⅓ north of the road and ⅔ south of the road. Based on information in the Initial Assessment Study (IAS) report, the pit was reported to be approximately 50 to 100 feet in diameter and 3 to 5 feet deep. However, the figures in the IAS show the historical pit area having dimensions of approximately 100 feet wide and 200 feet long or 20,000 square feet (Figure 1-3). It is not known why the discrepancy in the disposal pit dimensions exists. Except for investigation derived wastes (IDW) storage areas, OU 8 has an area of relatively featureless terrain; hence, the former pit cannot be visually located. The most prominent features within the former disposal pit area are the IDW storage areas (see Figure 1-3). IDW stored in these areas consist of soil from the installation of monitoring wells and soil borings. Two of the three locations where IDW was placed in shallow excavations are mounded 2 to 4 feet above the surrounding land surface. IDW from the 1991 investigation, the northernmost IDW location, was placed in an unlined excavation such that the top is level with the land surface. The IDW area located immediately south of the 1991 storage area contains IDW from the 1993-1994 investigation of OU 8. This area is lined with high density polyethylene (HDPE) and is mounded approximately 2 feet above land surface. Directly south of this area is the third area which contains IDW from remedial investigations at OU 7. This area is lined with HDPE and is mounded approximately 4 feet above land surface.

OU 8 and the immediate surrounding area have no present use. Vegetation on the site consists of low weeds and briers. To the east and southeast the study area grades into wetlands adjacent to Lake Fretwell and Rowell Creek. To the north of the historical pit area is Site 4 which is vegetated with pine trees, weeds, and grass. Perimeter Road is immediately to the west of OU 8 and a pine forest is west of Perimeter Road. No indication of stressed vegetation has been observed at OU 8. Surface water flow is locally to the east. Major drainage pathways are the roadside ditches along the access road, which slope slightly down toward Lake

Figure 1-3 Oil and Sludge Disposal Pit Area

Fretwell. Closer to Rowell Creek and within a 6 acre wetland, a drainage swale extends from south of the access road south to southeast approximately 400 feet to Rowell Creek.

The effluent discharge structure (outfall) for the Federally Operated Treatment Works (FOTW) is approximately 20 feet south of the Lake Fretwell Dam and discharges directly to Rowell Creek. In the vicinity of the effluent discharge structure, concrete rubble (generally greater than 1 foot in diameter) has been spread on the banks of Rowell Creek. This rubble appears to be acting as an erosion control structure intended to stabilize the soil and discharge structure.

1.2.3 Remedial Review and Status The first environmental study for the investigation of waste handling and/or disposal sites at NAS Cecil Field was completed between 1983 and 1985 by Geraghty and Miller, Inc. This study was followed by an IAS completed by Envirodyne Engineers in 1985. The IAS was completed under the Navy Assessment and Control of Installation Pollutants (NACIP) program, which was a precursor to the Navy's present Installation Restoration (IR) program. In 1988, a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) was completed by Harding Lawson Associates. The RFI acted on the recommendations of the IAS. OU 8 was included in both the IAS and the RFI.

NAS Cecil Field was placed on the National Priority List (NPL) by the U.S. Environmental Protection Agency (USEPA) and the Office of Management and Budget in December 1989. A Federal Facility Agreement (FFA) for NAS Cecil Field was signed by the Florida Department of Environmental Protection (FDEP, formerly the Florida Department of Environmental Regulation [FDER]), USEPA, and the Navy in 1990. Following the listing of NAS Cecil Field on the NPL and the signing of the Site Management Plan (SMP), remedial response activities at the facility were conducted under CERCLA authority.

NAS Cecil Field has several sites where hazardous wastes may have been handled, spilled, or buried. These individual sites are currently referred to as potential sources of contamination (PSCs). The name "site" is applied to PSCs that are currently under investigation at NAS Cecil Field. At the time of the facility's listing on the NPL, 18 PSCs had been identified. The RFI identified another PSC (PSC 19). Remedial response activities are currently underway at Sites 1, 2, 3, 5, 7, 8, 10, 11, 14, 15, 16, and 17. Field investigation plans were prepared for the investigation of PSCs 4, 6, 9, 12, 18, and 19 (ABB-ES, 1995c). Site 13 was transferred to the UST program.

In 1993, NAS Cecil Field was slated for closure by the Base Realignment and Closure (BRAC) Commission. An Environmental Baseline Survey (EBS) was completed as the first step in the closure process. The EBS identifies parcels of land for sale, lease, or investigation depending on the condition of the parcel. OU 8 was classified in the November 1994 EBS as red (release of hazardous substances has occurred, but required remedial actions have not yet been taken) (ABB-ES, 1994a).

1.2.4 History of OU 8, Site 3 In previous investigations, OU 8 was presented as a part of OU 2 (originally containing Sites 3, 5, and 17). In October 1993, at the 1994 fiscal year (FY) SMP meeting, the USEPA, FDEP, and the Navy identified OU 8 as a separate operable unit. While the investigations for Sites 5 and 17 of OU 2 were complete, it was noted that the OU 8 study area was much larger than historical information suggested and needed further investigation. Rather than delay progress in all three sites of OU 2 and in order to facilitate investigation

procedures, it was decided to proceed with the remediation process for Sites 5 and 17 under OU 2 and to investigate Site 3 as OU 8.

OU 8 was used to dispose of liquid wastes and sludge from as early as the mid-1950s (possibly as recent as 1960 based on aerial photography which showed no evidence of a disposal pit) until 1975. Liquid wastes were typically taken to the site by the individual shops (i.e., fuel farm, Public Works, Aircraft Intermediate Maintenance Department, and the squadrons) in bowsers (trailer mounted tanks) or 55-gallon drums, drained into the pit, and allowed to seep into the soil or evaporate. The pit wastes were burned when the liquid level approached the top. This procedure was repeated approximately once every three months by the fire department (Envirodyne Engineers, 1985).

An estimated 200 to 300 gallons of waste oil, fuel, and tank sludge from the fuel farm were disposed of weekly at the site. Although much of this volume consisted of water, it is estimated that between 210,000 and 310,000 gallons of wastes from the fuel farm were disposed of throughout the operation (20 years) of the site.

Liquid wastes generated by the squadrons, Aircraft Intermediate Maintenance Department, and Public Works were also disposed of at OU 8. These wastes included fuels, oils, solvents, paint, and paint strippers. No records were kept on disposal practices, and access to the site was uncontrolled; therefore, the actual amount of liquid wastes disposed of at OU 8 is unknown.

Estimates developed during the IAS indicate the total quantity dumped from all sources during the site operation are as follows: waste paints, 4200 gallons; spent solvents, 110,000 gallons; paint thinners, 20,000 gallons and petroleum-oil-lubricant (POL) wastes, 440,000 gallons; waste fuel, oil and sludge contaminated water, 210,000 to 310,000 gallons. Following closure of the site in 1975, the pit was filled and covered with soil (Envirodyne Engineers, 1985).

On February 8, 1992, a Navy helicopter crashed into a wooded area located approximately 800 feet east of the historic OU 8 source area (see Figure 1-3). The helicopter had a fuel capacity of between 1,800 and 2,000 gallons and ignited on impact. Soil and groundwater contamination were initially assessed by Environmental Science and Engineers, Inc. (ES&E), in August and September 1993 during a Preliminary Contamination Assessment (PCA). The results of the PCA, presented in a preliminary contamination assessment report (PCAR) indicated the presence of excessively contaminated soil (soil yielding an organic vapor analyzer [OVA] value greater than 50 parts per million [ppm]) in 9 of 31 soil borings and the presence of chlorinated solvents in groundwater. Results of this investigation are presented in Appendix A. Details of the OU 8 disposal pit area investigations are presented in the following section.

As part of the current investigation of OU 8, available historic aerial photographs have been reviewed. This review indicates that no visible disturbance is evident at the site in photographs from 1943, 1952, and 1960. The IAS indicates that OU 8 disposal operations began in the mid 1950's but, as previously stated, no disturbance is evident in the 1960 aerial photo. Based on the available aerial photographs, it appears that OU 8 disposal operations began between 1960 and 1969. The 1969 photograph shows the basic outline of the site (as evidenced by disturbed areas) to be circular and about 100 feet in diameter (8,000 square feet). This photograph also shows a linear feature (approximately 10 feet wide and 50 feet long) on the south side of the disturbed area that

appears to be a trench filled with liquid. Aerial photographs from 1972, 1973, 1975, and 1984 show that OU 8 became progressively more vegetated, indicating that disposal activities were discontinued sometime in the early 1970's.

1.2.5 Previous Investigations Investigation of the disposal areas at OU 8 began in 1985. Each investigation completed is discussed in this section in chronological order. Findings, conclusions, and recommendations from these previous investigations are presented and summarized in Appendix A and Table 1-1.

1.2.5.1 **Initial Assessment Study (IAS)** the IAS (Envirodyne Engineers, 1985) was completed to identify hazardous waste sites at NAS Cecil Field warranting further investigation and was accomplished through a records search of historical data, aerial photographs, field inspections, and personnel interviews. No intrusive field investigations were conducted. Eighteen sites were identified during the IAS, including Site 3. Site 3 was studied along with Site 4, another disposal area, due to their close proximity. The information collected during the IAS led to the initiation of RFI field activities at OU 8 (Site 3).

1.2.5.2 **Resource Conservation and Recovery Act (RCRA) Facilities Investigation (RFI)** The RFI (Harding Lawson Associates, 1988) included a site reconnaissance, a magnetometer survey, the installation of two monitoring wells (CEF-3-1 and CEF-3-2) with the subsequent sampling and analysis of groundwater, and collection of water level measurements. The monitoring well locations are shown on Figure 1-3. The location of the disposal pit is unknown precisely due to the featureless landscape of the site. The site was vegetated, mostly with low weeds and briers. Debris consisting of soil, wire, and other miscellaneous material was observed along the north side of the service road.

The magnetometer survey was completed and no anomalies were found. A very low frequency (VLF) sensor detected higher than background conductivity over two areas of the historical pit area, one in the northern part and a smaller one in the southern part. The readings in the northern part were attributed to the disposal pit, and the readings from the southern part were thought to represent a smaller secondary disposal pit.

Monitoring well CEF-3-1 had a screened interval from 10 to 20 feet below land surface (bls) and CEF-3-2 had a screened interval of 30 feet (10 to 40 feet bls). Water elevations were interpreted to indicate a southwest groundwater flow which is nearly opposite to anticipated flow toward Rowell Creek. A "mounded" condition was speculated to exist due to the closure of the oil and sludge pit with an unspecified soil. Analytical results from unfiltered groundwater samples collected during the RFI indicated the presence of 1,1 dichloroethane (210 $\mu g/\ell$), 1,1-dichloroethene (110 $\mu g/\ell$), 1,1,1-trichloroethane (88 $\mu g/\ell$), ethylbenzene (10 $\mu g/\ell$), toluene (8 $\mu g/\ell$), naphthalene (280 $\mu g/\ell$), 2-methylnaphthalene (190 $\mu g/\ell$), 4-methylphenol (29 $\mu g/\ell$), bis(2-ethylhexyl)phthalate (19 $\mu g/\ell$), lead (164 $\mu g/\ell$), and chromium (90 $\mu g/\ell$).

Based on the results of the RFI, a Corrective Action Plan (CAP) was recommended to further investigate the lateral and vertical extent of the hazardous constituents found at the site.

1.2.5.3 **1991-92 Remedial Investigation Activities** RI activities conducted by ABB-ES during fall 1991 and spring 1992 included: a ground penetrating radar (GPR) survey to identify and delineate areas of disturbed site soil; groundwater

Table 1-1
Findings and Conclusions from Previous Investigations

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Previous Study	Tasks Completed	Findings	Recommendations
Initial Assessment Study (IAS) (Envirodyne, 1985)	1. Records search 2. Onsite survey 3. Estimate waste quantities 3. Site ranking 4. Recommendations for future study	1. Summarized available historical information for Site 3. 2. Identified waste oil, fuel, tank sludge, solvents, paint, paint strippers. 3 Estimated waste quantities: fuel, oil, and sludge contaminated water: 310,000 gallons waste paint: 4,200 gallons spent solvents: 110,000 gallons petroleum and organic lubricant (POL) waste: 440,000 gallons paint thinners: 20,000 gallons	1. Confirmation investigation recommended at Site 3. 2. Install and sample two surficial wells monitoring wells. 3. Collect one surface water and one sediment sample from Rowell Creek.
RCRA Facility Investigation (RFI) (Harding Lawson Associates, 1988)	1. Site reconnaissance. 2. Geophysical survey. 3. Monitoring well installation (two wells). 4. Collection of groundwater samples.	1. Groundwater: 1,1-dichloroethane 210 $\mu g/\ell$ 1,1-dichloroethene 110 $\mu g/\ell$ ethylbenzene 10 $\mu g/\ell$ toluene 8 $\mu g/\ell$ 1,1,1-trichloroethane 88 $\mu g/\ell$ 4-methylphenol 29 $\mu g/\ell$ bis(2-ethylhexyl)phthalate 19 $\mu g/\ell$ naphthalene 280 $\mu g/\ell$ 2-methylnaphthalene 190 $\mu g/\ell$ chromium 90 $\mu g/\ell$ lead 164 $\mu g/\ell$	1. Corrective action is recommended.

See notes at end of table.

Table 1-1 (Continued)
Findings and Conclusions from Previous Investigations

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Previous Study	Tasks Completed	Findings	Recommendations
RI/FS Workplan for OUs 1, 2, and 7 (ABB-ES, 1991)	1. Summarize existing data. 2. Define RI/FS objectives. 3. Develop sampling approach to achieve RI/FS objectives.	1. No sampling completed.	1. Well installation and sampling. 2. Soil sampling. 3. Surface water and sediment sampling.
Technical Memorandum for Supplemental Sampling (ABB-ES, 1992c)	1. The 1993/1994 field program completed. 2. Summary of contamination detected in soil, sediment, surface water, and groundwater. 3. Identification of additional information required to characterize site contamination.	1. Findings discussed in Chapter 4.0, Nature and Extent of Contamination. 2. Hazardous constituents detected in soil and groundwater. 3. Horizontal and vertical extent of contaminants not fully characterized at the site. 4. Data gathered not sufficient to complete a Baseline Risk Assessment.	1. Complete screening program to characterize extent of detected contaminants in soil and groundwater. 2. Complete confirmation sampling, based on results of screening program. 3. Number and location of samples (per media) to be finalized with agency approval.

Notes: $\mu g/\ell$ = micrograms per liter.
RI/FS = Remedial Investigation/Feasibility Study.
RCRA = Resource Conservation and Recovery Act.

headspace screening for volatile organic compounds (VOCs); a piezocone (direct technology) survey to investigate subsurface lithology and to collect subsurface soil and groundwater samples; soil sampling; monitoring well installation and collection and analyses of groundwater samples; hydraulic conductivity testing; and collection of water level measurements from monitoring wells.

The results of these investigations, as summarized in the *Technical Memorandum for Supplemental Sampling at Operable Units 1, 2, and 7* (TMSS)(ABB-ES, 1992a), are summarized below for OU 8.

GPR Survey. The GPR survey was conducted on October 9 and 10, 1991, to locate areas of disturbed soil. Delineation of precise areas of disturbed subsurface materials was not achieved; however, groundwater headspace screening was conducted in areas where GPR equipment had detected disturbed materials.

Groundwater Headspace Screening. Groundwater screening was conducted on October 15 and 16, 1991, (Figure 1-4) using onsite gas chromatographs (GCs) equipped with electron capture detectors (ECDs) and flame ionization detectors (FIDs) to identify VOCs, specifically chlorinated aliphatics and aromatic organics. 1,1,1-Trichloroethane (TCA), trichloroethene (TCE), tetrachloroethene (PCE), toluene, and xylenes were detected. TCA was detected at the highest concentrations.

Piezocone Survey. A piezocone survey was conducted on October 15, 1991, to collect lithologic information on subsurface soil in the vicinity of OU 8 (Figure 1-4). Fine-grained to silty sands with occasional lenses of cemented sand were detected to a maximum depth of approximately 59 feet bls.

Soil Sampling. Eight soil borings were installed at OU 8 on December 3 and 4, 1991 (Figure 1-4). Soil samples were collected from 0 to 2 feet bls and 2 to 4 feet bls in each boring and analyzed for USEPA TCL organics and TAL inorganics. The analytical results from this effort are summarized in Appendix A. The results of the organic fraction analyses indicated the presence of VOCs and several semivolatile organic compounds (SVOCs) characteristic of solvents, plasticizers, and petroleum. The results of the inorganic analyses detected chromium.

Monitoring Well Installation. A total of eight monitoring wells were installed in December 1991 (Figure 1-4). Six of the wells were screened in the upper portion of the surficial aquifer (approximately 4 to 14 feet below land surface [bls]), one well was installed in the lower portion of the surficial aquifer (approximately 58 to 68 feet bls), and one well was installed in the intermediate dolomite aquifer (approximately 100 to 110 feet bls).

Groundwater Sampling. Groundwater samples were collected for analysis of TCL organics, TAL inorganics, and total recoverable petroleum hydrocarbons (TRPH) on November 19, 1991 (Figure 1-4). Evaluation of analytical results, which are summarized in Appendix A, indicates the presence of VOCs characteristic of solvents, particularly 1,1,1-TCA, 1,1-dichloroethane (1,1-DCA), TCE, and 1,2-dichloroethene (1,2-DCE).

Hydraulic Conductivity Testing and Water Level Elevation Determination. Slug tests were conducted in all new wells installed at the site on December 16, 1991. The hydraulic conductivity for monitoring wells screened in the upper part of the surficial aquifer ranged from 1.1 feet per day (ft/day) to 3.7 ft/day compared

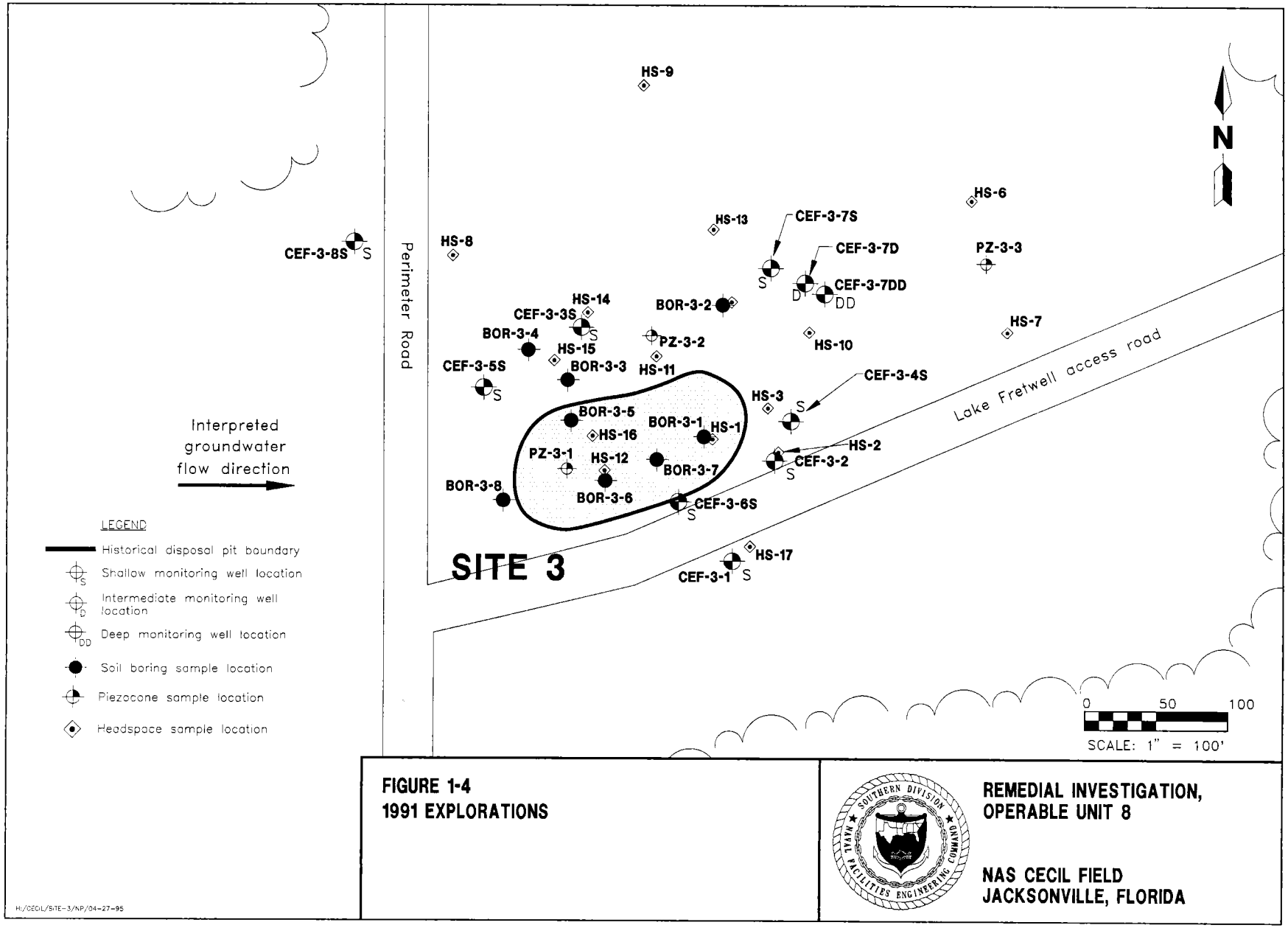


FIGURE 1-4
1991 EXPLORATIONS

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

to 1.3 ft/day for the lower part of the surficial aquifer. Hydraulic conductivity for the intermediate aquifer averaged 12.6 ft/day. Water level measurements were taken on November 19, 1991, and again on April 29, 1992. The depth to water averaged approximately 4 feet bls, which corresponds to an elevation of approximately 71 feet above mean sea level (msl). The depth to groundwater varies seasonally. Based on the water level measurements, groundwater at OU 8 in the vicinity of the disposal pit was interpreted to flow horizontally to the southeast and vertically downward.

Several data needs were identified after the 1991 to 1992 RI activities at OU 8. These consisted primarily of data required to further assess the nature and extent of soil and groundwater contamination. Recommendations to obtain the data were presented in the TMSS.

1.3 CONCEPTUAL UNDERSTANDING BASED ON SITE HISTORY AND PREVIOUS INVESTIGATIONS. Based on the historical information collected, waste liquids (primarily spent solvents and wastewater containing waste fuel, oil, and sludge) were discharged into a disposal pit (8,000 to 20,000 square feet in area) from approximately 1955 to 1975. Liquid waste drained directly to the underlying vadose zone (above the water table) and phreatic zone (below the water table) soil and groundwater. The addition of these liquid contaminants to the groundwater would be expected to create a localized mound on the water table. The mounding is believed to have had the potential to spread the contaminants radially (horizontally and downward) from the disposal pit. When the discharge ceased, the mound would have subsided, leaving contamination in what is now the vadose zone soil. After the initial spreading caused by the mounding, the contaminants would migrate with the flow of groundwater. Any contaminants remaining within the initial mound area vadose and phreatic zone soil would serve as a continuing source of groundwater contamination. Based on the horizontal groundwater flow direction and rate estimated from the 1991 to 1992 investigation data, the dissolved contaminants in the shallow groundwater are expected to have migrated approximately 900 feet to the southeast of the source area in the 37 years (1955 to 1992) since disposal operations began. Based on the vertical groundwater gradients during the operational period, the migration of dissolved contaminants would also be expected to have a downward flow component from the waste disposal pit area.

Based on the estimated flow direction and topographic and surface drainage features, the shallow groundwater would be expected to discharge to Rowell Creek, approximately 1,400 feet southeast of the former waste disposal pit area. This conceptual understanding presents the basis for the additional site investigative activities described in Chapters 2, 3, and 4.

1.4 REPORT ORGANIZATION. The NAS Cecil Field OU 8 RI report consists of seven chapters and has been prepared in accordance with *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (USEPA, 1988a). Chapter 1.0 contains a description and history of the site. Site characterization activities and field programs completed for OU 8 are described in Chapter 2.0. This chapter focuses on the screening program completed, sampling locations selected, analyses completed, and the rationale for sample collection.

Chapter 3.0 provides descriptions of the physical characteristics of the study area, such as surface features, geology, hydrogeology, hydrology, etc.

Descriptive groundwater chemistry (water quality measurements) and soil chemistry are also presented in Chapter 3.0 to augment the discussion of different aquifers and soil units present at OU 8.

The findings of media (groundwater, surface water, sediment, and soil) sampling at OU 8 are addressed in Chapter 4.0. This chapter integrates the analytical results with the findings of subsurface and hydrogeologic investigations to assess the nature and extent of contamination present at OU 8.

Contaminant fate and transport are discussed in Chapter 5.0. Chapter 6.0 presents a summary of the BRA, which is being completed under separate cover. A summary and conclusions of the RI for OU 8 are presented in Chapter 7.0. References and technical appendices are included at the end of the report.

2.0 STUDY AREA INVESTIGATION

The study area investigation was conducted to quantify, confirm, and adjust the conceptual understanding of the site conditions presented in Chapter 1.0. Subsection 1.2.3, in the previous chapter, presents the findings and conclusions from previous investigations. The data collection efforts completed during the 1993 to 1994 RI activities for OU 8 are presented in this chapter.

The 1993 to 1994 RI activities were conducted in accordance with the approach proposed in the TMSS. The supplemental investigative activities outlined in the TMSS for OU 8 consisted of a screening program for soil and groundwater and a confirmatory sampling program. Estimates of the number of wells, soil borings, and surface soil samples were proposed in the TMSS. Confirmatory sampling locations were identified (in consultation among the FDEP, USEPA, and the Navy) following completion of the screening program.

Confirmatory soil and groundwater sampling locations for OU 8 were documented in the following memoranda, which are presented in Appendix B:

- rationale for monitoring well placement at OU 8, dated January 12, 1994; and
- surface and subsurface soil sampling locations at OU 8, dated November 21, 1994.

The 1993 to 1994 RI field activities at OU 8 consisted of the following:

- site reconnaissance;
- sampling and chemical analysis of surface water, sediment, surface and subsurface soil;
- monitoring well installation;
- groundwater sampling and chemical analysis;
- hydraulic conductivity testing;
- water level elevation measurements; and
- biological testing.

2.1 SURFACE FEATURES. Investigations completed to characterize existing surface features at the site included surveying, site reconnaissance, and wetlands and habitat mapping.

Surveying of all sampling stations at OU 8 was completed during the 1993 to 1994 RI investigation. During the survey, which used the global positioning system (GPS) and conventional laser surveying techniques, several monuments were established at NAS Cecil Field, including one at OU 8, to facilitate future surveying efforts. An elevation and location survey was performed to locate all monitoring wells, soil borings, surface soil samples, and surface water and

sediment samples at OU 8. Each land surface elevation and the top of casing (for monitoring wells) elevation at OU 8 were surveyed vertically to a minimum degree of accuracy of 0.01 foot based on the National Geodetic Vertical Datum (NGVD) of 1929. Sampling stations were located areally to the nearest 0.1 foot based on the Florida State Plane Coordinate System (North American Datum, 1983 to 1990). Monitoring wells installed during previous investigations were resurveyed.

Site reconnaissance was ongoing during the current investigation. Information regarding surface features observed during site reconnaissance is summarized in Section 3.1.

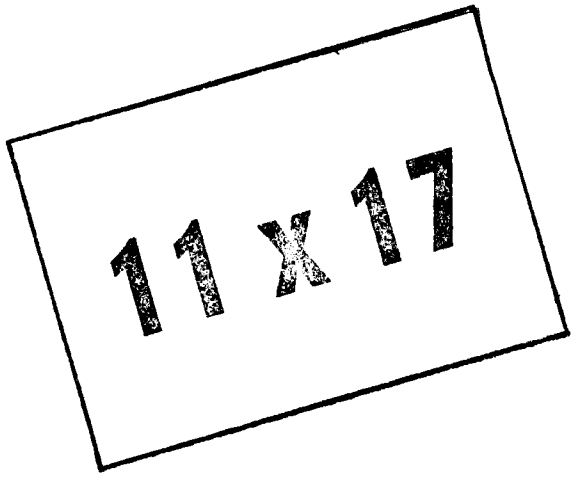
2.2 CONTAMINANT SOURCE INVESTIGATIONS. Information on the source of materials deposited in the waste disposal pit at OU 8 was evaluated during the preparation of the IAS (Envirodyne Engineers, 1985). Subsection 1.2.3 summarized the findings and conclusions of the IAS. Contaminant source investigations completed during this RI/FS investigation included geophysical surveys, reviews of historical aerial photographs, site reconnaissance, surface and subsurface soil sampling, monitoring well installation, and groundwater sampling.

2.3 SURFACE WATER AND SEDIMENT INVESTIGATIONS. To supplement the one location sampled in 1993 (RC-SW/SD/BIO-3) and to better define the reach of Rowell Creek into which contaminated groundwater from OU 8 is interpreted to discharge, surface water and sediment samples were collected on November 21, 1994, from two locations (CF-SW/SD-1 and CF-SW/SD-2) (Figure 2-1). The locations were upgradient and downgradient of surface water, sediment, and biological monitoring station RC-SW/SD/BIO-3 (Figure 2-1). The purpose of the surface water and sediment investigation was to assess potential contaminant migration through groundwater-surface water interaction, surface runoff, and/or soil erosion and to assess potential human health and ecological risks. The upgradient location was intended to be collected downgradient of the FOTW wastewater outfall, yet upstream of the zone where groundwater was interpreted to discharge to Rowell Creek. The downgradient location was intended to establish contaminant concentrations after the groundwater plume has discharged to Rowell Creek. In the sampling location nomenclature, "SD" and "SW" denote sediment and surface water, respectively.

Surface water samples were collected by facing upstream and directly immersing the bottle, taking care to avoid stirring up sediment. Sediment samples were collected by using a hand auger or ponar dredge sampler to obtain sediment from the stream bed at a depth of approximately 0 to 1 foot. VOC jars were filled with sample material from the middle of the auger bucket. The remaining sample containers were filled with homogenized sediment. Augers, stainless-steel spoons, and glass bowls were decontaminated prior to use and between each sample location. The date, time, and location of the samples were logged by field personnel.

Field measurements of surface water pH, temperature, depth, turbidity, conductivity, and dissolved oxygen were recorded at each sample location by field personnel. The results of these measurements are presented in Chapter 5.0 of the BRA (ABB-ES, 1995). Surface water and sediment samples were analyzed for target compound list (TCL) organics and target analyte list (TAL) inorganics. Detection limits lower than the contract-required detection limits (CRDLs) were used for all volatile organic compounds (VOCs) and selected metals during the surface water

Figure 2-1 Surface Water and Sediment Sampling Locations



and sediment analytical program. The metals with lowered detection limit are: beryllium, 0.2 $\mu g/\ell$; cadmium, 0.2 $\mu g/\ell$; and silver, 0.1 $\mu g/\ell$. Total organic carbon (TOC) analyses were completed for all sediment samples. Total recoverable petroleum hydrocarbon (TRPH) analyses were completed on samples from selected sediment sampling locations. Wet chemistry analyses were performed on the surface water samples, which included hardness and nutrients analyses. Hexavalent chromium analysis was performed on select surface water and sediment samples for evaluating whether this more toxic form of chromium was present. Samples were analyzed in accordance with Naval Energy and Environmental Support Activity (NEESA) Level D quality control (NEESA, 1988). The results of the surface water and sediment sampling conducted in the vicinity of OU 8 are presented in Chapter 4.0.

2.4 SOIL INVESTIGATIONS. The soil investigations were conducted to characterize the nature and extent of contamination identified as present by the previous investigations. This was accomplished by conducting a screening program using onsite laboratory analysis, followed by confirmatory sampling and analysis at Level IV quality control.

2.4.1 Soil Screening The soil screening program comprised two series of sample location designations, AGSS and GS. The AGSS series was conducted in Spring 1994 as part of an accelerated effort to delineate the contamination detected in the surface soil (0 to 2 feet bls) in the area of the waste disposal pit and eastward toward Rowell Creek. The GS series was conducted in conjunction with the groundwater screening program (see Subsection 2.7.1), and covered the disposal pit as well as the area to the east, south, and southeast of OU 8. The locations of the AGSS and GS series samples are presented on Figures 2-2 and 2-3, respectively. The soil boring logs are presented in Appendix C. The AGSS surface soil samples were submitted for onsite laboratory VOC and TRPH (AGSS-3-1 through AGSS-3-66) analyses. The GS borings were advanced by hollow stem auger (HSA) method with split spoon samples collected continuously to the water table. Once into the water table, Aquaprobe™ sampling procedures were employed (see Subsection 2.7.1).

The soil samples at each location were field-screened to the water table with a PID or FID. Two soil samples from each boring were submitted for onsite laboratory VOC analysis (USEPA Level III) based upon elevated PID or FID readings, visible evidence of contamination or, in the case that neither above-mentioned method is conclusive, a sample selected by the field geologist from the mid-depth of the borehole. The results of the soil screening program are presented in Appendix D and discussed in Chapter 4.0.

2.4.2 Confirmatory Soil Sampling To confirm the nature and extent of the contamination detected at the disposal pit area, surface and subsurface soil sampling and analyses were conducted. Based on the results of the screening program, surface soil samples were collected from 24 locations, and soil borings were advanced at 21 locations from November 18 through November 20, 1994 . These surface and subsurface soil sampling locations are presented on Figure 2-4. The rationale for the collection of confirmatory surface and subsurface soil sampling is documented in a memorandum, dated November 21, 1994, which is presented in Appendix B.

Figure 2-2 Surface Soil Screening Locations (AGSS Series)

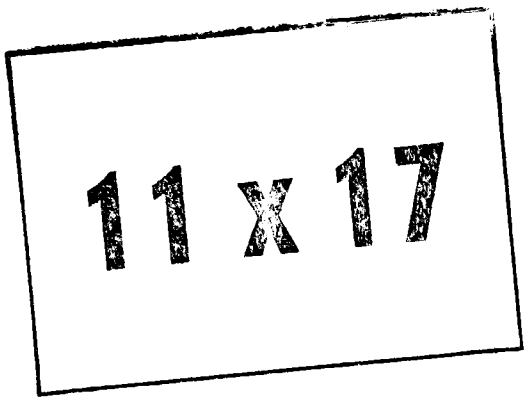


Figure 2-3 Suburface Soil and Groundwater Screening Locations (GS Series)

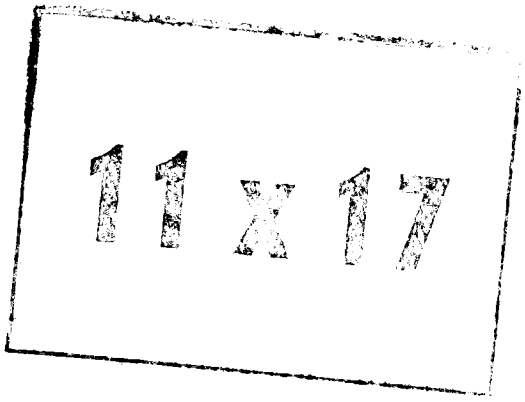
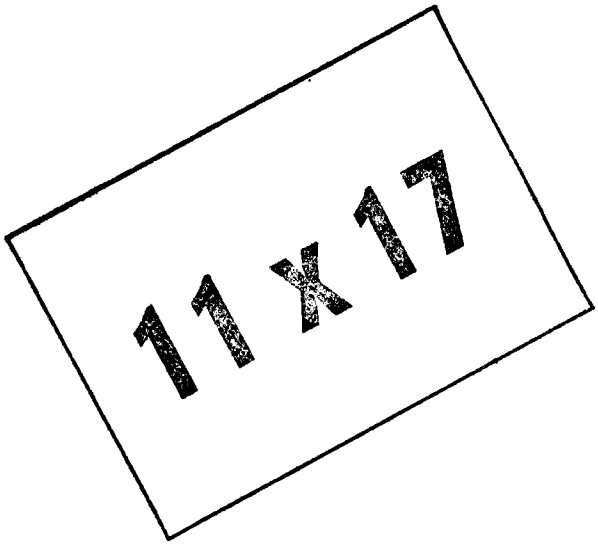


Figure 2-4 Confirmatory Surface and Subsurface Soil Sampling Locations



The surface soil samples were collected from depths of 0 to 12 inches bls and submitted for CLP analysis of TCL parameters, TAL parameters, and TRPH. One subsurface soil sample was collected from each boring. The sample was collected immediately above the water table typically from 1 to 3 feet bls. These samples were analyzed according to CLP procedures for TCL organics, TAL inorganics, and TRPH at USEPA Level IV quality control. The results of the confirmation soil sampling are discussed in Chapter 4.0.

Two geotechnical samples were collected from the vadose zone at OU 8 and submitted for analysis of soil moisture content (ASTM D-2216), Atterberg limits (ASTM D-4318), cation exchange capacity (SW9081), bulk density (ASTM E12-70), and sieve and hydrometer particle size distribution (ASTM D-421 and 422)(ASTM, 1994). The results of the geotechnical analyses are presented in Appendix E.

2.5 GROUNDWATER INVESTIGATIONS. Groundwater monitoring wells were installed to assess the nature and extent of contamination in groundwater at OU 8. This was accomplished by conducting a screening program followed by confirmatory sampling.

2.5.1 Groundwater Screening Field screening of groundwater samples at OU 8, for the 1993 to 1994 sampling event were collected from 79 locations at OU 8 using the direct-push Aquaprobe™ system. These locations are depicted as the GS series soil screening locations shown on Figure 2-3. Two episodes of groundwater screening were completed at OU 8. The first episode (Spring 1993) was centered in the area historically identified as OU 8 and included screening boring locations GS-3-1 through GS-3-33. The field laboratory analyzed groundwater samples for USEPA Method 8010 modified in the field using the purge and trap method of headspace analysis. The second episode of screening included boring locations GS-3-34 through GS-3-79. During this round of screening, the analytical suite being used by the onsite laboratory was changed to USEPA Method 8010/8020, which included benzene, toluene, ethylbenzene, and xylenes (BTEX) and was modified to detect naphthalene.

The Aquaprobe™ consists of: (1) a stainless steel drive point, (2) a 4 foot screened section made of 10 slot (0.010 inch wide) wound stainless steel, (3) a retractable stainless steel outer casing which seats against the drive point and encloses the screen until the time of sample collection, and (4) flush-threaded drill pipe, which is attached to the outer casing. *In situ* groundwater sample collection using the Aquaprobe™ is accomplished by augering (using HSA) down to 4 to 5 feet above the desired sampling interval. The Aquaprobe™ is then placed inside the augers with the outer casing firmly seated against the drive point and lowered to the bottom of the boring. The probe can be advanced to the desired sampling interval by hammering with a drop weight or by pushing with the drill rig. After measuring the level of any water that may have leaked into the probe stem, the stainless steel outer casing was retracted exposing the four foot section of screen to the formation. The groundwater sample is then collected using a Teflon™ bailer. Following collection of each sample, the Aquaprobe is removed from the boring and decontaminated.

The samples were typically collected from six depth intervals at each location; 11 to 15 feet bls, 18 to 22 feet bls, 28 to 32 feet bls, 52 to 56 feet bls, 72 to 76 feet bls, and 98 to 102 feet bls (top of dolomite). Based on the field screening data, and other sampling information, locations or the placement of confirmation monitoring wells were selected.

2.5.2 Monitoring Well Installation, Sampling, and Analysis A total of 27 (CEF-3-9I through CEF-3-35S) monitoring wells were installed from December 4, 1993 to April 20, 1994, to confirm the nature and extent of contamination identified during the groundwater screening program. Monitoring well locations are shown on Figure 2-5 and a summary of the construction details is presented in Table 2-1. Monitoring well lithologic logs and construction diagrams are presented in Appendix F. The rationale for the selection of the monitoring well locations is documented in the memorandum, dated January 12, 1994, presented in Appendix B.

The first numerical character in the monitoring well name indicates the site location. The last numerical character in the monitoring well name is the unique location within the site, and has not changed. The letter at the end of the monitoring well name indicates the approximate screened interval of the well (i.e., "S" denotes a shallow screened interval, "I" denotes an intermediate screened interval, "D" denotes a screened interval immediately above the dolomite, and "DD" denotes a screened interval in the dolomite). The renaming corresponds with the nomenclature used on the chain-of-custody forms during the 1993 to 1994 sampling program.

Monitoring wells CEF-3-1 and CEF-3-2 were installed by a previous contractor. CEF-3-2 has since been abandoned because the screened interval (30 feet) was too long to accurately identify and delineate groundwater contamination. Well CEF-3-1 has a 10 foot screened interval and is being used to delineate the extent of groundwater contamination south of the source area. Well CEF-3-2 was abandoned in accordance with St. Johns River Water Management District procedures (Florida Legislature, 1989). Monitoring wells CEF-3-3S, CEF-3-4S, CEF-3-6S, CEF-3-7S, CEF-3-7D, CEF-3-7DD, and CEF-3-8S were installed during the 1991-92 RI activities. Shallow monitoring wells CEF-3-3S, CEF-3-4S, CEF-3-5S, CEF-3-6S, CEF-3-7S, CEF-3-8S, CEF-3-13S, CEF-3-16S, CEF-3-18S, CEF-3-20S, CEF-3-23S, CEF-3-25S, CEF-3-28S, CEF-3-31S, and CEF-3-34S were installed to investigate the groundwater in the Upper Zone of the surficial (UZS) aquifer. UZS wells have 10-foot screens across the water table, from 15 to 25 feet bls, or from 20 to 30 feet. Intermediate zone of the surficial (IZS) aquifer monitoring wells CEF-3-9I, CEF-3-11I, CEF-3-14I, CEF-3-21I, and CEF-3-26I were installed with 10-foot screens, with the top of screens ranging from 25 to 45 feet bls. The lower zone of the surficial (LZS) aquifer monitoring wells, CEF-3-7D, , CEF-3-10D, CEF-3-12D, CEF-3-15D, CEF-3-17D, CEF-3-19D, CEF-3-22D, CEF-3-24D, CEF-3-27D, CEF-3-29D, CEF-3-32D, and CEF-3-35D have 10-foot screens, with the top of the screens ranging from 55 to 88 feet bls. Monitoring wells CEF-3-7DD, CEF-3-30DD, and CEF-3-33DD, were installed to investigate groundwater in the upper zone of the Hawthorn (UZH), the Intermediate Aquifer. The UZH wells have 10-foot screens, with the top of the screens ranging from 94 to 105 feet bls.

The "S" and "I" monitoring well borings, as well as the borings for CEF-3-12D, CEF-3-19D, and CEF-3-35D, were advanced using the hollow-stem auger method. The remaining "D" well borings and the "DD" monitoring well borings were drilled using the ODEX method. The ODEX drilling method uses a flush-threaded, temporary steel casing that is advanced with an acentric bit and downhole hammer. The acentric bit is spring-loaded and expands when rotated to a diameter slightly greater than that of the casing; when counter-rotated, the drill bit decreases in diameter to a size slightly smaller than that of the casing. Drill cuttings are evacuated from inside the casing through suction or air-lifting, preventing any potentially contaminated cuttings from circulating throughout the depth of the borehole.

Figure 2-5 Monitoring Well Locations

Table 2-1
Monitoring Well Construction Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Well Number	Date Installed	Land Surface Elevation[1] (feet, msl)	Total Depth of Well[2] (feet)	Screened Interval[2] (feet)	Lithology Screened	Construction Method[3]
CEF 3-1	06/06/87	75.1	33.5	22.5-32.5	Surficial Aquifer, Silty Sand	HSA
CEF 3-2	06/08/87	--	--	--	Abandoned	
CEF 3-3	10/21/91	75.7	13.0	3-13	Surficial Aquifer, Sandy Clay	HSA
CEF 3-4	10/21/91	74.3	13.0	3-13	Surficial Aquifer, Sandy Clay	HSA
CEF 3-5S	10/22/91	75.3	13.0	3-13	Surficial Aquifer, Sandy Clay	HSA
CEF 3-6S	10/22/91	75.1	13.0	3-13	Surficial Aquifer, Sandy Clay	HSA
CEF 3-7D	10/23/91	74.9	68.0	58-68	Surficial Aquifer, Clayey Sand	HSA
CEF 3-7DD	10/29/91	74.7	107.0	97-107	Intermediate Aquifer, Cemented Shells	HSA
CEF 3-7S	10/22/91	75.1	13.0	3-13	Surficial Aquifer, Sandy Clay	HSA
CEF 3-8S	10/22/91	74.1	13.0	3-13	Surficial Aquifer, Sandy Clay	HSA
CEF 3-9I	12/05/93	74.2	55.0	45-55	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-10D	12/17/93	74.3	98.0	88-98	Surficial Aquifer, Clay	ODEX
CEF 3-11I	12/07/93	57.1	35.0	25-30	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-12D	12/14/93	57.2	65.0	55-65	Surficial Aquifer, Clayey Gravel/Shells	HSA
CEF 3-13S	12/17/93	74.2	18.0	8-18	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-14I	12/16/93	74.0	55.0	45-55	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-15D	12/19/93	74.1	98.0	88-98	Surficial Aquifer, Clay	ODEX
CEF 3-16S	01/12/94	72.8	16.0	6-16	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-17D	01/15/94	72.7	94.0	84-94	Surficial Aquifer, Clay	ODEX

See notes at end of table.

Table 2-1 (Continued)
Monitoring Well Construction Detail Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Well Number	Date Installed	Land Surface Elevation[1] (feet, msl)	Total Depth of Well[2] (feet)	Screened Interval[2] (feet)	Lithology Screened	Construction Method[3]
CEF 3-18S	02/01/94	62.0	25.0	15-25	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-19I	02/10/94	62.6	76.0	66-76	Surficial Aquifer, Clay/Shells	HSA
CEF 3-20S	01/18/94	55.9	14.0	4-14	Surficial Aquifer, Silty Sand	HSA
CEF 3-21I	01/17/94	55.9	50.0	40-50	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-22D	01/24/94	55.7	70.0	60-70	Surficial Aquifer, Clay/Shell	ODEX
CEF 3-23S	01/28/94	61.1	25.0	15-25	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-24D	01/28/94	61.2	72.5	62.5-72.5	Surficial Aquifer, Sandy Clay	ODEX
CEF 3-25S	01/19/94	69.9	25.0	15-25	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-26I	01/25/94	69.9	55.0	45-55	Surficial Aquifer, Silty Sand	HSA
CEF 3-27D	01/17/94	69.7	91.0	81-91	Surficial Aquifer, Sandy Clay	ODEX
CEF 3-28S	02/16/94	63.7	30.0	20-30	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-29D	02/01/94	63.3	82.0	72-82	Surficial Aquifer, Clayey Sand/Shell	ODEX
CEF 3-30DD	02/14/94	63.5	104.0	94-104	Intermediate Aquifer, Dolomite	ODEX
CEF 3-31S	01/27/94	55.2	30.0	20-30	Surficial Aquifer, Fine to Medium Sand	HSA
CEF 3-32D	01/26/94	55.1	66.0	56-66	Surficial Aquifer, Sandy Clay/Shell	ODEX
CEF 3-33DD	02/24/94	74.1	115.0	105-115	Intermediate Aquifer, Dolomite	ODEX
CEF 3-34S	04/20/94	56.2	35.0	25-35	Surficial Aquifer, Silty Sand	HSA
CEF 3-35D	04/21/94	56.5	65.0	55-65	Surficial Aquifer, Clay	HSA

[1] Elevation of northeast corner of concrete pad.
[2] Measured from land surface elevation; includes any sump.
[3] All wells installed with 2 inch interior diameter (ID), flush threaded, schedule 40 PVC, with 10-foot long screen (0.010 inch screen slot size) and silica sand filter pack (90 percent passing the 20 sieve and 10 percent passing the 30 sieve) in boreholes advanced by the noted drilling method.

Notes: msl = mean sea level datum (NGVD, 1929).
HSA = hollow-stem auger.
ODEX = direct circulation.

Split-spoon samples were collected and logged continuously from the well boreholes advanced by HSA method. Drill cuttings were used for logging purposes from the well boreholes advanced by the ODEX method. Monitoring well boring logs are presented in Appendix F. Physical characteristics of the OU 8 study area are presented in Chapter 3.0.

Monitoring wells were constructed of flush-threaded 2-inch inside diameter (ID), schedule 40, polyvinyl chloride (PVC) screen and riser in compliance with National Sanitation Foundation (NSF) Standard 14. Ten-foot well screens with a slot size of 0.010 inch were used to construct all wells. Monitoring wells were constructed and installed in accordance with SOUTHNAVFACENGCOM *Guidelines for Groundwater Monitoring Well Installation* and as specified by USEPA Region IV Guidance (USEPA, 1991a), with the exception that 4.25-inch ID augers were employed instead of the 6.25-inch ID augers specified in the document. All monitoring wells were constructed as outlined in the Sampling and Analysis Plan (SAP) and RI workplan. Monitoring well construction details for OU 8 are shown in Table 2-1 (see also Appendix F). The wells were developed to remove fine-grained soil particles, improve the hydraulic connection with the natural formation, and to obtain a representative groundwater sample. Preliminary development of the wells occurred after hydration of the bentonite seal by pumping for approximately 30 minutes on the shallow wells and 60 minutes on the deeper wells. The deeper wells were pumped longer to remove water that may have been introduced to the aquifer during the ODEX drilling operations. Approximately 48 hours after installation and initial development, the wells were more fully developed by pumping. Prior to sampling, the wells were purged until turbidity readings were less than 5 nephelometric turbidity units (NTUs). If the 5 NTU limit could not be attained during purging, both filtered and unfiltered samples were collected for TAL analysis. The physical parameter measurements recorded during development and purging are presented in Appendix G.

Groundwater samples were collected from all monitoring wells during March 1994 and analyzed according to USEPA Contract Laboratory Program (CLP) procedures for TCL organics, TAL inorganics, hexavalent chromium, cyanide, sulfides, TRPH, TDS, TOC, and major cations and anions. Sample collection and analyses were performed in accordance with USEPA Level IV requirements. Data validation was performed on all analytical results in accordance with USEPA Functional Guidelines (USEPA, 1991b). Appendix G presents logs completed during groundwater sample collection. Laboratory analytical results are discussed in Chapter 4.0.

In situ hydraulic conductivity tests (slug tests) were conducted on select monitoring wells at OU 8. The method used consists of submersing a slug (PVC tube filled with sand) of known volume within the monitoring well and allowing the well to stabilize to the static water level. After the groundwater in the well has stabilized, the slug is removed as quickly as possible (in theory instantaneously), and the resulting drop in water level (head) and subsequent recharge are recorded over time using a pressure transducer and a data logger. The aquifer slug test data were analyzed using a computer program (Geraghty & Miller, 1989) based on the Bouwer and Rice method (1976) for surficial aquifers and the Cooper and others (1973) method for the intermediate aquifer. The results of the aquifer slug tests are presented in Section 3.6. Appendix H contains the aquifer slug test data.

Groundwater level measurements were collected monthly from all monitoring wells. The groundwater levels were measured using an electric water level indicator and an engineering tape accurate to 0.01 foot. Water level elevations were calculated

by subtracting the measured depth to groundwater from the elevation of the top of well casing. Groundwater level data are found in Appendix I.

2.6 BACKGROUND INVESTIGATIONS. A sampling program was designed to characterize existing background conditions for NAS Cecil Field and to support the RI, BRA, and FS for OU 8. The background monitoring network consisted of monitoring well installation and the collection of surface soil, subsurface soil, and groundwater samples. Surface water and sediment sampling were also completed over much of the drainage system for NAS Cecil Field.

Figure 2-6 shows the soil and groundwater stations included in the background sampling network. Appendix J presents summaries of the background concentrations for all media at OU 8. A detailed rationale for the selection of basewide background sampling locations can be found in RI reports previously prepared for OUs 1, 2, and 7 (ABB-ES, 1994b; 1994c; 1995d). Three different soil types were present in the OU area of investigation including Albany fine sand, Ridgeland fine sand, and Arents. In order to develop a representative background data set, basewide background surface soil samples collected from these three soil types were combined to create the OU 8 surface soil background data set. The subsurface soil background data set was developed by combining all subsurface basewide background samples collected. Groundwater background was established using the results from upgradient monitoring wells CEF-3-8S, CEF-3-9I, and CEF-3-10D. Surface water and sediment background was established using the results from sample CF-SW/SD-2, which are located in Rowell Creek upgradient of the reach where the groundwater plume is interpreted to discharge and downgradient of the point where the NAS Cecil Field wastewater treatment plant discharges.

The objectives of the background sampling program were to: (1) develop an accurate representation of existing physical and chemical background conditions at NAS Cecil Field, (2) establish a database for physical and chemical background measurements to be used during the OU 8 investigation (and investigation of other OUs), and (3) provide permanent and representative monitoring stations in the upper and lower surficial aquifer. The establishment of existing background conditions is most important for the inorganics (metals), which are naturally occurring and will be detected (at varying concentrations) in all surface soil, subsurface soil, and groundwater samples collected. Characterization of existing background conditions is also important for the interpretation of certain organic analyses, such as pesticides, naturally occurring hydrocarbons, and organic carbon.

2.7 ECOLOGICAL INVESTIGATION. A biological sampling program was implemented to provide information necessary for completion of the Ecological Risk Assessment (ERA) and FS. The biological investigation included a wetlands assessment and habitat mapping, toxicity testing of surface soil and sediment, and an aquatic sampling field program. Each of these components is described in the following subsections. Information from the biological investigation was used to identify ecological receptors, characterize the ecotoxicity of contamination in surface soil and sediment, and to identify risks in the ERA. Information on the extent of wetlands was used in the FS to evaluate remedial alternatives.

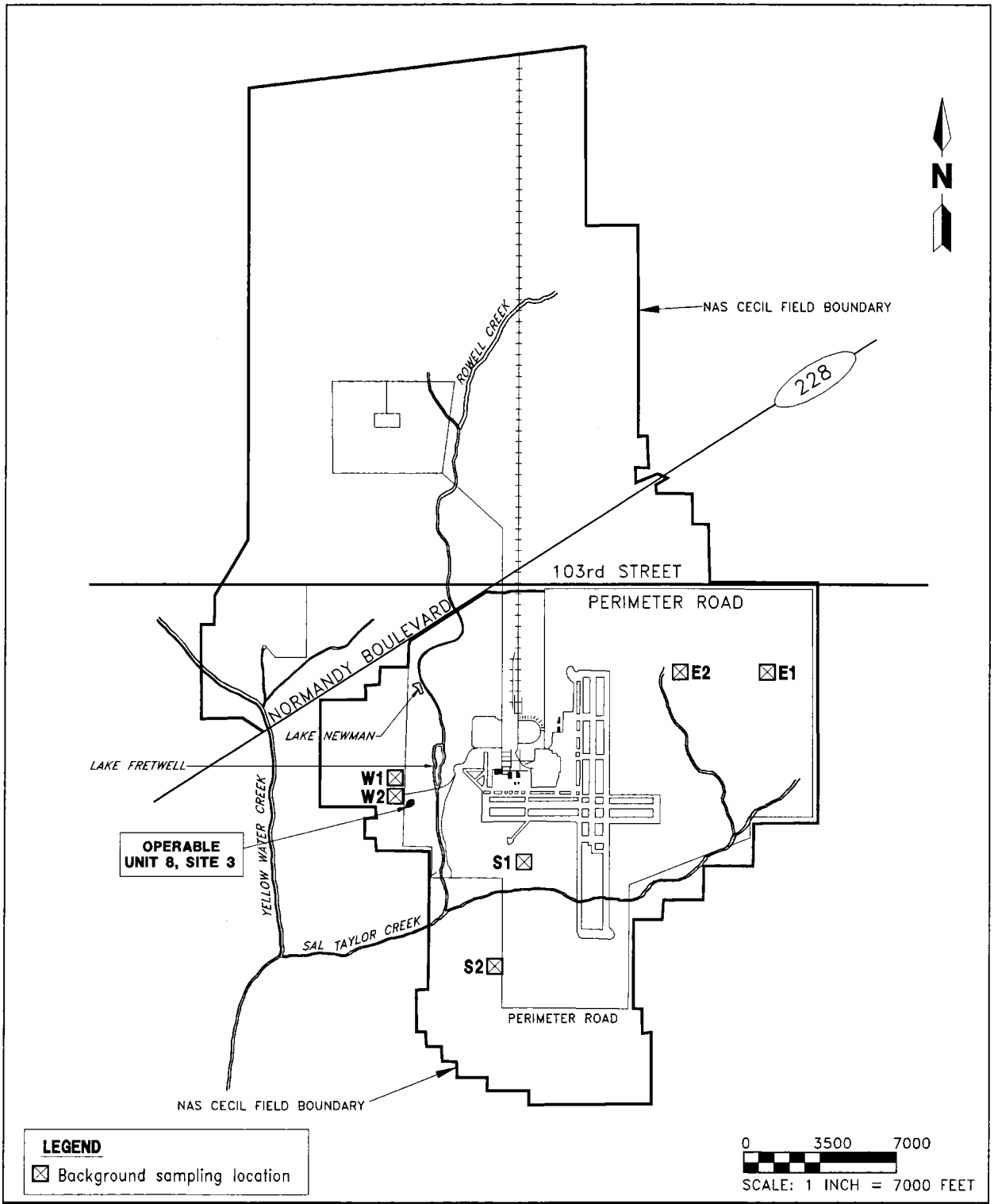


FIGURE 2-6
BACKGROUND SOIL AND GROUNDWATER SAMPLING LOCATIONS

H:/CECIL/FS-FACIL/NP/04-25-95

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

2.7.1 **Wetlands Assessment and Habitat Mapping** A wetlands assessment and mapping of upland vegetative communities was completed for OU 8 at NAS Cecil Field (ABB-ES, 1995a). The Wetlands Assessment included identification of wetlands on and adjacent to OU 8, characterization of the vegetative communities, and delineation of the extent of the wetlands. Upland plant communities were also characterized and mapped. The information on vegetative cover was used in the ERA to identify ecological receptors and identify exposure pathways. The area comprises approximately 6.2 acres of Palustrine (swamp) Forested and Scrub-Shrub Broad-Leaved Deciduous Wetlands and 0.5 acre of Palustrine Emergent Persistent. The total area of the Site 3 investigation is approximately 20 acres, so wetlands cover approximately 34 percent of the total investigated area. Based on previous investigations, wildlife diversity and abundance in this area was low, but the site rated high for groundwater discharge, flood-flow alteration, sediment stabilization, sediment and toxicant retention, and nutrient removal and transformation. The Wetlands Assessment and mapping of upland vegetative communities is further described in Section 5.1 of the BRA for OU 8 (ABB-ES, 1995a) and shown on Figure 1-3.

2.7.2 **Sediment Toxicity Testing** Toxicity testing of sediment and surface soil was completed in coordination with the sampling of these media for chemical analyses as described in Sections 2.3 and 2.4, respectively. The sediment samples for toxicity testing were collected with the samples for chemical analyses, homogenized, and split. The sediment samples were submitted for toxicity testing with two organisms, the water flea *Ceriodaphnia dubia* and the small crustacean amphipod *Hyallela azteca*. The methods for toxicity testing are included as Appendix Q of the Baseline Risk Assessment (ABB-ES, 1995a). The methods described in the daphnid are based on USEPA Method 1002.0 (USEPA, 1989a). The methods described in the amphipod protocol generally meet the standard procedures described in the American Society of Testing and Materials (ASTM) Guidelines for Completing Sediment Toxicity Tests with Freshwater Invertebrates (ASTM, 1991). The purposes of the toxicity testing were to determine a location-specific toxicity of sediment and risk for aquatic receptors in the Ecological Risk Assessment and to determine, if necessary, the concentrations of contaminants in the sediment at OU 8 at which no adverse effects (e.g., death) to the test organisms were observed. The toxicity testing of sediment and results are presented in Chapter 6.0 of the Ecological Risk Assessment (ABB-ES, 1995a).

The surface soil sampling program is described in Section 2.4. Nine surface soil samples (CF3SS1, CF3SS4, CF3SS9, CF3SS12, CF3SS15, CF3SS17, CF3SS20, CF3SS22, CF3SS24) were submitted for analyses of toxicity. The toxicity of surface soil samples was evaluated by use of a subacute toxicity test with earthworms (*Eisenia foetida*) and a seed germination toxicity test with lettuce (*Lactuca sativa*). Protocols used are included as Appendix Q of the Baseline Risk Assessment (ABB-ES, 1995a). The methods described generally meet the standard procedures described in the protocol for short-term toxicity screening of hazardous waste site soil (Green and others, 1989). The purposes of toxicity testing of surface soil were to determine the site-specific toxicity of contamination present, to measure adverse effects (risks) for soil invertebrates and plants cause by contamination, and, if necessary, to determine a concentration of contaminant(s) in the surface soil at OU 8 at which no adverse effects (i.e., successful survival and reproduction) to the test populations were observed. This information could be used to make decisions regarding cleanup levels for remedial alternatives.

2.7.3 **Aquatic Invertebrate and Fish Sampling** The aquatic field sampling completed for OU 8 included sampling of the benthic macroinvertebrate community, fish, water

quality parameters, and aquatic habitat quality parameters. The benthic macroinvertebrate community was sampled at location RC-SW/SD/BIO-3 as shown on Figure 2-4. The sampling procedures and results are included in the Baseline Risk Assessment (ABB-ES, 1995a). The purpose of the biological investigation was to determine the status of the structure and function of the existing benthic macroinvertebrate community in the area of OU 8 and to ascertain if contaminants present at OU 8 may be having an adverse effect on the health of that community.

3.0 PHYSICAL CHARACTERISTICS OF THE OPERABLE UNIT 8 STUDY AREA

This section presents a description of the physical characteristics of the OU 8 study area. Discussion of the physical characteristics is divided into the following sections: surface features, climatology, surface-water hydrology, soil, geology, hydrogeology, demography and land use, and ecology.

3.1 SURFACE FEATURES AND DRAINAGE. OU 8 consists of the waste disposal pit and adjacent area. The OU 8 area of investigation covers approximately 20 acres and extends from Perimeter Road to the southern tip of Lake Fretwell and up to 1000 feet downstream from the Lake Fretwell Dam. The seepage pit is located adjacent to Perimeter Road approximately 1400 feet west southwest of Lake Fretwell near the intersection of Perimeter Road and the Lake Fretwell Access Road (see Figure 3-1). The area west of Rowell Creek and east of Perimeter Road is primarily flat at the disposal pit (source) area and gently slopes to Rowell Creek. This area is covered with vegetation ranging from open grassy to heavily wooded areas. Perimeter Road and the Lake Fretwell access road are maintained, but not paved through their entire length. Surface features and topography are presented on Figure 3-1.

OU 8 is vegetated primarily with briers and weeds. Adverse effects from waste activities, such as surface soil staining or stressed vegetation, were not visible during site visits in 1988, 1991, 1993 and 1994.

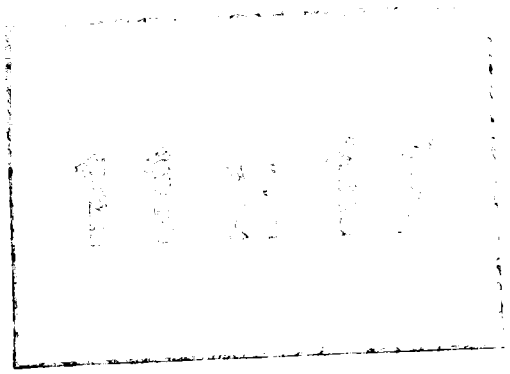
In addition to Lake Fretwell, the primary surface water feature at OU 8 is Rowell Creek and a wetland west of Rowell Creek. The delineated wetland is approximately 6 acres. The ground surface south of the Lake Fretwell Access Road slopes primarily to the east, directing surface runoff toward the wetland and Rowell Creek. North of the access road, surface drainage is to Lake Fretwell via a drainage ditch along the access road.

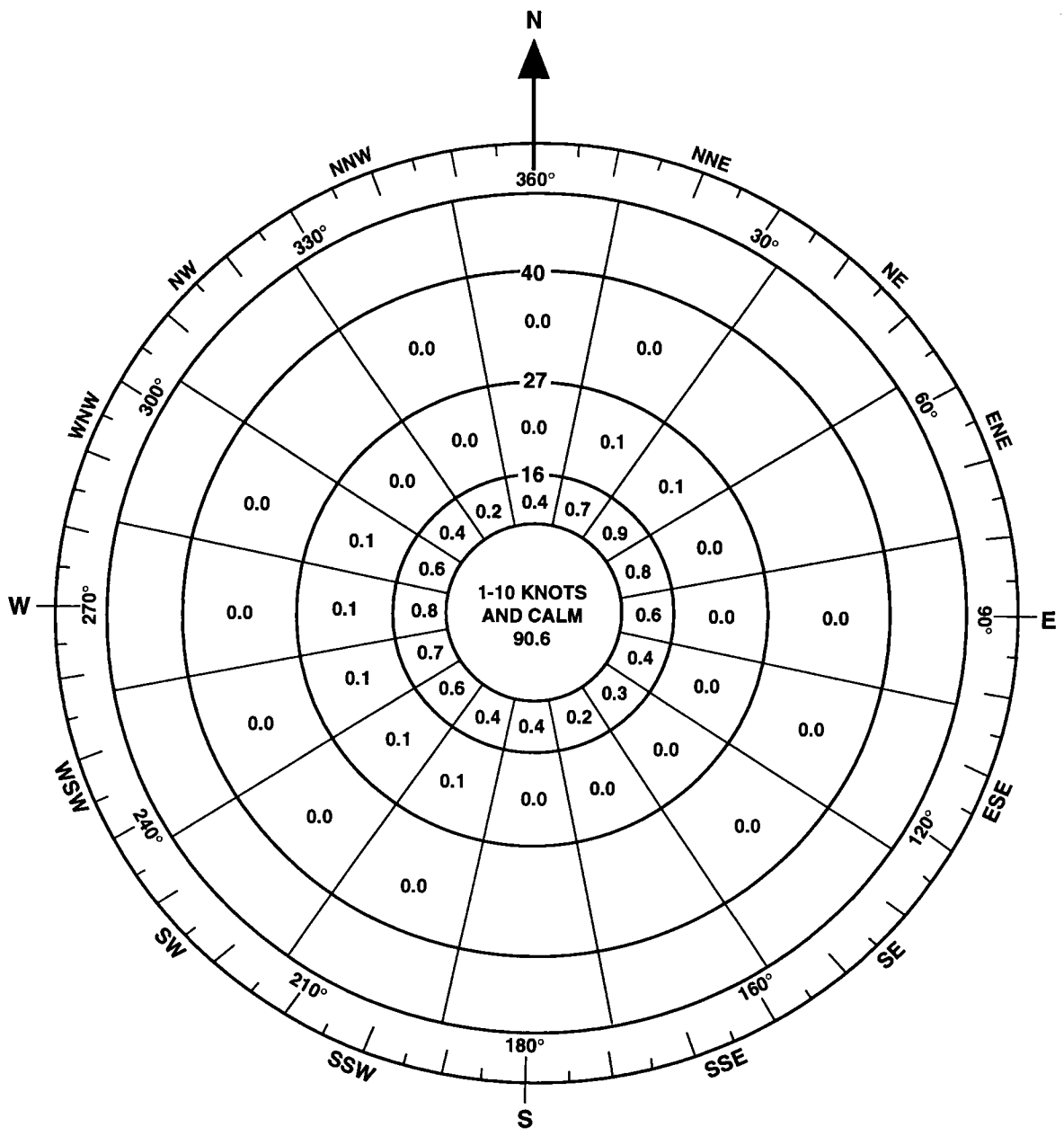
The effluent discharge structure (outfall) for the Federally Operated Treatment Works (FOTW) is approximately 20 feet south of the Lake Fretwell Dam and discharges directly to Rowell Creek. In the vicinity of the effluent discharge structure, concrete rubble (generally greater than 1 foot in diameter) has been spread on the banks of Rowell Creek. This rubble appears to be acting as an erosion control structure intended to stabilize the soil and discharge structure.

3.2 CLIMATOLOGY. The Jacksonville area has a climate approaching the semi-tropical range as it lies near the northern limit of the trade winds or the prevailing easterly breezes that moderate summer and winter temperatures. This influence is pronounced along the coast but decreases in the vicinity of NAS Cecil Field. Prevailing winds are generally northeasterly in the fall and winter and southwesterly in the spring and summer. A wind rose for NAS Cecil Field is shown on Figure 3-2.

The annual mean temperature is 68 to 70 degrees Fahrenheit (°F) with an average summer maximum temperature of 82 to 83 °F. Between December and February, the temperature averages 56 to 57 °F. Summer highs are in the middle to upper 90 °F and winter lows reach to the upper teens, although temperatures seldom drop below freezing.

Figure 3-1 Surface Features and Topography





ANNUAL PERCENTAGE FREQUENCY

SURFACE WIND ROSE

1970

Note:
Wind speed is in Knots

Source: NAS Cecil Field Station Map (Undated).

FIGURE 3-2

WIND ROSE

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

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The region experiences an average of 53 to 54 inches of rainfall per year, most of which accumulates during frequent summer rain showers. At times, 2 or 3 inches of rain may fall within 1 hour. Extended periods of dry weather may occur in any season but are most common in spring and fall. The relative humidity averages 87 percent, and the average annual duration of sunshine is 62 percent of the maximum. Flying conditions are usually excellent, with NAS Jacksonville reporting 86 percent Visual Flight Rules (VFR) and NAS Cecil Field reporting 90 percent VFR. Table 3-1 provides a compilation of local climate data. Winds of hurricane force (75 miles per hour and above with resulting damage) can be expected once in 5 years with significant deviations from the average. Most occur in August, September, and October, although the 6-month period from June 1 to November 30 is considered the Atlantic hurricane season. On an average of once a year, NAS Cecil Field is in the predicted path of a hurricane.

CLIMATE SUMMARY

Temperature (°F):	82 to 83 summer mean upper 90's summer high 56 to 57 winter mean upper teens winter low 68 to 70 annual mean
Rainfall:	53 to 54 inches per year annual 2 to 3 inches per hour intensity 7 inches frequency of 24 hour, 10 year storm
Hurricane:	One predicted pathway per year

3.3 **SURFACE WATER HYDROLOGY**. Most of NAS Cecil Field lies within the St. Johns River basin; a small part lies in the St. Marys River basin. Because of the extremely low gradient, the surface water divide between the St. Johns River basin and the St. Marys River basin is mobile, being dependent on severity and location of recent rain events (Figure 3-3).

Most surface water in Duval County is derived from rainfall within the county, except for a small amount of inflow from neighboring Baker County to the west (Anderson, 1972). Groundwater seepage and springs also contribute to surface water, but to a lesser extent than rainfall.

In the southern half of NAS Cecil Field, swampy areas in the uplands (which are probably perched on locally occurring clayey lenses) are drained by steep gradient (approximately 40 feet per mile), first order, unnamed tributaries that flow directly into the major creeks. The direction of flow in these tributaries is highly dependent on local topographic conditions. The effects of minor changes in local topography on stream flow direction are clearly shown by the occurrence of stream pirating of these first order tributaries from one drainage to another. Minor alterations to local conditions can favor a new drainage path over an existing one.

Drainage at NAS Cecil Field consists of sheet flow across areas of low topographic relief combined with streams and canals of low order (having few to no tributaries). In the St. Johns River basin, streams from west to east include Yellow Water Creek, Rowell Creek, and Sal Taylor Creek. Sal Taylor Creek drains the eastern part of the facility, whereas Rowell Creek receives drainage from the

Table 3-1
Climatic Data

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Month	Air Temperature (°F)			Precipitation (inches)		Percent Relative Humidity		Wind Speed (Knots)				Mean Number of Days			
	Normal		Average Monthly	Normal Total	24 Hour Maximum	7:00 a.m.	1:00 p.m.	Mean Speed	Prevailing Direction	Maximum Speed/ Direction		Clear	Partly Cloudy	Cloudy	Fog
	Maximum	Minimum													
January	67	45	56	2.45	3.02	87	56	7.5	NE	34	S	9	9	13	5
February	69	47	57	2.91	3.84	86	52	8.6	WSW	45	NE	9	7	12	4
March	73	51	62	3.49	3.21	85	49	8.5	NW	38	W	9	10	12	3
April	80	58	69	3.55	4.88	84	47	8.3	SE	42	SW	10	10	10	2
May	86	65	76	3.47	5.09	83	48	7.8	WSW	44	E	10	12	9	2
June	91	71	81	6.33	5.93	85	55	7.6	SW	66	NE	6	12	12	1
July	92	73	83	7.68	10.09	87	57	7.0	SW	43	SW	4	15	12	1
August	91	73	82	6.85	7.93	90	59	6.7	SW	3	NE	5	16	10	1
September	88	71	79	7.56	10.17	90	62	7.8	NE	71	N	5	11	14	1
October	80	62	71	5.16	6.66	90	57	7.8	NE	63	E	11	8	12	3
November	72	51	62	1.69	4.21	88	55	7.5	NE	52	S	12	8	10	5
December	67	45	56	2.22	2.51	88	57	7.2	NW	54	N	9	9	13	5

Notes: Table adapted from Master Plan (SOUTHNAVFACENGCOM, 1989).

°F = degrees Fahrenheit.
NE = northeast.
WSW = west to southwest.
NW = northwest.
SE = southeast.
N = north
S = south
E = east
W = west
SW = southwest.

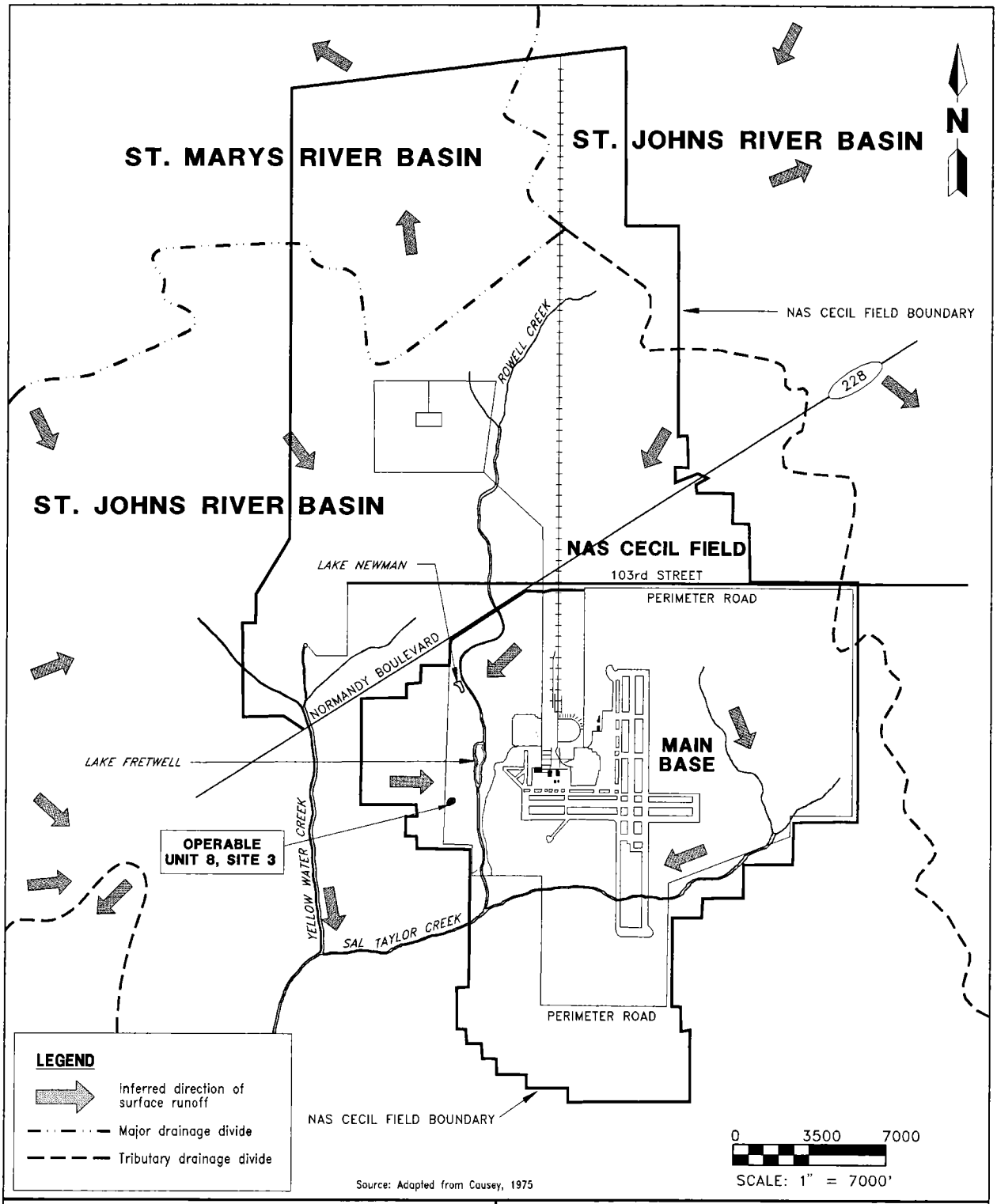

FIGURE 3-3
MAJOR DRAINAGE BASINS AT NAS CECIL FIELD

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REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD JACKSONVILLE, FLORIDA

central part and flows into Sal Taylor Creek in the south central part of the facility. Sal Taylor Creek then flows west into Yellow Water Creek, which flows southward, joining Black Creek approximately 1.5 miles south of the facility boundary (Figure 3-3). Black Creek eventually flows into the St. Johns River.

Lake Fretwell, Rowell Creek, and Sal Taylor Creek are classified by the Florida Department of Environmental Protection (FDEP) as Class III waters and, as such, are designated for recreation, propagation, and management of fish and wildlife and are not used for drinking water resources (Jacksonville Area Planning Board, 1980). Rowell Creek creates the eastern border of OU 8. Effluent from the FOTW is discharged directly to Rowell Creek approximately 20 feet from the Lake Fretwell Dam and has an average flow rate of 1.2 cubic feet per second (ft^3/sec). The total flow in Rowell Creek is the base flow combined with the effluent from the FOTW. Lake Fretwell is a man-made lake approximately 22 acres in size and is stocked with bass for sport fishing. A recreational complex has been developed along its northeastern shoreline (SOUTHNAVFACENGCOM, 1989).

In the vicinity of OU 8, Rowell Creek has a slope of approximately 8 feet per mile. Surface drainage at OU 8 consists of sheet flow from Perimeter Road across the length of the site and drains to Rowell Creek. In its upper reaches above Lake Fretwell, Rowell Creek tends to have a lower gradient (5 feet per mile) and possesses a slightly incised steam bed, whereas downstream gradients tend to be greater (approximately 10 feet per mile) with stream beds that are more deeply incised.

A stream water level (gauging) data collection effort was conducted by the United States Geological Survey (USGS) in the NAS Cecil Field area. Two gauging stations were located in the vicinity of OU 8.

The gauging station in Rowell Creek at Lake Fretwell was numbered 02245922. This station was located directly north of the culvert that runs under the Lake Fretwell Access Road, approximately 300 feet north of the reach of Rowell Creek where the OU 8 groundwater plume is interpreted to discharge. The recorded flow volume at that point since 1992 ranged from 0.27 ft^3/sec to 383 ft^3/sec.

The second gauging station was located approximately 4,000 feet south of Station 02245922 at the point where Rowell Creek and the Perimeter Road Bridge intersect. This gauging station was numbered 02245927. The recorded flow volume at that point since 1992 ranged from 1.4 ft^3/sec to 418 ft^3/sec. An estimate of the amount of dilution that may occur as any groundwater contamination discharges to Rowell Creek can be calculated by comparing the estimated volumetric flow of the contaminant plume with the lowest volumetric flow recorded in Rowell Creek. On average, the dilution would be expected to be greater. These calculations are presented in Appendix K and discussed in Chapter 5.0.

3.4 SOIL. Based on the U.S. Department of Agriculture (USDA) Soil Conservation Service Soil Survey of Duval County (1978), the soil at OU 8 and the immediate surrounding area were mapped as Albany Fine Sand (85 percent), Ridgeland Fine Sand (10 percent), and Arents (5 percent) (in the historical pit area). Major fieldwork for the SCS soil survey was completed in the period 1973 to 1976. Soil names and descriptions were approved in 1976. Therefore, the soil survey was conducted at approximately the same time as the cessation of disposal operations at OU 8.

Albany Fine Sand is described as nearly level to gently sloping, somewhat poorly drained soil on narrow to broad ridges and isolated knolls. Individual areas range in size from 3 to 200 acres. Slopes are smooth and convex. Typically, the surface layer is very dark gray fine sand about 3 inches thick. The subsurface layer is fine sand about 47 inches thick. The upper 26 inches is light yellowish brown and the lower 21 inches is light gray and is finely mottled. The upper 13 inches of the subsoil is strong brown sandy loam that is coarsely mottled with light gray and red. The lower part is light gray sandy clay loam that is coarsely mottled with reddish yellow. It extends below a depth of 80 inches. Under natural conditions, this soil has a water table at a depth of 10 to 30 inches for 1 to 3 months, and at a depth of 30 to 60 inches for 4 to 8 months or more during most years. Permeability is rapid above a depth of 50 inches and moderate below. Natural fertility is low, and organic matter content is low. Available water capacity is low. Natural vegetation consists of scrub oak, second growth slash pine and longleaf pine, and scattered saw palmetto. Native grasses include pineland threeawn and various bluestems. (USDA, 1978).

The Ridgeland series soil is typical of broad flat woodlands, being nearly level and poorly drained. Slopes range from 0 to 2 percent and are smooth to convex. Usually, the surface layer is a dark gray, fine-grained sand, about 6 inches thick. Beneath this layer is a weakly cemented, fine-grained sand that is high in organic content and about 10 inches thick. A hardpan often forms beneath the second soil layer. Under natural conditions a water table occurs within this second layer only 2 to 4 weeks of the year. Permeability is high in the surface layer, moderately high in the second layer, and then decreases significantly where the hardpan is present (USDA, 1978).

Soil in the former pit area is considered to be of the Arents type. Arents is described as nearly level, poorly drained soil that has been reworked by man made earth moving operations. Slopes range from 0 to 2 percent and are smooth to convex. Typically, the soil consists of mixed material. Arents material includes light gray, grayish brown, very pale brown, yellow, black, dark reddish brown, strong brown, and red fine sand, sandy loam, and sandy clay loam. Sandy textures are dominant in most areas. The sandy loam and sandy clay loam fragments are pieces of subsoil material. Pieces of weakly cemented subsoil material are also present in most of this soil. Thickness of the material ranges from 2 to 20 feet. This soil does not have an orderly sequence of horizons (USDA, 1978).

3.5 GEOLOGY.

3.5.1 Historic and Regional NAS Cecil Field lies within a physiographic feature called the Duval Uplands, a feature composed of various Pleistocene (glacial age) marine terraces (Scott, 1988). The Duval Uplands is an irregular flat plain and is composed mostly of the Wicomico marine terrace. Much of NAS Cecil Field is situated on remnants of the Wicomico marine terrace. The remainder of the facility (generally the more southern part) is located on remnants of the Penholoway marine terrace.

Locally, the shallow marine sediments that make up the surficial aquifer are undifferentiated. This sediment consists of mostly quartz sand with some clayey sand and clay. The rest of the surficial aquifer system is within the Pliocene (6 million years ago)-Pleistocene Nashua Formation. Scott and Others (1991) describe the Nashua as a fossiliferous, variably calcareous, sometimes clayey

quartz sand. The fossil content is variable from a shelly sand to a shell hash. The dominant fossils are mollusks.

In the area of investigation, the intermediate aquifer system or confining unit consists of sediment of the Miocene (6 to 24 million years ago) Hawthorn Group. In addition to its clay-rich sediment, the Hawthorn includes near its top a locally continuous carbonate-rich unit of dolostone or shell hash that forms the historical "rock aquifer" or "secondary artesian aquifer," a water-bearing unit often used near the area of interest as a private drinking water source. (Scott and others, 1991)

Below the Hawthorn Group is a series of carbonate-rich units that form the Floridan aquifer system. In the area of investigation, these units consist of (from oldest to youngest): Cedar Keys Formation, Oldsmar Formation, Avon Park Formation, and the Ocala Limestone. A regional geologic column is presented as Figure 3-4.

3.5.2 Site-Specific Geology The subsurface geologic materials recovered during drilling operations at OU 8 indicate that the site is underlain with undifferentiated sediment, probably of Holocene age (recent, less than 10 thousand years old) to Pliocene age (less than 6 million years old) and are between 70 and 98 feet thick. This sediment consists of fine- to medium-grained, poorly-to well-sorted quartz sand with some silty sand, clayey sand, and clay. The sediment grades from dark brown at land surface to brown at approximately 15 feet bls to light brown at 25 feet bls to an approximate depth of between 40 to 50 feet bls. At this point, the sediment grades to a light to medium gray, and continues to approximately 70 feet bls where it grades to dark gray.

From the land surface to approximately 50 feet bls, the sediment generally consists of a thick layer of fine- to medium-grained, poorly to well sorted quartz sand with some interbedded sandy clay and silty sand layers near land surface. The sand layer is underlain by less permeable layers of sandy clay, clayey sand and clay from approximately 50 feet bls to the top of the dolomite (which ranges from 98 feet bls in the source area to 70 feet bls near Rowell Creek). A layer of dark gray plastic clay containing dolomite cobbles was observed immediately above the dolomite over much of the area of investigation with the exception of approximately the last 400 feet before Rowell Creek. A fence diagram (profile) of the subsurface at OU 8 is presented as Figure 3-5 and a cross-section is shown on Figure 3-6. Lithologic logs from OU 8 soil borings are presented in Appendix C.

Beneath the clay layer is sediment of the Miocene age (between 6 and 24 million years old) Hawthorn Group. Locally, the uppermost layers of the Hawthorn Group include a continuous carbonate-rich unit of dolomite and/or shell hash. Historically, this unit has been called the "rock aquifer" or "secondary artesian aquifer." In this report, this unit is simply considered to be a water producing zone of the intermediate aquifer system. This unit was encountered in deep monitoring well boreholes located immediately below and downgradient of the former waste pit (CEF-3-33DD, CEF-3-7DD, and CEF-3-30DD) and in groundwater screening borings (GS-3-20, GS-3-31, GS-3-32, GS-3-69, GS-3-70, and GS-3-71). Beneath OU 8, the unit consists of a moderate yellowish brown to medium dark gray dolomite. The unit can be fossiliferous, which generally consists of shell fragments. The dolomite also contains voids and caverns, which contain shell fragments, clay, and sand. At the site, this unit is at least 25 feet thick and occurs at a depth of approximately 100 to 125 feet bls.

TIME (million years ago)	Stratigraphic Units	Approximate Elevation (feet, mean sea level)
		50
1.8	Undifferentiated Pleistocene and Recent Sediments	
	Nashua Formation	
5		
	Hawthorn Group	
	Coosawatchie Formation	20
	(Charlton Member)	(20 to -10)
	Marks Head Formation	-110
	Penny Farms Formation	-200
24		
	Ocala Limestone	-350
	Avon Park Formation	-700
	Oldsmar Formation	< -1,000
55		
	Cedar Key	< -1,200
62		-1,700

Sources:
Scott, 1988; and **Scott and others,** 1991.

FIGURE 3-4

GEOLOGIC COLUMN

REMEDIAL INVESTIGATION,
OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

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Figure 3-5 Lithologic Fence Diagram

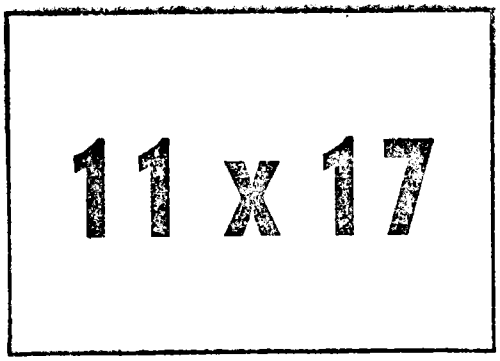


Figure 3-6 Lithologic Cross Section

3.6 HYDROGEOLOGY. In the area of this investigation, there are three water-bearing systems. According to the Florida hydrostratographic nomenclature (Scott, 1988) these units, from most shallow to deepest are: the Upper Zone of the surficial aquifer system (UZS), the Intermediate Zone of the surficial aquifer system (IZS), the Lower Zone of the surficial (LZS), the carbonate-rich Upper Zone of the Hawthorn (UZH) aquifer system, and the Floridan aquifer system.

3.6.1 Aquifer Systems At OU 8, the surficial aquifer system is present in the undifferentiated sediment described above. The UZH aquifer system-confining unit is present as the dolomite (historical "rock" or "secondary artesian" aquifer) underlying the layer of clay with dolomite fragments. The Floridan aquifer system was not encountered during the investigation at OU 8.

3.6.1.1 **Surficial Aquifer System** The surficial aquifer system in the area of OU 8 is composed of undifferentiated sediments. The undifferentiated sediments consist of mostly quartz sand with some clayey sand and clay. The Pliocene-Pleistocene (6 million to 1 million years ago) Nashua Formation and the thick clay layer separating the Nashua from the differentiated sediments at other OUs on Cecil Field were only encountered in the northern part of the site. As a result, the surficial aquifer at OU 8 is not separated into an upper and lower zone based on geology, but rather is considered as one unit. Well screens were placed to investigate conditions in the shallow (UZS), intermediate (IZS), and deep (LZS) portions of the surficial aquifer system. The surficial aquifer system is under water table conditions (unconfined) and is a very fine-grained quartz sand with up to 10 percent silt and clay. The unconsolidated sediments extend downward to the top of the clay unit, which separates the surficial aquifer system from the intermediate aquifer (Figure 3-5).

3.6.1.2 **Intermediate (UZH) Aquifer System** In Duval County, the intermediate aquifer system or confining unit consists of sediment assigned to the Miocene (23 to 5 million years ago) Hawthorn Group. In addition to its clay rich sediment, the Hawthorn includes near its top a locally continuous carbonate-rich unit of dolomite with significant secondary (e.g., fractures) porosity (pore space or void volume ratio), possibly including shell hash or sand. This carbonate-rich unit forms the historical "rock aquifer" or "secondary artesian aquifer," a water-bearing unit widely used in this region as a private drinking water source. For this report, this unit will be referred to as the UZH. In the NAS Cecil Field area, the unit is approximately 20 to 25 feet thick and occurs at a depth of 100 to 125 feet bls. At OU 8 this unit was observed from depths ranging from 70 to 98 feet bls. The top of this unit is irregular and may represent an erosional unconformity. The total thickness of the entire Hawthorn Group (including the underlying clayey confining beds) exceeds 300 feet in this area (Scott and others, 1991). At OU 8, all of the "DD" monitoring wells are screened in the UZH.

3.6.1.3 **Floridan Aquifer System** The Floridan aquifer system is the principal source of groundwater derived for public drinking water in most of northern peninsular Florida. At Cecil Field, five Navy potable water supply wells (that are connected to the Cecil Field water supply system) and an irrigation well produce water from this aquifer system. In the area of investigation, the system comprises (from oldest to youngest) the Oldsmar Formation, the Avon Park Formation, and the Ocala Limestone. The Hawthorn Group, which forms a confining zone, unconformably overlies the Floridan aquifer system. Geraghty & Miller (1983) report that the transmissivity of the Floridan aquifer a few miles east of the base is 25,400 square feet per day (ft^2/day). Leve (1966) and Geraghty

& Miller (1983) report that groundwater within the Floridan aquifer flows east-northeast in the vicinity of NAS Cecil field.

The physical and geochemical characteristics of the aquifers encountered at OU 8 are discussed below.

3.6.2 Physical Aquifer Characteristics To better understand the rate and direction of groundwater movement beneath OU 8, certain physical properties of the aquifers were measured at the various well screen locations. These properties include hydraulic gradient (calculated from groundwater level elevation data) and hydraulic conductivity (quantitative measure of aquifer permeability to water) calculated from slug test data. Using this data and an estimated effective porosity (the pore space through which water flows), flow rates within the aquifers are subsequently estimated.

3.6.2.1 Groundwater Elevations and Flow Directions As described in Subsection 2.5.2, groundwater level measurements were recorded at monthly intervals for all monitoring wells at OU 8. By subtracting these measurements from the surveyed top of well casing elevation, a groundwater elevation (to 0.01 foot NGVD) is calculated for each well. The water level and groundwater elevation data are presented in Appendix I. The interpretation of these results is discussed below.

Surficial Aquifer System. The groundwater elevation data for the surficial aquifer have been plotted on plan view and cross-section contour maps to facilitate the interpretation of the hydraulic gradients. A plan view for the UZS well water levels is presented as Figure 3-7. The depth to groundwater in the OU 8 area of investigation is typically 1 (in the wet season) to 4 feet bls. A cross-section (Figure 3-8) was prepared, running parallel to the flow direction from the source area, as indicated on the plan view map (Figure 3-7). The general groundwater flow direction in the surficial aquifer is to the east-southeast. There is also a downward flow component which is evident at the waste disposal pit area, and continues for approximately 900 to 1,000 feet downgradient (east-southeast). At this point, the vertical flow potential becomes upward. Both the upward and horizontal gradients become increasingly steeper over the remaining 300 to 400 feet to Rowell Creek. The pronounced upward gradients indicate that the surficial aquifer discharges to Rowell Creek. In the wetland west of Rowell Creek, the water table is near land surface but groundwater has not been observed discharging to land surface.

The average horizontal gradient in the surficial aquifer measured along the flowpath from the waste disposal pit area (CEF-3-3S) to Rowell Creek (CEF-3-20S) for March through September 1994 is approximately 0.016 feet per foot (ft/ft). As discussed above, the gradients increase as the groundwater approaches Rowell Creek, so the horizontal gradients at the waste disposal pit area are less than the gradients near the creek. The average horizontal gradient at the waste disposal pit area (CEF-3-8S to CEF-3-13S, and CEF-3-4S to CEF-3-5S) for March through September 1994 is approximately 0.005 ft/ft. The horizontal gradient for the last 300 feet before Rowell creek is approximately 0.035 ft/ft, estimated from the elevation contours from August 1994 (Figure 3-8).

Intermediate Aquifer System. Regional groundwater flow in the UZH is expected to the east (Fairchild, 1972). The limited water level data from the intermediate aquifer at OU 8 indicates an easterly flow component. The potentiometric surface

Figure 3-7 Shallow Surficial Aquifer Groundwater Elevation

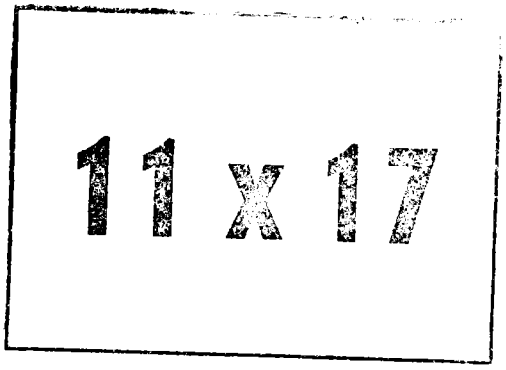
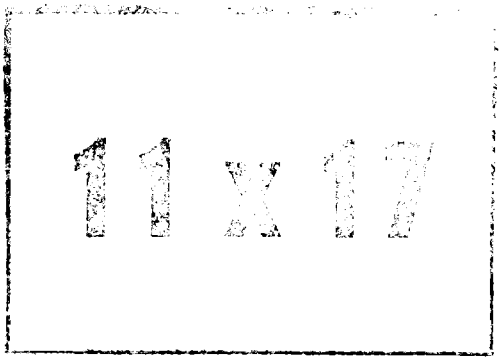


Figure 3-8 Groundwater Elevation Contour and Flowpath Cross Section



in this unit is generally higher than the potentiometric surface in the lower zone of the surficial aquifer. As a result, there is the potential for upward leakage of water from this unit to the surficial aquifer system. This is particularly true near Rowell Creek, where topographic relief and lowering of surficial heads accentuates this head difference. At OU 8, the groundwater flow direction in the intermediate aquifer is interpreted to the east-southeast, towards Rowell Creek. The horizontal gradient in the intermediate aquifer is approximately 0.0010 ft/ft, based on water level data from May through August 1994.

A vertical upward gradient from the intermediate aquifer to the surficial aquifer is present, as documented by the higher head in the "DD" wells compared to the surficial wells. The groundwater appears to be flowing from the intermediate aquifer to the surficial aquifer beginning southeast of well cluster CEF-3-28S, 29D, and 30DD. The vertical gradients and directions for each well cluster at OU 8 are summarized in Table 3-2.

3.6.2.2 **Hydraulic Conductivity** Slug tests were conducted at all existing monitoring wells at OU 8 to estimate hydraulic conductivity (see Subsection 2.7.2). The results of the slug tests are presented in Appendix H, and the calculated hydraulic conductivities are summarized in table 3-3 for the surficial aquifer and Table 3-4 for the intermediate aquifer.

Surficial Aquifer System. Hydraulic conductivity (K) values were estimated for each well in the surficial aquifer at OU 8. The mean K values for the UZS wells, IZS wells, and LZS wells are 7.5 ft/day, 14 ft/day, and 16 ft/day, respectively. Based on the results of the aquifer pumping test conducted by the USGS at Cecil Field, the hydraulic conductivity of the surficial aquifer ranges from 3 to 5 ft/day (USGS, 1994).

Intermediate Aquifer System. The hydraulic conductivity (K) value was estimated for monitoring well CEF-3-33DD in the intermediate aquifer at OU 8 at 11 ft/day. Based on the results of the USGS aquifer test at Cecil Field, the hydraulic conductivity of the upper part of the intermediate aquifer is estimated at 40 ft/day (USGS, 1995).

3.6.2.3 **Aquifer Flow Rate** The seepage velocity (rate at which groundwater moves through the aquifer) for the groundwater at OU 8 was calculated using the hydraulic conductivities and hydraulic gradients presented above and an estimated effective porosity. The formula used is:

$$V = Ki / n \qquad (1)$$

where

V = horizontal seepage velocity
K = horizontal hydraulic conductivity
i = horizontal hydraulic gradient
n = estimated effective porosity

Surficial Aquifer System. The results of the slug tests show hydraulic conductivities of 7.5 ft/day in the UZS, 14 ft/day in the IZS, and 16 ft/day in the LZS. The aquifer tests conducted by the USGS at the base indicate that 3 ft/day is a representative hydraulic conductivity for the surficial aquifer (USGS, 1995). Using this hydraulic conductivity, an effective porosity of 0.20 (USGS, 1995), and the horizontal gradients presented above, seepage velocity for each

Table 3-2
Vertical Hydraulic Gradient Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Aquifer Zone	Well Pair	Average Vertical Hydraulic Gradient (feet/foot)	Average Direction of Flow
Surficial Aquifer, Shallow and Intermediate Zone			
	CEF 3-13S and CEF 3-14I	0.0035	Down
	CEF 3-8S and CEF 3-9I	0.0051	Down
	CEF 3-25S and CEF 3-26I	0.0064	Down
	CEF 3-20S and CEF 3-21I	0.2745	Up
Surficial Aquifer, Shallow and Deep Zone			
	CEF 3-8S and CEF 3-10D	0.0447	Down
	CEF 3-7S and CEF 3-7D	0.0064	Down
	CEF 3-13S and CEF 3-15D	0.0282	Down
	CEF 3-25S and CEF 3-27D	0.0089	Up
	CEF 3-16S and CEF 3-17D	0.0112	Up
	CEF 3-28S and CEF 3-29D	0.0758	Up
	CEF 3-18S and CEF 3-19D	0.0793	Up
	CEF 3-31S and CEF 3-32D	0.1888	Up
	CEF 3-34S and CEF 3-35D	0.1488	Up
Surficial Aquifer, Intermediate and Deep Zone			
	CEF 3-9I and CEF 3-10D	0.0826	Down
	CEF 3-14I and CEF 3-15D	0.0499	Down
	CEF 3-26I and CEF 3-27D	0.0264	Up
	CEF 3-21I and CEF 3-22D	0.1309	Up
	CEF 3-11I and CEF 3-12D	0.0663	Up
Surficial Aquifer, Deep Zone and Intermediate Aquifer			
	CEF 3-7D and CEF 3-7DD	0.0536	Down
	CEF 3-15D and CEF 3-33DD	0.0002	Up
	CEF 3-29D and CEF 3-30DD	0.0599	Up

Note: 1. Average of monthly water level readings from June, July, August, and September 1994.

Table 3-3
Hydraulic Conductivity Estimates for the Surficial Aquifer System

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Upper Zone of Surficial System (UZS)		Intermediate Zone of Surficial System (IZS)		Lower Zone of Surficial System (LZS)	
Well	K in ft/day	Well	K in ft/day	Well	K in ft/day
CEF-3-13S	6.3	CEF-3-9I	21	CEF-3-17D	2.8
CEF-3-16S	1.1	CEF-3-14I	14	CEF-3-10D	21
CEF-3-18S	9.2	CEF-3-26I	6.9	CEF-3-15D	20
CEF-3-20S	1.5			CEF-3-27D	19
CEF-3-23S	15				
CEF-3-25S	5.8				
CEF-3-28S	17				
CEF-3-31S	4.4				

Notes: K in ft/day = hydraulic conductivity from slug test data in feet per day.

Upper Zone of Surficial System (UZS):
number = 8
minimum = 1.1 ft/day.
maximum = 17 ft/day.
mean = 7.5 ft/day.
median = 6.1 ft/day.

Intermediate Zone of Surficial System (IZS):
number = 3
minimum = 6.9 ft/day.
maximum =21 ft/day.
mean = 14 ft/day.
median = 14 ft/day.

Lower Zone of Surficial System (LZS):
number = 4
minimum = 2.8 ft/day.
maximum = 21 ft/day.
mean = 16 ft/day.
median = 20 ft/day.

Table 3-4
Hydraulic Conductivity Estimates for the Upper Zone of the Hawthorn Group

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Well	K in ft/day
CEF-3-33DD	11

Notes: K in ft/day = hydraulic conductivity from slug test data in feet per day assuming an aquifer thickness of 15 feet (one and a half times the screen length).

number of runs = 1
minimum = 11 ft/day.
maximum = 11 ft/day.
mean = 11 ft/day.
median = 11 ft/day.

gradient area is calculated. For the entire distance from the waste disposal pit area to Rowell Creek (gradient of 0.016 ft/ft) the seepage velocity is estimated at 88 feet per year (ft/yr). At the waste disposal pit area (gradient of 0.005 ft/ft), the seepage velocity is estimated at 27 ft/yr, and in the last 300 feet before Rowell Creek (gradient of 0.035 ft/ft) a seepage velocity of 190 ft/yr is estimated.

Intermediate Aquifer System. For the intermediate aquifer, a hydraulic conductivity of 40 feet/day (USGS, 1995), a horizontal gradient of 0.0010 feet/foot (average from May through August), and an effective porosity of 0.20 (USGS, 1995) is used, resulting in an estimated seepage velocity of 73 ft/yr.

A summary of the physical characteristics of each aquifer encountered at OU 8 is presented in Table 3-5.

3.6.3 Aquifer Geochemistry Statistical analyses were conducted on the inorganic analytical results from all wells at OU 8 to identify natural geochemical characteristics. First, a descriptive analysis was performed for all inorganics in all wells. Then, a comparative statistical analysis was conducted (Mann-Whitney U Test) for select inorganic parameters. Comparisons were made between site data and background data, and between the various depth intervals at the site. The statistical analysis indicates there are three distinct geochemical zones at OU 8. These are the "S" interval (UZS) wells, the "I" interval (IZS) wells and the "D" (LZS) plus "DD" (UZH) interval wells. The statistical analysis data are presented in Appendix L and summarized below.

Table 3-5
Summary of Aquifer Characteristics

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Parameter	Surficial Aquifer	Intermediate Aquifer
Hydraulic gradient (feet per foot)	0.0059 to 0.028	0.0013
Hydraulic conductivity (feet per day)	3 to 5	40
Effective porosity	0.20	0.20
Groundwater seepage velocity (feet per year)	27 to 130	73

The groundwater in the UZS interval wells had typically large variations in the content of inorganic parameters, which is normal for shallow water table aquifers. The UZS wells contained widely varying water types (from sodium (Na)/sulfate (SO_4) through Na/chloride (Cl) to calcium (Ca)/bicarbonate (HCO_3) with total dissolved solids in the 45 to 570 mg/ℓ range and trace metals.

The IZS interval wells have a consistent NaCl to $CaHCO_3$ water type with total dissolved solids in the 10 to 270 mg/ℓ range. The water chemistry in these wells is consistent with short duration, large volume infiltration of storm waters. If supplied in sufficient volume, this infiltrating rain water might not be

and would still be low in TDS and have a fairly low Ph (approximately 5 standard units). This relatively low Ph water could easily mobilize some adsorbed cations, leading to an increased dissolved metals content. These characteristics are likely being attenuated as the water moves horizontally towards the discharge zone as is illustrated by the relative positions of the four wells 9I, 14I, 21I, and 26I on the Piper diagram (Appendix L).

The LZS and UZH interval wells are typical of wells in a carbonate-rich environment. They are of predominantly Ca/HCO_3 water types with total dissolved solids in the 230 to 360 mg/ℓ range and no significant trace metals. The LZS wells are less carbonate rich upgradient of OU 8, where flow is predominantly horizontal, and more carbonate rich downgradient of OU 8 where a strong upward gradient from the carbonate-rich UZH is present. Upgradient of OU 8, the system appears to be a well stratified, predominantly horizontal flow regime. The flow begins to have a strong upward component downgradient of OU 8. In this area (near CEF-3-21I) the IZS and UZS interval wells begin to resemble the typical LZS and UZH interval water type as can be seen from their position midway between the UZS-IZS cluster and the LZS-UZH cluster on the Piper diagram (Appendix L).

3.6.4 Summary of the Hydrogeologic Conditions In the area of investigation, there are three water-bearing systems. In descending order, these are the surficial aquifer (UZS,IZS,LZS), the intermediate aquifer (UZH), and the Floridan aquifer. Between each system is an aquitard (less permeable unit) or confining unit. At OU 8, only the surficial aquifer and the top of the intermediate aquifer were investigated.

The surficial aquifer is unconfined and composed of undifferentiated fine sand with some clayey sand and clay. This sediment extends to approximately 70 to 100 feet bls and is underlain by a layer of clay with dolomite cobbles. The depth to groundwater in the surficial aquifer is typically between 1 (in the wet season) and 4 feet bls. Groundwater flow in the surficial aquifer is generally to the southeast, toward the wetlands east of Perimeter Road, at an average rate of 88 ft/yr. At this rate, groundwater from under the disposal pit would have migrated the 1,400 feet to Rowell Creek in 16 years. Vertical gradients indicate that the surficial aquifer discharges to the creek. Based on the horizontal seepage velocity, contaminants from the waste disposal pit area which migrate at the same rate as groundwater (unattenuated or not retarded) could have reached Rowell Creek approximately 16 years after disposal began.

Upgradient of OU 8, the geochemistry of the surficial aquifer is indicative of recharge by rainfall, but downgradient, where the strong upward gradient is present, the geochemistry is increasingly bicarbonate-rich with depth, to the point of resembling the geochemistry of the intermediate aquifer. This change in geochemistry, along with the local upward gradient in the surficial aquifer and widespread upward vertical potential between the intermediate and surficial aquifer, indicates that groundwater is migrating from the intermediate aquifer into the surficial aquifer. This same upwelling of groundwater from the UZH to the surficial aquifer was observed at OU 7 in the Sal Taylor Creek drainage system.

The intermediate (UZH) aquifer is encountered at the waste disposal pit area at approximately 100 feet bls. In addition to its clay-rich sediments, the Hawthorn includes near its top a locally continuous carbonate rich unit of dolomite with significant secondary porosity (fractures), possibly including shell hash, or

sand. This carbonate-rich unit forms the historical "rock aquifer" or "secondary artesian aquifer," a water-bearing unit widely used in this region as a private drinking water source.

In the NAS Cecil Field area, the "secondary artesian aquifer" is approximately 20 to 25 feet thick. The top of this unit is irregular and may represent an erosional unconformity. The groundwater flow in the intermediate aquifer at OU 8 is to the east, toward Rowell Creek, at an average rate of approximately 95 ft/yr.

3.7 DEMOGRAPHY AND LAND USE. Information presented in this section was collected to identify, enumerate, and characterize human populations potentially exposed to contaminants released from OU 8. This information is necessary to support the human health risk assessment for the site.

3.7.1 Population and Land Use In the Resource Availability Inventory Report distributed by the St. Johns River Water Management District (1990), the population of Duval County is reported to be increasing with time, and continued growth is projected through the year 2000. The military personnel at NAS Cecil Field and surrounding military bases such as NAS Jacksonville, Naval Station Mayport, and Naval Fuel Depot (NFD) Jacksonville contribute significantly to this population. BRAC actions are expected to influence the projected growth through the year 2000. NAS Cecil Field is a subordinate command under the Commander Strikefighter Wings, Atlantic Fleet. The facility supports a workforce of approximately 10,000 civilian and military personnel and can accommodate approximately 3,500 residents in base quarters and housing (ABB-ES,1992b).

The area surrounding NAS Cecil Field is rural and sparsely populated. The city center of Jacksonville lies approximately 14 miles to the northeast. Land use surrounding NAS Cecil Field is primarily forestry with some light agricultural and ranching use. Small communities and scattered dwellings associated with these activities are located in the vicinity. A small residential area on Nathan Hale Road, which abuts the NAS Cecil Field property to the west, typifies these rural communities. The nearest incorporated municipality is the town of Baldwin, whose center lies approximately 6 miles to the northwest of the main facility entrance.

To the east of NAS Cecil Field, the rural surroundings grade into a suburban fringe bordering the major east to west roadways. Low commercial use, such as convenience stores, and low density residential areas characterize the land use (ABB-ES, 1992b). A development called Villages of Argyle, when complete, is planned to consist of seven separate villages or communities that will ultimately abut NAS Cecil Field to the south and southeast. A golf course and residential area also border NAS Cecil Field to the east (SOUTHNAVFACENGCOM, 1989). In the immediate vicinity of OU 8, no housing is present. The site is located within the controlled access part of NAS Cecil Field and security passes are needed for admittance onto the base. However, OU 8 is accessible once entrance to NAS Cecil Field has been attained as the site is not fenced.

3.7.2 Public Water Supply and Groundwater Use The groundwater in the surficial, intermediate, and Floridan aquifers is classified as Class G-II, intended for potable use (Florida Legislature, 1990).

The surficial aquifer system is described in Section 3.6. Water obtained from the surficial aquifer system is primarily used for lawn irrigation and domestic purposes, including heat exchange units in heating and air conditioning systems. The yield of the wells is typically between 30 and 100 gallons per minute and water use estimates for the surficial aquifer system are approximately 10 to 25 million gallons per day for the City of Jacksonville (Jacksonville Planning Department, 1980). The surficial aquifer level and flow directions have been altered over time because of increased water use and pumping rates.

The intermediate aquifer system is described in Section 3.6. The quality of water from the limestone, shell, and sand of the UZH is hard to very hard and has moderate dissolved solids levels. The iron content is variable and some areas contain hydrogen sulfide (Geraghty & Miller, 1985). At least 50,000 homes in the Jacksonville area obtain water from private wells in the UZH.

The Floridan aquifer system is described in Section 3.6. It is one of the most productive aquifers in the world, and is the primary source of water in the Jacksonville area.

NAS Cecil Field obtains its potable water from five Navy potable water supply production wells cased to and drawing from the Floridan aquifer system within the facility property boundary (Figure 3-9). These wells are placed at depths ranging from 400 to 800 feet bls (NAS Cecil Field, 1990). Water is extracted from these wells and stored in reservoirs and elevated water tanks. There is one 500,000-gallon reservoir, two 200,000-gallon reservoir, and two 250,000-gallon elevated water tanks at NAS Cecil Field. The five wells have a combined capacity of approximately 4.8 million gallons per day (Envirodyne Engineers, 1985). Water from these wells is used for potable, industrial, and heating purposes. Treatment consists of chlorination and aeration. There are no backup supplies of potable water currently on the base.

Other wells on NAS Cecil Field reportedly tap the UZH (Geraghty & Miller, 1983). These wells are not a part of the NAS Cecil Field potable water supply system and are not used for drinking water. These wells are used as individual water supplies along the outlying areas of the base that are not served by the main water system. Water from these wells is used for flushing toilets and irrigation (Envirodyne Engineers, 1985).

The Florida Department of Health and Rehabilitative Services estimates that there are approximately 75 private wells located within a 2-mile radius of NAS Cecil Field and they reportedly produce from within the UZH. Two potable supply wells are present in a small unincorporated community on Nathan Hale Road, immediately west of NAS Cecil Field and south of Normandy Boulevard (State Road 228). These private wells are 64 and 125 feet deep (Geraghty & Miller, 1983).

3.8 ECOLOGY. Information on the ecological setting of NAS Cecil Field is available in the IAS completed by Envirodyne Engineers in 1985. This information is summarized in the following sections for aquatic and terrestrial wildlife habitats. The OU 8 study area is located to the southwest of Lake Fretwell, and west of Rowell Creek as it flows south from Lake Fretwell. The study area is characterized by disturbed uplands in the northwesterly and westerly parts, and palustrine wetlands in the eastern portion, adjacent to Rowell Creek. Terrestrial areas of OU 8 consist of scrubby flatwoods and disturbed, grassy uplands. A

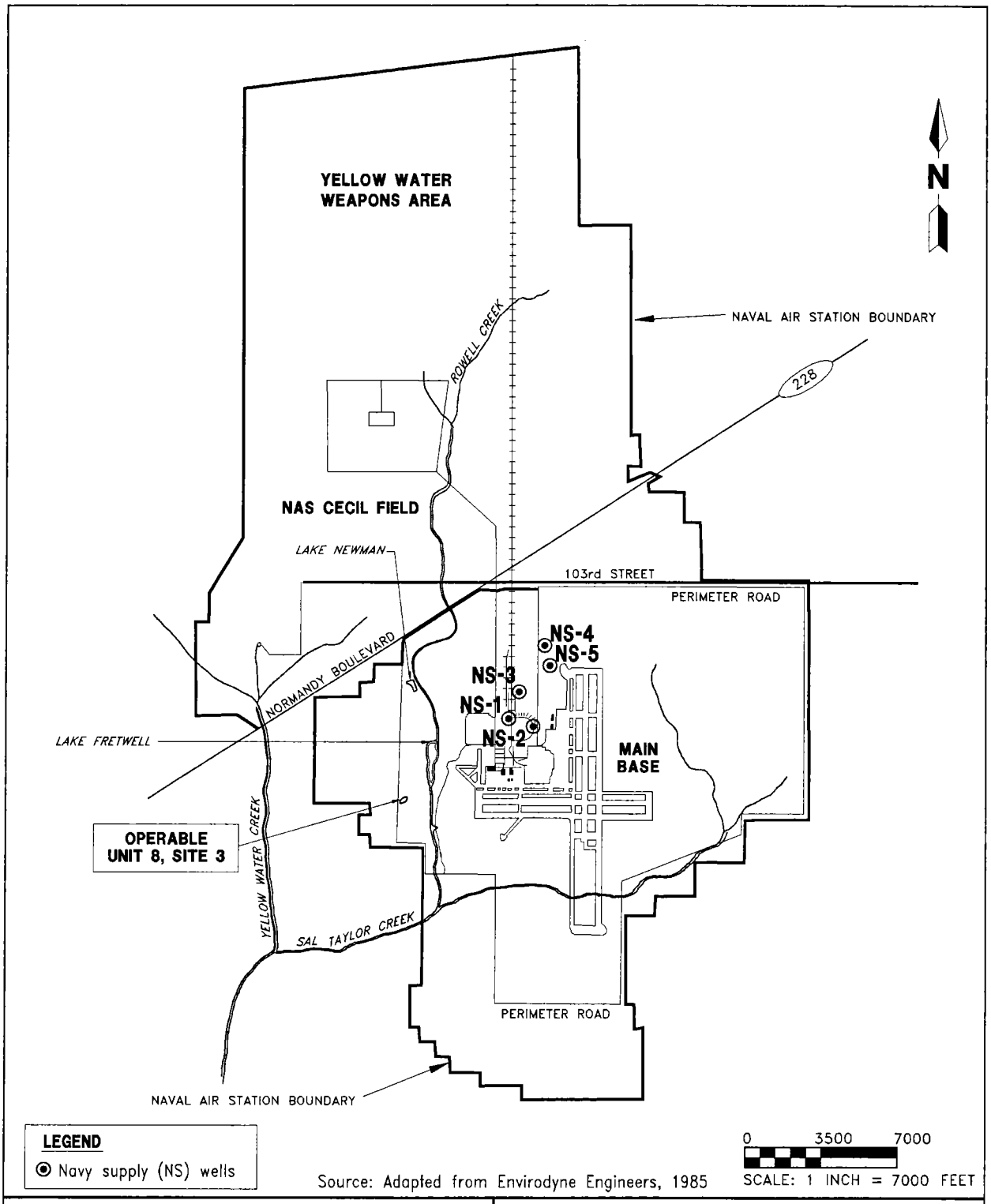


FIGURE 3-9
POTABLE WATER SUPPLY WELLS

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palustrine freshwater wetland system associated with the Rowell Creek floodplain is mapped under the Cowardin (Cowardin and others, 1979) system as a mixture of Palustrine Forested and Scrub-Shrub Broad-Leaved Deciduous classes, with some Palustrine Emergent Persistent mixed in the northeastern part. Rowell Creek, which bounds OU 8 to the east, flows from Lake Fretwell and the OU 8 wetlands in a southerly direction to Sal Taylor Creek.

3.8.1 Aquatic Habitats Small streams, totaling approximately 8 miles, are present on NAS Cecil Field property. These streams include Yellow Water Creek, Sal Taylor Creek, and Rowell Creek, as well as smaller tributaries. Two man-made lakes are located on the facility: Newman Lake and Lake Fretwell. Both lakes are upgradient of OU 8 and are a part of the Rowell Creek drainage area. These waters are classified as Class III Waters for recreation, propagation, and management of fish and wildlife by the FDER (Florida Legislature, 1995).

A total of 19 species of fish from 6 families were identified at NAS Cecil Field during the ecological field investigation in 1993. Eight of the total species were representative of the Centrarchidae family (sunfish) and four were in the Cyprinidae family (minnows). Other families represented in the fish surveys included the suckers (*Catostomidae*), killifishes (*Cyprinodontidae*), live bearers (*Poeciliidae*), and the silversides (*Atherinidae*).

A semiquantitative macroinvertebrate survey was conducted at NAS Cecil Field in June and July 1993 (EA Engineering, Science, and Technology, 1994). The 1993 sampling event included sampling of aquatic macroinvertebrate communities at locations throughout Rowell Creek and Lake Fretwell. One sampling location from this sampling event was located in Rowell Creek, downgradient from OU 8. This Rowell Creek station (station RC-BIO-3) is located approximately 1,400 feet east of the disposal area within the area where the groundwater plume from OU 8 is interpreted to discharge.

Sampling completed at the OU 8 sampling station included collection of parameters describing aquatic habitat, collection of macroinvertebrates by use of dip net sweeps, collection of macroinvertebrates by use of Hester-Dendy artificial substrates, collection of macroinvertebrates by use of three replicate petite ponar dredge samples. The results of the OU 8 macroinvertebrate sampling event showed no significant effects from the OU 8 groundwater plume and are presented in Chapter 5 of the baseline ecological risk assessment for OU 8 (ABB-ES, 1995a).

3.8.2 Terrestrial Wildlife Habitats Three major terrestrial habitat types were identified at NAS Cecil Field during the IAS. These habitats are pine flatwoods association, sandhill communities, and swamp forest associations (Envirodyne Engineers, 1985). An upland community consisting primarily of disturbed uplands with some characteristics of a dry prairie occurs in the western portion of OU 8, both to the north and south of the Lake Fretwell Service Road. The OU 8 disposal pit is located in this portion of the site. This area consists of flat, sandy soil with dense ground cover, and few to no trees. Typical vegetation identified here includes ragweed (*Ambrosia* sp.), goldenrod (*Solidago fistulosa*), dog fennel (*Eupatorium capillifolium*), bracken fern (*Pteridium aquilinum*), sand blackberry (*Rubus cuneifolius*), golden ragweed (*Senecio aureus*), and muscadine grape (*Vitis rotundifolia*). Scattered wax myrtle (*Myrica cerifera*) and slash pine (*Pinus elliotii*) are also present.

A small part of the northern end of the study area most closely resembles the Florida Natural Areas Inventory (FNAI, 1990) Scrubby Flatwoods cover type. The area is flat and sandy with scattered pine trees, a sparse shrubby understory, and barren sand. Typical vegetation identified in this area includes longleaf pine (*Pinus palustris*), loblolly pine (*Pinus taeda*), saw palmetto (*Serenoa repens*), myrtle oak (*Quercus myrtifolia*), goldenrod (*Solidago fistulosa*), and sand blackberry (*Rubus cuneifoluis*).

The pine flatwoods association are the most extensive forest in Duval County. The soil is sandy with a moderate amount of organic matter in the top few centimeters and an acidic, organic hardpan 0.3 to 1.0 meter (1 to 3 feet) beneath the surface. This hardpan reduces rainfall percolation and impedes root penetration during droughts. Thus standing water is common during the rainy season (Envirodyne Engineers, 1985).

Three major types of pine flatwoods occur in Florida: (1) longleaf pine (*Pinus palustris*) flatwoods, in which longleaf pine is the dominant overstory tree species in well drained areas; (2) slash pine (*P. elliottii*) flatwoods, in which slash pine is the dominant overstory species in areas of intermediate wetness; and (3) pond pine (*P. serotina*) flatwoods, in which the pond pine is the dominant tree species typical in poorly drained areas (Envirodyne Engineers, 1985).

The forestry program at NAS Cecil Field, which began in 1963, has resulted in reforestation of 97 percent of the area with slash pine. Thus, pine flatwoods are the predominant community type for NAS Cecil Field. Vegetation characteristics of disturbed locations found within the reforested areas include: fennel (*Eupatorium* sp.), beggar's tick (*Bidens* sp.), greenbriar (*Smilax* sp.), sandbur (*Cenchrus* sp.) and rattlebox (*Sesbania* sp.) (Envirodyne Engineers, 1985).

Sandhill communities occur on well-drained white to yellowish sands. Longleaf pines (*P. palustris*) form the overstory and a variety of oaks (*Quercus* sp.) form the understory in mature natural stands. However, due to forestry and prevention of fires, oaks are now predominant and prevent the reestablishment of pine. When this situation is perpetuated, the sandhill community becomes similar to a xeric (dry) or mesic (balanced moisture supply) hammock with a dense stand of oaks and changes in the growth and development of the underbrush. This situation occurs infrequently at NAS Cecil Field. Many of the former sandhill areas are predominated by plant species characteristic of disturbed areas including fennel, beggar's tick, green briar, sandbur, and rattlebox (Envirodyne Engineers, 1985).

The swamp forest association is predominated by deciduous hardwoods that border rivers and streams where the forest floor is saturated or submerged during part of the year. The southern part of Rowell Creek, Sal Taylor Creek, and some of its lesser tributaries to the east are typified by this association at NAS Cecil Field. Red maple (*Acer rubrum*), water oak (*Quercus nigra*), swamp bay (*Persea palustris*), and sweet gum (*Liquidambar styraciflua*) are common along these drainage pathways. Occasional bayheads, scattered about in the pine flatwoods, harbored many of the same species stated above as well as an occasional bald cypress (*Taxodium distichum*) (Envirodyne Engineers, 1985).

3.8.3 **Wetlands** Wetlands identified at NAS Cecil Field include bay swamp, cypress domes, and hardwood swamp (SOUTHNAVFACENGCOM, 1989). The locations of wetlands are mapped on Figure 3-10. The wetland identified at OU 8 is best described as a mixture of Palustrine Forested and Scrub-Shrub Broad-Leaved Deciduous classes,

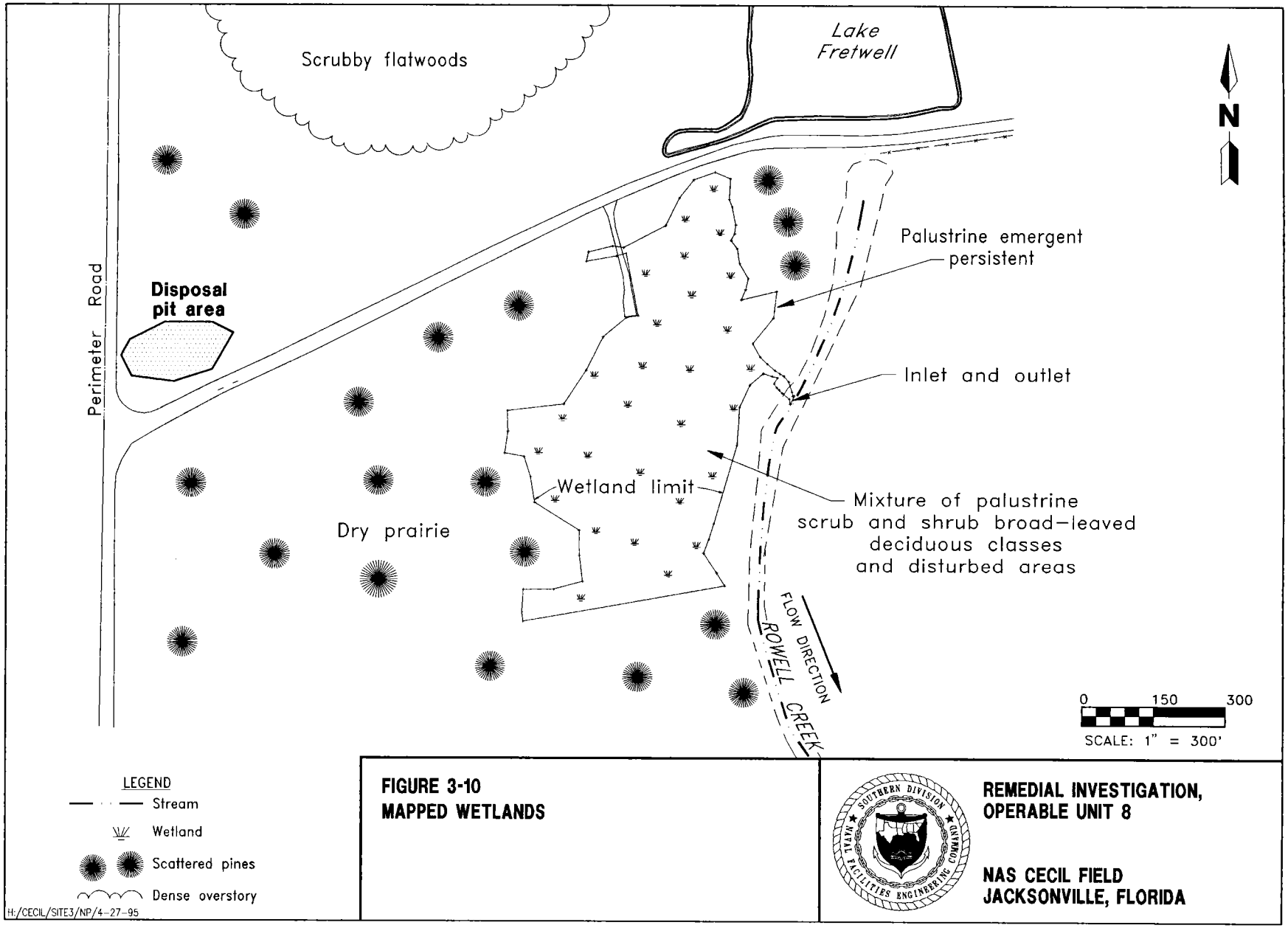

FIGURE 3-10
MAPPED WETLANDS

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

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JACKSONVILLE, FLORIDA

with some Palustrine Emergent Persistent mixed in the northerly part of the wetland. A summary of the OU 8 wetland classes and indicator species is presented in Table 3-6.

The mixed forested and scrub-shrub communities most clearly resemble the FNAI classifications of Bottomland Forest, Wet Prairie, and Baygall. The Bottomland Forest is characterized by a low-lying,closed canopy hardwood forest. Dominant trees are red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*) and various pines. The shrubby understory includes wax myrtle (*Myrica cerifera*), and loblolly bay (*Gordonia lasianthus*). Herbaceous vegetation in this habitat includes cinnamon ferns (*Osmunda cinnamomea*) and netted chain fern (*Woodwardia areolata*). Communities in the Wet Prairie portion of OU 8 consist of sparse, dense ground cover of grasses and herbs. Dominant species include hatpins (*Eriocaulon decangulare*), panic grass (*Panicum* sp.), St. John's wort (*Hypericum fasciculatum*), and meadow beauty (*Rhexia virginica*), with some scattered wax myrtle (*Myrica cerifera*). The Baygall community, also a part of this area, is typically found in flat areas or on slopes where high lowland water tables help maintain soil moisture. Typical plants in this community include sweetbay (*Magnolia virginiana*), swamp bay (*Persea palustris*), red bay (*Persea borbonia*), loblolly bay (*Gordonia lasianthus*), gallberry (*Ilex glabra*), muscadine grape (*Vitis rotundifolia*), netted chain fern (*Woodwardia areolata*), and cinnamon fern (*Osmunda cinnamomea*).

The Palustrine Emergent Persistent area, which is mixed into the northeastern portion of the wetlands at OU 8, most closely approximates the FNAI Floodplain Marsh classification. It is dominated by emergent grasses, herbs, and shrubs. Typical species include sedges (*Carex* sp.), bulrush (*Scirpus* sp.), climbing hempweed (*Mikania scandens*), scarlet pimpernel (*Anagallis arvensis*), and dotted smartweed (*Polygonum punctatum*), along with scattered black willow (*Salix nigra*) and myrtle oak (*Quercus myrtifolia*).

Bay swamp wetlands are associated with Sal Taylor Creek to the east of the runways with additional acreage north of 103rd Street and Normandy Boulevard. Bay Swamp areas are located at the slower moving headwaters of the various creeks. Some bay swamps on the facility are isolated but are not found in OU 8.

Hardwood swamps are found in association with Rowell Creek and Yellow Water Creek. Dominant canopy species found in the hardwood swamps include tupelo (*Nyssa sylvatica* var *biflora*), red maple (*Acer rubrum*), and sweetgum (*Liquidambar styraciflua*). Other canopy species include bald cypress (*Taxodium distichum*), water oak (*Quercus nigra*), laurel oak (*Quercus lauifolia*), and Carolina willow (*Salix caroliniana*). Along the edges of the hardwood swamp, loblolly pine (*Pinus taeda*) and pond pine (*Pinus serotina*) can also be found. The subcanopy within the swamp is dominated by smaller tupelo, red maple, sweetgum, and wax myrtle (*Myrica cerifera*). The ground cover is dominated by cinnamon fern (*Osmunda cinnamomea*), shield fern (*Thelypteris kunthii*), and elderberry (*Samubucus canadensis*). The main stream channel is vegetated along the edge by such species as pickerelweed (*Ponteria* sp.), alligator weed (*Alternanthera philoxeroides*), spatterdock (*Nuphar luteum*), and lizard's tail (*Saururus cernuus*) (SOUTHNAVFACENGCOM, 1989). A series of drainage ditches is connected to the hardwood swamps. These drainage ditches often connect to a low cypress dome or bay swamp. The drainage ditches are vegetated mostly with cattail (*Typha latifolia*), pickerelweed, alligator weed, spatterdock, and lizard's tail (SOUTHNAVFACENGCOM, 1988).

Table 3-6
Wetland Classes of the Study Area[1]

Baseline Risk Assessment
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Wetland Class	Indicator Species (common name)
Palustrine Forested Broad-Leaved Deciduous	Red maple, sweet gum, swamp bay, sweet bay, wax myrtle, loblolly bay, and cinnamon fern.
Palustrine Scrub-Shrub Broad-Leaved Deciduous	Sweet bay, swamp bay, red bay, loblolly bay, wax myrtle, muscadine grape, gallberry, meadow beauty, and netted chain fern.
Palustrine Emergent Persistent	Black willow, myrtle oak, climbing hempweed, scarlet pimpernel, rushes, and dotted smartweed.

[1] Wetland classes indicated on Figure 3-10

Cypress domes are scattered across the base. These are generally isolated circular depressional wetlands found among pine trees. They are often dry for part of the year. Dominant canopy species include bald cypress (*Taxodium distchum*), tupelo (*Nyssa sylvatica* var. *biflora*), and either slash pine (*Pinus elliottii*) or loblolly pine (*Pinus taeda*). Other common trees include red maple and wax myrtle. The subcanopy is generally dominated by the same vegetation as the canopy. Ground cover species include cinnamon fern, Virginia chain fern (*Woodwardia virginica*), St. John's wort (*Hypericum fasciculatum*), and red root (*Lachnanthes caroliniana*) (SOUTHNAVFACENGCOM, 1989).

3.8.4 Rare, Endangered, and Threatened Species Rare, endangered, and threatened species identified as potentially residing on NAS Cecil Field are listed in Table 3-7 with corresponding State and Federal designations. The list is based on a review of available information including the IAS (Envirodyne Engineers, 1985), a rare and endangered plant survey report (Environmental Services and Permitting [ESP], 1990), and the Technical Memorandum for Supplemental Sampling at OUs 1, 2, and 7 (ABB-ES, 1992a).

Certain species that potentially reside on NAS Cecil Field are protected by Federal and/or State laws. Although no rare and endangered animal species are known to occur at OU 8, several records exist for occurrences near the site. The gopher tortoise (*Gopherus polyphemus)*, a State species of special concern (SSC) and a federal-candidate species, is a confirmed resident at NAS Cecil Field. This reptile has been observed by ABB-ES ecologists within 1,000 feet of Site 5, which is north of Site 3, suggesting this species may occur transiently in the study area. Further, a number of gopher tortoise burrows were observed on the NAS property, some in association with Sites 1 (approximately 2,500 feet south-southeast of OU 8) and 4, immediately north of the OU 8 study area (Envirodyne Engineers, 1985). Also, the Federal- and State-listed endangered species, the woodstork (*Mycteria americana*), and the American alligator (*Alligator mississippiensis*), a State-listed SSC, have been observed at Lake Fretwell, located to the east and northeast of OU 8. As discussed in the OU 2 RI report (ABB-ES, 1994c), Lake Fretwell is not being evaluated in this RI but will be considered in a future study. Sherman's fox squirrel (*Sciurus niger shermani*), a State-listed SSC and Federal-candidate species, may be a resident of the forested area north of Site 18. However, due to the disturbed nature of OU 8, it is unlikely that this fox squirrel occurs at the site.

One State-listed (threatened) plant species is known to occur at the OU 8 study area. The hooded pitcher plant (*Sarracenia minor*), was found at OU 8 near the helicopter crash site by an ABB-ES biologist. Two additional species, listed by FDA as commercially exploited (Wood, 1994) were observed at OU 8. The cinnamon fern (*Osmunda cinnamomea*) and the netted chain fern (*Woodwardia areolata*) were observed in the wetlands on the southeastern part of the site (CDM, 1994). In addition, the wetlands to the north of OU 8 contain another commercially exploited fern species (i.e., *O. regalis*) and the threatened grass pink (*Calopogon tuberosus*).

Table 3-7
Rare, Endangered and Threatened Flora and Fauna at or in the Vicinity of NAS Cecil Field

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Common Name	FGFWFC[1]	USFWS[2]	FDA[3]	Comments
Florida gopher frog (*Rana capito*)	SSC	C2		Possible Resident at NAS Cecil Field. (Envirodyne Engineers, 1985). Suitable habitat exists at Site 3.
American alligator (*Alligator mississippiensis*)	SSC	T(S/A)		Confirmed resident in Lake Fretwell at NAS Cecil Field (Envirodyne Engineers, 1985).
Eastern indigo snake (*Drymarchon corais couperi*)	T	T		Confirmed resident at NAS Cecil Field. (Envirodyne Engineers, 1985). Suitable habitat exists at Site 3.
Gopher tortoise (*Gopherus polyphemus*)	SSC	C2		Confirmed resident at NAS Cecil Field. (Envirodyne Engineers, 1985). Possible resident at Site 3.
Wood stork (*Mycteria americana*)	E	E		Confirmed migrant; observed feeding at Lake Fretwell (Cochran, 1994). Suitable habitat is present in shallow water areas at Site 3.
Southeastern kestrel (*Falco sparverius paulus*)	T	C2		Possible Migrant (Cochran, 1994)
Arctic Peregrine falcon (*Falco peregrinus tundrius*)	E	T		Probable Migrant (Cochran, 1994)
Bald eagle (*Haliaeetus leucocephalus*)	T	E		Confirmed Migrant (Envirodyne Engineers, 1985)
Sherman's fox squirrel (*Sciurus niger shermani*)	SSC	C2		Possible resident near Site 18 (ABB-ES 1995a). Unlikely to occur at Site 3.
Florida black bear (*Ursus americanus floridanus*)	T	C2		Evidence of black bears reported in outlying areas in 1982 (Envirodyne Engineers, 1985). Unlikely to occur at Site 3.
Florida mouse (*Peromyscus floridanus*)	SSC	C2		Known from Clay County, may range into habitats (sand pine scrub and longleaf pine-turkey oak communities) present at NAS Cecil. Not known to be a resident at NAS Cecil Field (Envirodyne Engineers, 1985).
Hooded pitcher plant (*Sarracenia minor*)			T	Found in wetlands at Site 3 (ABB-ES biologist).
Spoon-leaved sundew (*Drosera intermedia*)			T	Found at one location at Yellow Water Weapons area in drainage ditch (ESP, 1990).

See notes at end of table.

Table 3-7 (Continued)
Rare, Endangered and Threatened Flora and Fauna at or in the Vicinity of NAS Cecil Field

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Common Name	FGFWFC[1]	USFWS[2]	FDA[3]	Comments
Cinnamon fern (*Osmunda cinnamomea*)			CE	Observed at Site 3. (CDM, 1994).
Royal fern (*Osmunda regalis*)			CE	Confirmed at NAS Cecil Field. Possibly present at Site 3.
Bartram's ixia (*Salpingostylis coelestinum*)			E	Observed by Navy personnel in the southwest quadrant of NAS Cecil Field (Burst, 1994; Cochran, 1994). Possibly present at Site 3.
Variable-leaf crown beard (*Verbesina heterophylla*)		C2		Found at one location at NAS Cecil Field in sandhill habitat (ESP, 1990). Possibly present at Site 3.
Netted chain fern (*Woodwardia areolata*)			T	Found at Site 3.
Grass pink (*Calopogon tuberosus*)			T	Found at Site 17 by ABB-ES ecologist; possibly present at Site 3.

[1] Florida Game and Fresh Water Fish Commission (list published in Section 39-27.003-005, Florida Administrative Code) (Wood, 1994).
[2] United States Fish and Wildlife Service (list published in List of Endangered and Threatened Wildlife and Plants, 50 CFR 17.11-12) (Wood, 1994).
[3] Florida Department of Agriculture and Consumer Services (list is statutorily designated by the Preservation of Native Flora of Florida Act (581.185-187, Florida Statutes)) (Wood, 1994).

Notes: E = Endangered: any species which is in danger of extinction throughout all or a significant portion of its range.
T = Threatened: any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
T(S/A) = Threatened due to similarity of appearance.
SSC = Species of Special Concern.
C1 = A candidate for Federal listing for which there is enough substantial information on biological vulnerability and threats to justify listing.
C2 = A candidate for federal listing with some evidence of vulnerability, but for which not enough information exists to justify listing.
CE = Commercially Exploited.

4.0 NATURE AND EXTENT OF CONTAMINATION

The results of the field investigation concerning the nature and extent of contamination detected at OU 8, Site 3, have been assessed and the findings are presented in this chapter.

Four rounds of investigation have been completed during the evaluation of OU 8, starting with work by Envirodyne Engineers in 1985 (IAS) and ending with the ABB-ES investigation of 1993-94 (RI). Most of these investigations have included a field program that obtained physical and chemical data. The most recent investigation, completed in 1994 (Chapters 2.0 and 3.0), represents the most comprehensive set of physical and chemical data developed to date. For this reason, discussion of the nature and extent of contamination at OU 8 centers primarily on the data accumulated during this last investigation. Relevant data and findings from previous studies (including the 1991 to 1992 ABB-ES investigation [RI] and field screening data) will be discussed as appropriate. The complete analytical TCL and TAL data set generated for all media during the 1993 to 1994 investigation is presented in Appendix M. Chemical analyses were also completed on groundwater samples for water quality parameters such as hardness, alkalinity, total dissolved solids, etc. These results are presented in Appendix L. Tables and figures summarizing detection and distribution of characteristic contaminants are presented in this chapter. Chemical analytical data from previous investigations are presented in Appendix A and summarized in Chapter 1.0.

A separate investigation is being conducted under the Navy's Underground Storage Tank (UST) Program for petroleum contamination at the helicopter crash site. Petroleum contamination detected near the helicopter crash site, even if it is not associated with the OU 8 source area, is mentioned in this report. Any further delineation of petroleum contamination will be addressed by the UST program. Results of helicopter crash site investigations that have been completed to date are included in Appendix A.

The quality of the chemical analytical data collected during the investigation of OU 8 has been evaluated by assessing the precision, accuracy, representativeness, completeness, and comparability (PARCC) of the analytical data for each medium. PARCC reports summarize the quality control measures taken during the investigation and discuss the suitability of the data for use in this investigation. The PARCC summary reports for media sampled at OU 8 are presented in Appendix N. In general, the data complied with PARCC criteria and are considered acceptable for use in this RI and the associated BRA and FS.

Discussion of the nature and extent of contamination at OU 8 is structured according to the RI/FS guidance (USEPA, 1988). Sources of contamination are discussed first. Environmental media sampled during the investigation are then discussed in the following order: surface soil, subsurface soil, groundwater, surface water, and sediment. Within each of these media, analytical fractions are discussed in the following order: organics (VOCs, SVOCs, pesticides and PCBs) and inorganics. The regulatory and guidance criteria for chemicals in each medium are presented in Appendix O for reference.

In the case of duplicate samples, the average of the sample and the duplicate concentrations is used to be consistent with the procedure employed in the BRA. In accordance with that procedure, if either the sample or duplicate is reported

as not detected, half of the reported detection limit (RDL) value is used as the concentration for that sample or duplicate.

To assist in distinguishing inorganic contaminants from those that are present naturally, analytical results are screened by comparison to background criteria for each media sampled. These background criteria are twice the mean of the concentrations detected in the background samples for each medium. The background screening program is detailed in section 2.6 and the complete analytical data set from the background sampling program is presented in Appendix J.

Other analyses completed (water quality parameters, grain size analyses, etc.) are discussed as appropriate. The results of geotechnical testing are presented in Appendix E. Following the evaluation of each analytical fraction for a particular medium, a summary of relevant results and findings for the medium is presented.

4.1 **SOURCES**. At OU 8, the primary source of contamination is the liquid waste that was disposed of in a pit located immediately northeast of the intersection of Perimeter Road and the Lake Fretwell access road leading west, away from the dam at the south end of the Lake Fretwell (see Figure 1-3). Based on information in the IAS report, wastewater containing fuel, oil, sludge, solvent (MEK, Stoddard [petroleum distillates], trichloroethylene, PD-680, MIBK, toluene, naphtha, and xylene), paint, and paint thinners was deposited in the pit. Based on the historical information collected, generation of the waste liquids resulted from operations at the fuel farm, the Aircraft Intermediate Maintenance Department (AIMD), the squadrons, and public works.

The waste liquids disposed of in the pit drained directly to the underlying vadose and phreatic zone soil and groundwater. The periodic disposal of waste liquids in the pit would be expected to cause a temporary and localized groundwater mound which would tend to initially spread the contaminants radially. After discharge events, the mounding would subside, leaving some contaminants in the vadose soil (soil above the water table).

After the initial spreading of the contaminants caused by the mounding, the dissolved contaminants would migrate with the natural flow of groundwater. Contaminants remaining within the initial mound area (in soil both above and below the water table) could serve as a continuing source of groundwater contamination.

Another area unrelated to the waste disposal pit that may have resulted in a source of contamination is the helicopter crash site (see Figure 1-3). Although this area is located within the OU 8 study area, the resultant petroleum contamination from the crash is being addressed under the Navy's UST program. However, some solvent contamination was detected within the helicopter crash site during the soil screening program and because the presence of solvents could not be linked to the crash site, confirmatory samples were collected in conjunction with the RI. Detections of solvents 1,1-DCA, 1,1-DCE, 1,2-DCE, and TCE were observed in both soil and groundwater samples collected near and within the helicopter crash site. The source of the solvent contamination in the vadose zone soil at the crash site is believed to be the result of solvents that have volatilized from the shallow groundwater (depth to groundwater is estimated to be less than 2 feet). The source of groundwater contamination at the crash site

appears to be the former waste disposal pit area which is hydraulically upgradient and has very similar organic solvent contaminants.

To document the nature and extent of contamination resulting from wastes deposited at the OU 8 disposal pit, samples for laboratory analyses were collected from surface soil, subsurface soil, groundwater, surface water and sediment. The results of these analyses are discussed below.

4.2 **ANALYTICAL RESULTS**. The chemical analysis results of environmental samples from OU 8 are discussed in this section. Results of the biological toxicity testing of soil contamination are discussed in the ecological portion of the risk assessment and are summarized in Chapter 6.0, Summary of Baseline Risk Assessment. The results of inorganic analyses are compared to background screening concentrations from site-specific media (e.g., upgradient groundwater) and installation-wide media (surface and subsurface soil).

4.2.1 **Surface Soil** Surface soil samples were collected at OU 8 during the 1991 investigation and the screening and the confirmatory sampling programs conducted during the 1993 to 1994 investigation. The results of the 1991 surface soil investigation are presented in Chapter 1.0 and will not be discussed in this chapter because they were collected from the 0 to 2 foot bls interval, which does not meet the current risk assessment surface soil sampling requirement of collection from 0 to 1 foot bls. However, these samples are useful for site evaluation.

Results of the field screening surface soil samples will be briefly discussed, followed by a more detailed discussion of the 24 confirmatory sample results.

4.2.1.1 Organic Compounds in Surface Soil

Field Screening Sample Results. The results of the surface soil screening identified three distinct areas of contamination at OU 8. The areas included the historical disposal pit area, the area along the north side of the Lake Fretwell access road (vicinity of the roadside drainage ditch) between the pit area and Lake Fretwell, and the area near the helicopter crash site. Figures presenting the results of the surface soil screening program can be found in Appendix B.

Evaluation of the screening program results indicated the presence of TRPH; benzene, toluene, ethylbenzene, and xylenes (BTEX); and solvents in the surface soil at OU 8. TRPH was the only detection in surface soil around the historical pit area and had a maximum detection of 770 mg/kg at location 3-13. TRPH was also detected north of the access road at a maximum concentration of 64 mg/kg. The solvents TCE, DCA, and DCE were the most common detections in surface soil screening samples near the helicopter crash site area. The maximum detection of TCE was 19 μg/kg (sample locations 3-114 and 3-118) whereas 1,1-DCA was detected at 10 μg/kg (3-117) and cis-1,2-DCE was detected at 13 μg/kg (sample location 3-118).

Confirmatory Sample Results. The confirmatory analytical results for surface soil are summarized in Table 4-1, and shown on Figures 4-1. In general, analysis of confirmatory samples indicated contaminants were present only in the disposal pit area and drainage swale adjacent to the access road and at the helicopter crash site.

Table 4-1
Surface Soil Organics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations(*)[2]	Mean of Detected Concentrations[3]	Florida Cleanup Goals[4]
Volatiles (µg/kg)					
1,1-Dichloroethene	1/24	6 - 43.5	3 J	3	NP
1,2-Dichloroethene (total)	1/24	6 - 43.5	4 J	4	NP
2-Butanone	2/24	7 - 86	2 J - 3 J	2.5	6,770,000
Acetone	1/24	12 - 86	4 J	4	2,290,000
Methylene chloride	2/24	6 - 43.5	3 J - 4 J	3.5	20,700
Toluene	1/24	6 - 43.5	3 J	3	NP
Xylenes (total)	12/24	6 - 43.5	3 J - 8*	4	37,900,000
Semivolatiles (µg/kg)					
2-Methylphenol	1/24	350 - 565	24 J	24	NP
Acenaphthylene	1/24	350 - 565	170 J	170	ND
Anthracene	1/24	350 - 565	59 J	59	18,300,000
Benzo (a) anthracene	2/24	350 - 565	44 J - 620	332	1,480
Benzo (a) pyrene	4/24	350 - 565	23 J - 440	174	148
Benzo (b) fluoranthene	4/24	350 - 565	30 J - 870	294	1,480
Benzo (g,h,i) perylene	4/24	350 - 565	28 J - 270	116	ND
Benzo (k) fluoranthene	2/24	350 - 565	85 J - 280	183	1,470
Butylbenzylphthalate	1/24	350 - 565	48 J	48	15,300,000
Carbazole	1/24	350 - 565	24 J	24	58,100
Chrysene	4/24	350 - 565	22 J - 700	225	14,800
Di-n-butylphthalate	1/24	350 - 565	1,400	1,400	NP
Dibenz (a,h) anthracene	2/24	350 - 565	32 J - 100 J	66	148
Fluoranthene	4/24	350 - 565	29 J - 720	228	2,990,000
Indeno (1,2,3-cd) pyrene	3/24	350 - 565	22 J - 330	157	1,480
Phenanthrene	1/24	350 - 565	44 J	44	ND
Phenol	1/24	350 - 565	33* J	33	NP
Pyrene	3/24	350 - 565	23 J - 890	323	2,240,000
bis(2-Ethylhexyl) phthalate	2/24	350 - 565	180 J - 290	235	NP
Pesticides/PCBs (µg/kg)					
4,4-DDT	8/24	3.9 - 20	1.3 J - 10	5	3,180
Dieldrin	1/24	2.1 - 20	1.6 J	1.6	71.2
Endosulfan II	4/24	0.2 - 20	0.17 J - 1.55*	0.7	NP

See notes on following page.

Table 4-1 (Continued)
Surface Soil Organics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

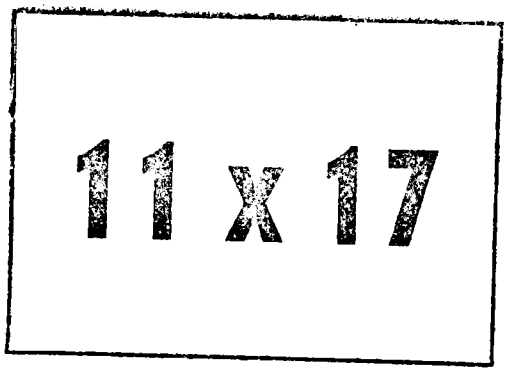
Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations(*)[2]	Florida Cleanup Goals[4]	Mean of Detected Concentrations[3]
Endrin ketone	1/24	3.85 - 20	4	NP	4
alpha-BHC	1/24	1.95 - 10	0.89*	NP	0.89
alpha-Chlordane	7/24	1.95 - 10	0.099 - 0.81*	869	0.45
gamma-Chlordane	4/24	1.95 - 10	0.119* - 0.8	869	0.36
Aroclor-1254	1/24	38.5 - 300	15*	NP	15*
Total Recoverable Petroleum Hydrocarbons (mg/kg)					
	7/24	12 - 29	29 - 370	NP	145

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
[2] Value indicated by asterisk is the average of a sample and its duplicate.
[3] The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples with a "U" or "UJ" validation qualifier for that analyte.
[4] Florida Department of Environmental Protection (FDEP) memorandum dated July 5, 1994. Values presented are the lesser of the cleanup goals based on the hazard index for the child resident or the cancer risk for the aggregate resident.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: CF3SS1, CF3SS2, CF2SS3, CF3SS4, CF3SS5, CF3SS6. CF3SS7, CF3SS8, CF3SS9, CF3SS10, CF3SS11, CF3SS12, CF3SS13, CF3SS14, CF3SS15, CF3SS16, CF3SS17, CF3SS18, CF3SS19, CF3SS20, CF3SS21, CF3SS22, CF3SS23, and CF3SS24
Duplicate samples include: CF3SS10D, CF3SS20D, and CF3SS24D
µg/kg = micrograms per kilograms dry weight.
J = indicates chemical identified by chemist but quantity was estimated.
= these chemicals represent human health chemicals of potential concern (HHCPCs).
NP = analayte is not presented in FDEP guidance.
ND = analyte is presented in FDEP guidance but no data is provided.

Figure 4-1 Confirmatory Surface Soil Organics



VOCs in Surface Soil. Seven VOCs were detected in surface soil samples collected at OU 8. All detections of VOCs were below 10 µg/kg and only one VOC, xylene, was detected in more than 2 of the 24 samples.

The highest detection of xylene was 8 µg/kg (average of the sample and its duplicate) in sample CEF-3-SS-10, south of Lake Fretwell access road, 500 to 600 feet east of the disposal pit. Xylene was also detected near the disposal pit area, or topographically downgradient, indicating xylene may be present as a result of fuel deposited in the disposal pit or spilled on the access road.

1,1-DCE (3 J µg/kg at CEF-3-SS-12) and 1,2-DCE (4 J µg/kg at CEF-3-SS-13) were detected in only 1 of the 24 samples. The detections are near the helicopter crash site and are interpreted to be the result of the volatilization from shallow contaminated groundwater that originated in the source area. Both 1,1-DCE and 1,2-DCE were detected in nearby monitoring well CEF-3-28S at concentrations that are consistent with volatilization from groundwater and adsorption and detection in overlying soil.

SVOCs in Surface Soil. A total of 19 SVOCs were detected in the surface soil from the analysis of 24 samples. Of the 19 SVOCs detected, the most frequent compounds detected were benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, and fluoranthene. These compounds are common byproducts of the combustion of petroleum fuels and are, therefore, consistent with the waste oil deposited in the disposal pit and burned when the liquid level in the pit was high. Although these SVOCs were most frequently detected, they were only detected in 4 of the 24 surface soil samples.

All of the SVOC detections (except CF-3-SS-24) in surface soil were from samples collected near the disposal pit area. The highest total SVOC concentration was 5,520 µg/kg at CF-3-SS-2, which is located near the northwest side of the former disposal pit. The presence of SVOCs in surface soil near the source area is most likely a result of the former OU 8 waste disposal operations.

TRPH in Surface Soil. TRPH was detected in 6 of the 24 surface soil samples; in 3 samples (CF-3-SS-7, CF-3-SS-15, and CF-3-SS-20) near the disposal pit area and in 3 samples (CF-3-SS-11, CF-3-SS-12 and CF-3-SS-24) near the helicopter crash site. The highest TRPH concentration detected in surface soil was 370 mg/kg in sample CF-3-SS-12 near the helicopter crash site. The three detections near the disposal pit area were along the Lake Fretwell access road. Five of the six samples exceeded the FDEP guidance value of 50 mg/kg for thermally treated petroleum contaminated soil. The distribution of TRPH in surface and subsurface soil is presented in Subsection 4.2.2.1 (Organic Compounds in Subsurface Soil).

The presence of TRPH in the disposal pit area is most likely the result of petroleum waste disposal in the pit or residue from possible historic use of oil to control road dust. The TRPH detected at the helicopter crash site is interpreted to be linked to the helicopter crash rather than the result of transport by the groundwater (as suspected for the chlorinated solvents) or by surface water runoff.

Pesticides and PCBs in Surface Soil. Seven pesticides and one PCB were detected at OU 8. Sporadic detections of pesticides including 4,4-DDT, dieldrin, endosulfan II, endrin ketone, alpha-BHC, alpha-chlordane, and gamma-chlordane were observed in the surface soil samples at OU 8. Based on the observed concentra-

tions, these pesticide detections are most likely the result of previous basewide use of pesticides and not the result of waste disposal operations at OU 8. The only PCB detection was Aroclor 1254.

The most frequently detected pesticides were 4,4-DDT and alpha-chlordane. 4,4-DDT was detected in 8 of 24 samples at concentrations ranging from 1.3 to 10 µg/kg. The highest concentration of 4,4-DDT was at sample location CF-3-SS-16, which is located along the western side of the former pit. Alpha-chlordane was detected in seven samples, with a maximum concentration of 0.81 J µg/kg (the average of sample CF-3-SS-24 and its duplicate) in the helicopter crash area.

Aroclor 1254 was detected at 15 J µg/kg (average of sample and duplicate) in sample CF-3-SS-10. This sample is located along the south side of the access road approximately 400 feet east of the disposal pit. Because no other PCB detections were observed in surface soil samples and this sample location is several hundred feet from the pit (PCBs are relatively immobile in soil), it does not appear this detection of Aroclor 1254 can be related to the source area. It is most likely the result of the former practice of spraying PCB containing oil on the roads for dust control.

4.2.1.2 **Inorganics in Surface Soil** The confirmatory inorganic chemical analysis results for surface soil are summarized in Table 4-2, and shown on Figure 4-2. The background screening concentrations for inorganics in surface soil are also presented in Table 4-2.

Confirmatory Sample Results. A total of 19 TAL inorganic analytes were detected in the surface soil at OU 8. Due to the large number of analytes detected and the widespread distribution, only the inorganic analytes that were chemicals of potential concern (CPC) in the Baseline Risk Assessment will be discussed in the RI report. However, results of all inorganic analytes detected in surface soil are summarized in Table 4-2.

The CPCs identified for OU 8 surface soil in the baseline risk assessment included antimony, barium, cadmium, copper, lead, manganese, mercury, silver, and zinc. Details and rationale for eliminating inorganic compounds as CPCs is presented in the OU 8 Baseline Risk Assessment and are summarized in Chapter 6.0. The distribution and concentration of inorganic CPCs are shown in Figure 4-2. A brief summary of the above inorganic CPC detections is presented in the following paragraphs.

Antimony was detected in only one sample, CF3SS14, at an estimated concentration of 2.1 J mg/kg, which is well below the quantitative reporting limit of 12 mg/kg. This sample was collected in a low area adjacent to the intersection of Perimeter Road and the Lake Fretwell access road near the disposal pit. Antimony was not detected in the disposal pit or in the background data set.

Barium was detected in all but one surface soil sample with the highest detection of 27.6 mg/kg at CF3SS19 which is located within the former disposal pit. The background screening concentration for barium is 12 mg/kg, and the maximum background concentration was 16.4 mg/kg. The only sample results that exceeded the background screening concentrations were at the disposal pit (CF3SS19) and the drainage ditch along the access road (CF3SS9).

Table 4-2
Surface Soil Inorganics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations (*)[2]	Mean of Detected Concentrations[3]	Screening Background Concentration[4]	Maximum Background Concentration	Florida Cleanup Goals[5]
Inorganics (mg/kg)							
Aluminum	24/24	40 - 40	527 - 2,010	1,310	10,100	24,000	ND
Antimony	1/24	12 - 12	2.1 J	2.1	ND	ND	NP
Barium	23/24	40 - 40	1.8 J - 27.6	6	12	16.4	NP
Cadmium	5/24	1 - 1	0.24 J - 2.6	1.1	ND	ND	37.5
Calcium	23/24	1,000 - 1,000	513 J - 66,100	10,800	458	269	NP
Chromium	12/24	2 - 2	0.4 J - 6.2	1.8	25.8	24.9	201
Copper	22/24	5 - 5	0.48 J - 42.4	5.6	ND	ND	2,880
Iron	24/24	20 - 20	185 - 2,100	587	2,790	7,140	ND
Lead	24/24	0.6 - 0.6	2.2 - 258	16	9.4	10.5	ND
Magnesium	23/24	1,000 - 1,000	58 - 1,620*	230	230	376	NP
Manganese	23/24	3 - 3	2.6 J - 41.5	10.7	11	10.9	5,710
Mercury	3/24	0.1 - 0.1	0.16 - 0.32	0.26	ND	ND	NP
Nickel	9/24	8 - 8	0.57 J - 2.4 J	1.1	7.2	5.7	1,510
Potassium	20/24	1,000 - 1,000	24.1 J - 299*	54	310	236	NP
Selenium	1/24	1 - 1	0.75*	0.75	ND	ND	NP
Silver	5/24	2 - 2	0.33 J - 4.4	1.7	ND	ND	NP
Sodium	9/24	1,000 - 1,000	122 - 241	171	ND	ND	NP
Vanadium	24/24	10 - 10	0.79 J - 4.6 J	1.9	13.2	30.7	501
Zinc	6/24	4 - 4	13.5 - 93.9	35.4	ND	ND	23,300

See notes on following page.

Table 4-2 (Continued)
Surface Soil Inorganics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
[2] Value indicated by asterisk is the average of a sample and its duplicate.
[3] The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples with a "U" or "UJ" validation qualifier for that analyte.
[4] The background screening value is twice the average of detected concentrations for inorganic analytes in background samples.
[5] Florida Department of Environmental Protection (FDEP) memorandum dated July 5, 1994. Values presented are the lesser of the cleanup goals based on the hazard index for the child resident or the cancer risk for the aggregate resident.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: CF3SS1, CF3SS2, CF2SS3, CF3SS4, CF3SS5, CF3SS6. CF3SS7, CF3SS8, CF3SS9, CF3SS10, CF3SS11, CF3SS12, CF3SS13, CF3SS14, CF3SS15, CF3SS16, CF3SS17, CF3SS18, CF3SS19, CF3SS20, CF3SS21, CF3SS22, CF3SS23, and CF3SS24
Duplicate samples include: CF3SS10D, CF3SS20D, and CF3SS24D
NP = analayte is not presented in FDEP guidance.
ND = analyte is presented in FDEP guidance but no data is provided.
mg/kg = milligrams per kilograms dry weight.
J = indicates chemical identified by chemist but quantity was estimated.
▒▒ = these chemicals represent human health chemicals of potential concern (HHCPCs)

Figure 4-2 Confirmatory Surface Soil Inorganics

Cadmium was not detected in the background soil samples but was detected in 5 of the 24 samples collected at OU 8. Four of the detections were from samples collected within or near the former pit with the highest concentration being 2.6 mg/kg from sample location CF3SS19. The fifth sample was collected topographically downgradient on the north side of the access road at CF3SS9.

Copper was also not detected in the background samples but was detected in 22 of the 24 soil samples at concentrations ranging from 0.48 mg/kg to 42.4 mg/kg. The highest detection of copper (again from CF3SS19) was located within the former pit and the next highest detection (30.7 mg/kg) was also at CF3SS9, topographically downgradient of the former pit.

Lead was detected in all surface soil samples at concentrations ranging from 2.2 mg/kg to 258 mg/kg. The background screening concentration for lead is 9.4 mg/kg and the maximum background concentration was 10.5 mg/kg. The highest concentration of lead was detected in sample CF3SS14 which is located on the southwest side of the disposal pit near Perimeter Road. Only three of the other 23 samples, CF3SS15 (16 mg/kg), CF3SS18 (15.7 mg/kg) and CF3SS19 (12.5 mg/kg), located within the disposal pit, had lead concentrations above the background screening concentration of 9.4 mg/kg.

All concentrations of manganese that exceeded the background screening concentration of 11 mg/kg were detected in samples collected from within or near the former disposal pit. The highest concentration of manganese was 41.5 mg/kg in sample CF3SS18 which is located on the northeast side of the pit boundary. Of the 23 detections of manganese, 6 exceeded the background screening concentration of 11 mg/kg. Five of the six were within or near the disposal pit and the sixth was immediately south of the disposal pit and the access road.

Mercury, silver, and zinc were not detected in any of the background samples but were detected at a low frequency at OU 8. Of these 3 inorganics, zinc was the most common detection (6 detections in 24 samples, with 5 in the disposal pit and 1 at CF3SS9) followed by silver (5 detections in 24 samples, with 4 in the pit and 1 at CF3SS9) and mercury (3 detections in 24 samples, with 2 in the pit and 1 at CF3SS9).

Overall, the inorganic CPCs appear to be most frequently detected within or near the former disposal pit with the highest concentrations often coming from soil samples collected at locations CF3SS14, CF3SS18, and CF3SS19. Surface soil samples collected to the east of the pit area along the access road and near the helicopter crash site typically had inorganic concentrations near or below the background screening concentrations and also had fewer total inorganic CPCs detected. Inorganic CPCs were also detected at CF3SS9 located on the north side of the access road, and topographically 400 to 500 feet downgradient of the disposal pit.

4.2.1.3 **Summary of Analytical Results for Surface Soil** The results of the confirmatory surface soil sampling program indicates the presence of VOCs, SVOCs, pesticides, PCBs, and inorganics.

The most frequent VOC detection was xylene (12 of 24 samples) at concentrations ranging from 3 to 8 μg/kg. All other VOCs had a frequency of detection of 2 out of 24 samples or less and at concentrations below 5 μg/kg.

Several SVOCs were detected in surface soil, although no single SVOC was detected in more than 4 of the 24 samples collected. Many of the detected SVOCs are commonly found in fuel and waste oil, of which both were reportedly disposed of at OU 8. Based on the historical operations and the presence of SVOCs in surface soil primarily near or within the pit area, it appears the source of the SVOCs is the former OU 8 waste disposal operation.

Few pesticides and one PCB were detected in surface soil. The detections cannot be linked to the disposal operations at OU 8 and are most likely the result of former basewide pesticide application and use of oil containing PCBs for dust control along unpaved (dirt) roads.

Nine inorganics were identified as CPCs by the risk assessment. All of these inorganics exceeded the background screening concentrations in at least one sample. Antimony, cadmium, copper, mercury, selenium, silver, sodium, and zinc were detected in OU 8 surface soil but were not detected in any background soil samples. The inorganic CPCs appear to be most frequently detected (and with the highest concentrations) within or near the former disposal pit. One surface soil sample (CF3SS9), collected 400 to 500 feet to the east of the pit area along the north side of the Lake Fretwell access road, also had CPCs above the background screening level. The helicopter crash site typically had inorganic concentrations near or below the background screening concentrations and also had fewer total inorganic CPCs detected.

4.2.2 **Subsurface Soil** Subsurface soil samples were collected during the 1991 investigation and both screening and confirmatory sampling programs were conducted during the 1993 to 1994 investigation. The results of the 1991 subsurface soil investigation will be used in conjunction with the 1994 data to provide a more complete picture of subsurface soil conditions. The 1991 samples were collected to 4 feet bls and due to a higher water table the 1994 samples were collected to only 3 feet bls. The results of the current investigation screening program were used to approximate the extent of subsurface soil contamination for the selection of confirmatory samples. Results of the subsurface soil screening program are presented in Appendix D.

A total of 16 subsurface soil samples were collected from 8 soil borings during the 1991 investigation. Two samples were collected from each boring, the first from 0 to 2 feet bls and the second from 2 to 4 feet bls.

The confirmatory subsurface soil sample locations were selected based on the results of the screening program. The 21 confirmatory subsurface soil sample locations were selected jointly between representatives from the USEPA, FDEP, and the Navy during a meeting on November 9, 1994.

4.2.2.1 Organic Compounds in Subsurface Soil

Field Screening Sample Results. An extensive subsurface soil screening program was conducted during the 1993 to 1994 field program. The results of the subsurface soil screening program identified two areas of subsurface soil contamination: the historical pit area, and the helicopter crash site area. These two areas were also areas that were identified to have surface soil contamination present. The results of the subsurface screening program are presented in Appendix D.

Subsurface soil detections primarily consisted of solvents. The solvent with the highest concentration in the historical pit area was 1,2-dichlorobenzene (1,2-DCB) at 130 µg/kg (location 3-5 from 8 to 10 feet bls). 1,2-DCB also had the highest detected concentration (11 µg/kg at location 3-40 from 6 to 8 feet bls) at the helicopter crash site area.

1991 and 1994 Subsurface Soil Sample Results. By combining the 1991 and 1994 data sets, a data set of 37 subsurface soil samples was created for this assessment. The 1994 confirmatory organic analytical data set for subsurface soil is found in Appendix M and the 1991 data in Appendix A. Both sets of data are summarized in Table 4-3 and the distribution of the organic detections for both data sets is presented in Figure 4-3.

VOCs in Subsurface Soil. Eleven VOCs were detected in the subsurface soil at OU 8. The detections included the solvents 1,1 DCA, 1,1 DCE, 1,2 DCE, and TCE; petroleum related compounds ethylbenzene, toluene, and xylene; chloroform and carbon disulfide; and compounds that are often laboratory artifacts including 2-butanone, and methylene chloride.

The most frequently detected VOCs were toluene and xylene. These two VOCs, both common components in fuel, were generally detected from within and around the pit area. The highest detection of toluene was 190 µg/kg and xylene was 21 µg/kg.

The chlorinated solvent detections were primarily in the samples collected near the helicopter crash site with only one detection (TCE at 21 J µg/kg in CF-3-BOR-3 from 2 to 4 feet bls) near the pit area. The detection of solvents near the helicopter crash site is believed to be the result of these compounds volatilizing from groundwater, which typically ranges from 1 to 3 feet bls.

SVOCs in Subsurface Soil. Sixteen SVOCs were detected in subsurface soil samples. Of the SVOCs detected, only 1,4 dichlorobenzene and bis (2-ethylhexyl) phthalate were detected in more than two samples. Since several SVOCs were detected sporadically at OU 8, the discussion of the SVOC results will be presented as total SVOCs.

The highest concentration of total SVOCs (7,280 µg/kg) was detected in soil boring CEF-3-BOR-6 at a depth of 2 to 4 feet bls and is located within the former disposal pit. The bulk of total SVOCs at this location (6,800 µg/kg) was from bis(2-ethylhexyl)phthalate (BEP). The next three highest detections of total SVOCs were at CF-3-BOR-8 (3,400 µg/kg from 2 to 4 feet bls), CF-3-SB-6 (3,000 µg/kg from 1 to 3 feet bls), and CF-3-BOR-4 (1,400 J µg/kg from 2 to 4 feet bls). It should be noted that the only SVOC that contributes to these three total SVOC detections is BEP. Although BEP is a common laboratory contaminant, it was found in the 1991 and 1994 samples and in the presence of other contaminants which are considered to be waste related. Based on the disposal operations at OU 8, it is not apparent what may be the source of BEP. The remaining detections of total SVOCs within the disposal pit area were all less than 1,000 µg/kg.

All concentrations of total SVOCs in samples collected from the helicopter crash site were 38 µg/kg or less and are presented on Figure 4-3.

TRPH in Subsurface Soil. TRPH was detected in 20 of the 37 subsurface soil samples. The maximum concentration (10,400 mg/kg at 2 to 4 feet bls) was in soil boring CEF-3-BOR-7 which is located within the disposal pit. The distribution

Table 4-3
Subsurface Soil Organics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations(*)[2]	Mean of Detected Concentrations[3]	FDEP Cleanup Goals Based on Leachability[4]
Volatiles (µg/kg)					
1,1-Dichloroethane	1/37	5 - 760	3 J	3	NP
1,1-Dichloroethene	3/37	5 - 760	18 - 23	20	NP
1,2-Dichloroethene (total)	3/37	5 - 760	12 - 18	15	NP
2-Butanone	4/37	5 - 1,500	3 J - 16	8	878
Carbon disulfide	4/37	5 - 760	1 J - 2	2	NP
Chloroform	2/37	5 - 760	550 - 560	555	NP
Ethylbenzene	2/37	5 - 760	3 J - 3.5*	3.3	72.7
Methylene chloride	3/37	5 - 760	4 J - 5	5	1.13
Toluene	8/37	5 - 760	1 J - 190	30	NP
Trichloroethene	5/37	5 - 760	5 - 270	80	1.46
Xylenes (total)	9/37	5 - 760	2 J - 21	6	14.1
Semivolatiles (µg/kg)					
1,4-Dichlorobenzene	3/37	330 - 3,300	26 J - 30 J	27	NP
2-Nitroaniline	1/37	970 - 16,000	26 J	26	NP
3-Nitroaniline	1/37	970 - 16,000	82 J	82	NP
4-Nitroaniline	1/37	970 - 16,000	40 J	40	NP
4-Nitrophenol	1/37	970 - 16,000	58 J	58	NP
Benzo (a) anthracene	1/37	330 - 3,300	23 J	23	11,000
Benzo (a) pyrene	1/37	330 - 3,300	55 J	55	2,200
Benzo (b) fluoranthene	2/37	330 - 3,300	32 J - 88 J	60	4,400
Benzo (g,h,i) perylene	1/37	330 - 3,300	87 J	87	32,000
Benzo (k) fluoranthene	1/37	330 - 3,300	79 J	79	4,400
Chrysene	1/37	330 - 3,300	31 J	31	2,000
Di-n-butylphthalate	2/37	330 - 3,300	760 - 800	780	NP
Fluoranthene	2/37	330 - 3,300	30 J - 480	255	21,300
Indeno (1,2,3-cd) pyrene	1/37	330 - 3,300	59 J	59	24,000
Pyrene	1/37	330 - 3,300	42 J	42	16,000
bis(2-Ethylhexyl) phthalate	15/37	330 - 3,900	38 J - 6,800	1,110	NP
Pesticides/PCBs (µg/kg)					
4,4-DDE	2/37	4 - 38	0.78 J - 1.4 J	1.1	880
Endosulfan II	2/37	0.2 - 38	0.13 J - 0.41	0.27	NP
Endrin	1/37	4 - 38	1.6* J	1.6	7.19
alpha-BHC	1/37	2.1 - 19	39	39	NP
alpha-Chlordane	1/21	2 - 2.85	0.41 J	0.41	560
delta-BHC	1/37	2.1 - 19	1.2 J	1.2	NP
gamma-BHC (Lindane)	1/37	2.1 - 19	24	24	NP
gamma-Chlordane	1/37	2 - 190	0.47 J	0.47	560

See notes at end of table.

Table 4-3 (Continued)
Subsurface Soil Organics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

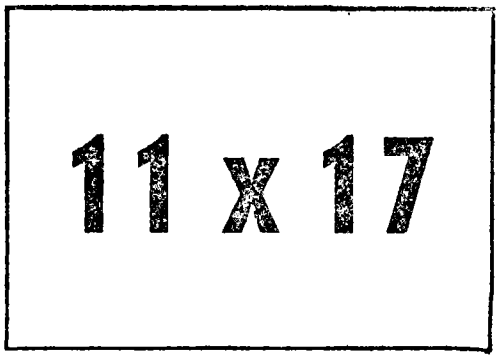
Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations(*)[2]	Mean of Detected Concentrations[3]	FDEP Cleanup Goals Based on Leachability[4]
Total Recoverable Petroleum Hydrocarbons (mg/kg)					
	7/21	12 - 130	20 - 1,600	344	NP

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
[2] Value indicated by asterisk is the average of a sample and its duplicate.
[3] The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples with a "U" or "UJ" validation qualifier for that analyte.
[4] Florida Department of Environmental Protection (FDEP) memorandum dated July 5, 1994. Values presented are the lesser of the cleanup goals based on leachability.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: BOR3-1-1, BOR3-1-2, BOR3-2-1, BOR3-2-2, BOR3-3-1, BOR3-3-2, BOR3-4-1, BOR3-4-2, BOR3-5-1, BOR3-5-2, BOR3-6-1, BOR3-6-2, BOR3-7-1, BOR3-7-2, BOR3-8-1, BOR3-8-2, CF3SB1, CF3SB2, CF3SB3, CF3SB4, CF3SB5, CF3SB6, CF3SB7, CF3SB8, CF3SB9, CF3SB10, CF3SB11, CF3SB12, CF3SB13, CF3SB25, CF3SB26, CF3SB27, CF3SB28, CF3SB29, CF3SB30, CF3SB31, and CF3SB32
Duplicate samples include: BOR3-6-1D, CF3SB10D, CF3SB27D, and CF3SB32D
NP = analayte is not presented in FDEP guidance.
ND = analyte is presented in FDEP guidance but no data is provided.
μg/kg = micrograms per kilograms dry weight.
J = indicates chemical identified by chemist but quantity was estimated.
Total Recoverable Petroleum Hydrocarbons (mg/kg) = these chemicals represent human health chemicals of potential concern (HHCPCs).

Figure 4-3 Confirmatory Subsurface Soil Organics



of TRPH in soil is presented in Figure 4-4. Since samples were collected from overlapping intervals (i.e., 1 to 3 feet bls and 2 to 4 feet bls) and the current water table is approximately 3 feet bls, all detections of TRPH in soil are presented in Figure 4-3. Surface soil samples from the 1994 investigation and selected surface soil screening samples were also used when necessary to define the distribution of TRPH in soil. If two TRPH values were present for the same location, the higher of the two values was used when contouring the TRPH concentrations.

The FDEP guidance value of 50 mg/kg for thermally treated petroleum-contaminated soil was exceeded in 13 of the 20 samples that detected TRPH. The majority of the TRPH detections greater than 50 mg/kg were from samples collected from within the pit boundary. TRPH was also detected in boring CF-3-SB-30 (1 to 3 feet bls) at the helicopter crash site, with a concentration of 30 mg/kg.

Pesticides and PCBs in Subsurface Soil. Few pesticides and no PCBs were detected in subsurface soil at OU 8. Sporadic detection of pesticides, including 4,4-DDE, endosulfan II, endrin, alpha-chlordane, gamma-chloradane, alpha-BHC, delta-BHC, and gamma-BHC were observed in subsurface soil samples at OU 8. The only pesticides that were detected in more than one of the 37 subsurface soil samples were 4,4 DDE and endosulfan II. 4,4 DDE was detected in 2 of 37 samples at a maximum concentration of 1.4 J μg/kg in boring CF-3-SB-11 from 1 to 3 feet bls. Endosulfan II was also detected in only 2 of 37 samples with a maximum concentration of 0.41 J μg/kg at a depth of 1 to 3 feet bls in boring CF-3-SB-2. Due to the low frequency of detection and sporadic distribution, these pesticide detections are most likely the result of previous basewide use of pesticides and not the result of waste disposal operations at OU 8.

4.2.2.2 **Inorganic Analytes in Subsurface Soil** Confirmatory Sample Results. The confirmatory inorganic chemical analysis results for subsurface soil are summarized in Table 4-4, and shown on Figure 4-5. The background screening concentrations for inorganics in subsurface soil are also presented in Table 4-4.

Twenty-two TAL inorganic analytes were detected in the subsurface soil at OU 8. Due to the natural occurrence and widespread distribution of these inorganics, only those identified as CPCs in the human health risk assessment will be discussed in this section.

The CPCs identified for OU 8 subsurface soil in the human health risk assessment included beryllium and manganese. Although only two CPCs were identified in the baseline risk assessment, other inorganics exceeded the background screening concentrations for OU 8. Inorganic analytes that exceeded the background subsurface soil concentration but were not CPCs included barium, calcium, chromium, copper, magnesium and nickel. Antimony, cadmium, cyanide, selenium, silver, and zinc were not detected in the subsurface soil background set but were detected in at least one sample collected from OU 8. The distribution and concentration of inorganic CPCs, beryllium and manganese, are shown in Figure 4-5. A brief summary of the inorganic CPC detections is presented in the following paragraphs.

Beryllium was detected in 3 of the 37 subsurface soil samples collected at OU 8. All three beryllium detections were from samples collected from within the pit boundary during the 1991 investigation. The beryllium concentrations ranged from

Figure 4-4 Total Recoverable Petroleum Hydrocarbons in Soil

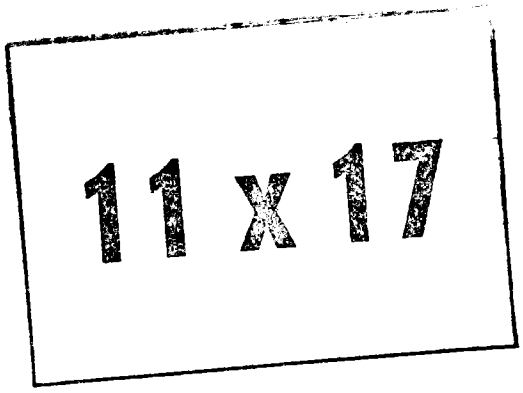


Table 4-4
Subsurface Soil Inorganics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations (*)[2]	Mean of Detected Concentrations[3]	Screening Background Concentration[4]	Maximum Background Concentration	FDEP Cleanup Goals Based on Leachability[5]
Inorganics (mg/kg)							
Aluminum	37/37	40 - 40	465 - 3,100	1,190	11,200	15,600	ND
Antimony	2/37	12 - 12	0.99 J - 2.5 J	1.7	ND	ND	NP
Arsenic	13/37	2 - 20	0.094 J - 1.1 J	0.2	1.6	0.98	ND
Barium	30/37	40 - 40	0.47 J - 32.5 J	3.7	15.4	12.2	NP
Beryllium	3/37	1 - 1	0.11 J - 0.32 J	0.19	ND	ND	NP
Cadmium	4/37	1 - 1	0.33 J - 2.6	1.1	ND	ND	ND
Calcium	32/37	1,000 - 1,000	74 J - 235,000	8,550	320	277	NP
Chromium	20/37	2 - 2	0.81* J - 28.1	3.6	15	17.4	ND
Copper	20/37	5 - 5	0.5 J - 19.4	2.7	1.2	0.58	ND
Cyanide	1/37	0.5 - 2	1.3	1.3	ND	ND	NP
Iron	37/37	20 - 20	75.6 - 1,050	313	2,840	5,660	ND
Lead	29/37	0.6 - 1	0.8 - 7.4	2.5	13.2	18.8	ND
Magnesium	33/37	1,000 - 1,000	16.9 J - 1,620	140	268	256	NP
Manganese	32/37	3 - 3	1 J - 66.3	7	7.8	4.5	ND
Mercury	9/37	0.1 - 0.1	0.036 J - 0.21	0.07	1.1	0.55	NP
Nickel	8/37	8 - 8	0.63 J - 19.1	3.8	5.4	3.9	ND
Potassium	16/37	1,000 - 1,000	18.8 J - 143	59	153	158	NP
Selenium	1/37	1 - 1	1.1	1.1	ND	ND	NP
Silver	3/37	2 - 2	0.55 J - 1.4	0.9	ND	ND	NP
Sodium	24/37	1,000 - 1,000	87 J - 160	123	312	225	NP
Vanadium	22/37	10 - 10	0.57 J - 4.5	1.6	15.4	15.1	ND
Zinc	9/37	4 - 4	2.33 J - 36.9	11.7	ND	ND	ND

See notes on following page.

Table 4-4 (Continued)
Subsurface Soil Inorganics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
[2] Value indicated by asterisk is the average of a sample and its duplicate.
[3] The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples with "U" or "UJ" validation qualifiers for that analyte.
[4] The background screening value is twice the average of detected concentrations for inorganic analytes in background samples.
[5] Florida Department of Environmental Protection (FDEP) memorandum dated July 5, 1994. Values presented are the lesser of the cleanup goals based on leachability.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: BOR3-1-1, BOR3-1-2, BOR3-2-1, BOR3-2-2, BOR3-3-1, BOR3-3-2, BOR3-4-1, BOR3-4-2, BOR3-5-1, BOR3-5-2, BOR3-6-1, BOR3-6-2, BOR3-7-1, BOR3-7-2, BOR3-8-1, BOR3-8-2, CF3SB1, CF3SB2, CF3SB3, CF3SB4, CF3SB5, CF3SB6, CF3SB7, CF3SB8, CF3SB9, CF3SB10, CF3SB11, CF3SB12, CF3SB13, CF3SB25, CF3SB26, CF3SB27, CF3SB28, CF3SB29, CF3SB30, CF3SB31, and CF3SB32
Duplicate samples include: BOR3-6-1D, CF3SB10D, CF3SB27D, and CF3SB32D
NP = analayte is not presented in FDEP guidance.
ND = analyte is presented in FDEP guidance but no data is provided.
mg/kg = milligrams per kilograms dry weight.
J = indicates chemical identified by chemist but quantity was estimated.
▒▒ = these chemicals represent human health chemicals of potential concern (HHCPCs).

Figure 4-5 Confirmatory Subsurface Soil Inorganics

0.11 to 0.32 mg/kg with the highest concentration being detected in the sample collected from boring BOR-3-5 at a depth of 0 to 2 feet bls. Beryllium was not detected in the background soil samples.

Manganese had a more widespread distribution over OU 8, in that it was detected in 32 of the 37 samples collected. Detections of manganese ranged from 1 mg/kg to 66.3 mg/kg and the background screening concentration was 7.8 mg/kg. Of the 32 manganese detections only 4 were above the background screening concentration of 7.8 mg/kg. All four of these detections were from samples collected from within or along the perimeter of the disposal pit. The highest detection (66.3 mg/kg) was in the sample collected from boring BOR-3-5 in the disposal pit at a depth of 0 to 2 feet bls.

Similar to the distribution of inorganics in surface soil, the detection of inorganics above the background screening concentrations appears to be most prevalent from within or along the perimeter of the former waste disposal pit.

4.2.2.3 **Summary of Analytical Results for Subsurface Soil** The results of the confirmatory subsurface soil sampling program indicates the presence of VOCs, SVOCs, pesticides, PCBs, and inorganics. The distribution of VOCs, SVOCs, and inorganics is generally similar with the highest concentrations located in soil borings near or within the pit area and at the helicopter crash site. Pesticides generally had a more sporadic distribution and low frequency of detection over the site.

The VOC detections were primarily chlorinated solvents and fuel-related VOCs and appear to be related to the previous waste disposal operations at OU 8 and from the volatilization of VOCs in groundwater near the helicopter crash site. The highest chlorinated solvent detected in subsurface soil was TCE at 270 μg/kg from soil boring CEF-3-BOR-6 which is located within the disposal pit boundary.

Several SVOCs were detected in subsurface soil at OU 8. The most commonly detected SVOCs included 1,4-dichlorobenzene and bis(2-ethylhexyl)phthalate. Of these two compounds, bis(2-ethylhexyl)phthalate had the most detections (15) and was detected at the highest concentration (6,800 μg/kg). Similar to VOCs, SVOCs appear to have the highest concentrations in borings within the disposal pit boundary and are most likely present from the past waste disposal operations.

The inorganic CPCs identified for OU 8 subsurface soil in the human health risk assessment included beryllium and manganese. Although only two CPCs were identified in the baseline risk assessment, other inorganics exceeded the background screening concentrations for OU 8. Inorganic analytes that exceeded the background subsurface soil concentration but were not CPCs included barium, calcium, chromium, copper, magnesium, and nickel. Antimony, cadmium, cyanide, selenium, silver, and zinc were not detected in the subsurface soil background set but were detected in at least one sample collected from OU 8. Detections of inorganics above background concentrations were primarily observed in samples collected from borings located within or along the perimeter of the former waste disposal pit.

4.2.3 Groundwater. The following discussion focuses on the significant findings of the groundwater investigation completed to support the RI at OU 8.

Only summaries of the groundwater data generated during the 1993 to 1994 groundwater investigation will be presented in this section. The complete 1993 to 1994 analytical data set for OU 8 is presented as Appendix M. The groundwater results of the 1991 to 1992 field investigation at OU 8 are discussed in Chapter 1.0 and are presented in Appendix A. Other information relating to the groundwater investigation (boring logs, well completion diagrams, water levels, etc.) is also fully presented in appendices.

A total of 37 monitoring wells were installed at OU 8 during field investigations. One of these wells, CEF-3-2 (installed in 1987) was abandoned in 1994 because the screened interval was 30 feet. Current monitoring well protocols consider a 30-foot long screen to be too long to accurately identify and delineate groundwater contamination.

Of the 36 existing wells, 33 are screened in the surficial aquifer and three are screened in the intermediate aquifer (UZH). Of the 33 wells installed in the surficial aquifer, 16 are screened in the shallow zone (UZS water table to approximately 30 feet bls), 6 are screened in the intermediate zone (IZS: 30 to 77 feet bls), and 11 are screened in the deep or lower zone (LZS: 60 to 100 feet bls). One UZS well (CEF-3-8S), one IZS well (CEF-3-9I), and one LZS (CEF-3-10D) are upgradient and are used to document background groundwater conditions. The results of these three wells are summarized in Appendix J and used for comparison to the results of the 30 site wells discussed below.

Discussion of sampling and chemical analysis results is presented by organic and inorganic analytical fractions for each of the surficial and intermediate aquifers. The discussion presents the results from the most recent sampling event (1994). Results of the field screening groundwater samples will be briefly discussed followed by a more detailed discussion of the confirmatory sample results.

4.2.3.1 Organic Analytes in Groundwater

Field Screening Sample Results. The results of the groundwater screening indicate the presence of organic contaminants (predominantly chlorinated solvents) which, based on their distribution, are interpreted to originate from the disposal pit area and migrate toward Rowell Creek with the natural flow of groundwater (Chapter 3.0). The most prevalent contaminants detected include: TCE, 1,1-DCA, 1,2-DCB, 1,1-DCE, and 1,4-DCB. The groundwater screening data are presented in Appendix D and are included, as appropriate, in the following discussion of confirmatory sample chemical analysis results.

Confirmatory Sample Results. The confirmatory organic analytical results for groundwater are summarized in Table 4-5. Chemical analytical results for the volatile fraction are discussed followed by the results of the semivolatile fraction, pesticides, and PCBs.

VOCs in the Surficial Aquifer. Based on the results of the VOC analysis of groundwater from the 30 surficial aquifer wells, 10 VOCS were detected. Of these 10 compounds, five exceeded human health risk criteria (ABB-ES, 1995a): 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethene (1,2-DCE), trichloroethene (TCE) and benzene (ABB-ES, 1995a). The detections of these VOCs are presented in Figure 4-6.

Table 4-5
Surficial Aquifer Groundwater Organics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations(*)[2]	Mean of Detected Concentrations[3]	Federal Primary MCL[4]	Florida Primary MCL[5]	Florida Guidance Concentration[6]
Volatiles (µg/l)							
1,1,1-Trichloroethane	4/30	1 - 170	96 - 860	342	200	200	200
1,1-Dichloroethane	8/30	1 - 170	1 - 590	167	NA	NA	700
1,1-Dichloroethene	8/30	1 - 170	2 - 350	115	7	7	7
1,2-Dichloroethene (total)	4/30	1 - 83	9 - 1,900	520	[9]70	[9]70	[9]70
2-Butanone	3/30	2 - 170	1 J - 25	9	NA	NA	4,200
4-Methyl-2-pentanone	1/30	2 - 170	2	2	NA	NA	350
Acetone	1/30	2 - 550	180	180	NA	NA	700
Benzene	1/30	1 - 83	26	26	5	1	1
Trichloroethene	6/30	1 - 83	9 - 1,700	480	5	3	3
Xylenes (total)	5/30	1 - 170	9 - 150	51	10,000	10,000	10,000
Semivolatiles (µg/l)							
1,2-Dichlorobenzene	4/30	10 - 2,000	350 - 9,800	2,960	600	600	600
1,3-Dichlorobenzene	4/30	10 - 2,000	9 J - 240	75.5	600	NA	10
1,4-Dichlorobenzene	4/30	10 - 2,000	49 - 1,300	400	75	75	75
2,4-Dichlorophenol	1/30	10 - 2,000	5 J	5	NA	NA	30
2,4-Dimethylphenol	3/30	10 - 2,000	0.5 J - 10	4	NA	NA	400
2-Methylnaphthalene	8/30	10 - 2,000	0.8 J - 200	76	NA	NA	NA
2-Methylphenol	2/30	10 - 2,000	8 J - 19	14	NA	NA	350
4-Methylphenol	4/30	10 - 2,000	3 J - 61	20	NA	NA	35
Benzo (b) fluoranthene	1/30	10 - 2,000	3 J	3	0.2	NA	4
Di-n-butylphthalate	1/30	10 - 2,000	0.8 J	0.8	NA	NA	700
Diethylphthalate	2/30	10 - 2,000	1 J - 3 J	2	NA	NA	5,600
Naphthalene	11/30	10 - 2,000	0.6 J - 450	108	NA	NA	6.8
Phenol	7/30	10 - 2,000	0.5 J - 10	3	NA	NA	10
bis(2-Ethylhexyl) phthalate	12/30	10 - 2,000	0.5 J - 61	8	6	6	6
Pesticides/PCBs (µg/l)							
Aroclor-1248	2/30	0.8 - 1	0.6 J - 0.79 J	0.7	0.5	0.5	0.5
Endosulfan II	1/30	0.1 - 0.1	0.04 J	0.04	NA	NA	NA
beta-BHC	1/30	0.03 - 0.08	0.05	0.05	NA	NA	0.1

See notes at end of table.

Table 4-5 (Continued)
Surficial Aquifer Groundwater Organics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations(*)[2]	Mean of Detected Concentrations[3]	Federal Primary MCL[4]	Florida Primary MCL[5]	Florida Guidance Concentration[6]
Total Recoverable Petroleum Hydrocarbons (µg/l)							
	7/30	0.5 - 0.5	425* - 2,100	1,300	NA	NA	NA

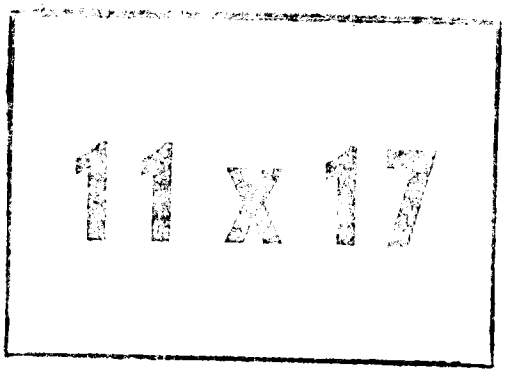
[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
[2] Value indicated by asterisk is the average of a sample and its duplicate.
[3] The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples with a "U" or "UJ" validation qualifier for that analyte.
[4] Federal Primary MCLs are taken from USEPA Drinking Water Regulations and Health Advisories (May 1994).
[5] Florida Primary Standards are taken from Chapter 1 (Primary Standards) of the FDEP Groundwater Guidance Concentrations (June 1995).
[6] Florida Guidance Concentrations are taken form Chapter 6 (Guidance Concentrations Index) of the FDEP Groundwater Guidance Concentrations (June 1994).

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: CF3MW1, CF3MW3S, CF3MW4S, CF3MW5S, CF3MW6S, CF3MW7D, CF3MW7S, CF3MW11I, CF3MW12D, CF3MW13S, CF3MW14I, CF3MW15D, CF3MW16S, CF3MW17D, CF3MW18S, CF3MW19D, CF3MW20S, CF3MW21I, CF3MW22D, CF3MW23S, CF3MW24D, CF3MW25S, CF3MW26I, CF3MW27D, CF3MW28S, CF3MW29D, CF3MW31S, CF3MW32D, CF3MW34S, and CF3MW35D
Duplicate samples include: CF3MW17DD and CF3MW24DD

µg/kg = micrograms per kilograms dry weight.
NA = not applicable.
J = indicates chemical identified by chemist but quantity was estimated.
Shaded = these chemicals represent human health chemicals of potential concern (HHCPCs).

Figure 4-6 Volatile Organic Compounds (VOCs) in Monitoring Wells



Representative Aquaprobe™ groundwater screening results were included to present as complete a picture as possible with the data generated. Representative Aquaprobe™ results are from sample locations where groundwater was not observed in the drill stem (potentially contaminating or diluting the sample) prior to deploying the four feet of screen and sample collection equipment. To further support the use of groundwater screening data, representative Aquaprobe™ results were compared to Level IV data quality analytical results from nearby monitoring wells and found to show good correlation between the detected concentrations in the UZS.

A comparison of Aquaprobe™ groundwater screening data with nearby monitoring well data is presented in Appendix D.

The VOCs appear to have migrated with the natural flow of groundwater (Chapter 3.0) from the former waste disposal pit area to Rowell Creek. The general groundwater flow direction in the surficial aquifer is to the east-southeast. There is also a downward flow component which is evident at the waste disposal pit area, and continues for approximately 700 to 800 feet downgradient (east-southeast). At this point, the vertical flow gradient becomes upward. Both the vertical and horizontal gradients become increasingly steeper over the remaining 400 feet to Rowell Creek. The pronounced upward gradients indicate that the surficial aquifer discharges to Rowell Creek. No VOC detections were observed on the east side of Rowell Creek, supporting the interpretation that VOC contaminated groundwater in the surficial aquifer discharges into the creek.

Although VOC contaminated groundwater may be discharging into Rowell Creek, no VOC detections in surface water adjacent to the discharge area have been observed. The absence of VOCs in surface water is most likely the result of dilution and volatilization and is further discussed in Chapter 5.0. Chapter 3.0 presents more detail on the hydrogeology and figures showing the interpreted groundwater flow paths in cross section. The following paragraphs summarize the VOC detections and areal and vertical distributions.

1,1-DCE was detected in 8 monitoring wells with a maximum concentration of 350 $\mu g/\ell$ in monitoring well CEF-3-13S. Detections of 1,1-DCE were only observed in wells screened in the UZS to a maximum depth of 31 feet bls. However, 1,1-DCE was detected in representative Aquaprobe 3-29 (50 $\mu g/\ell$) in the 67 to 71 foot blsinterval, approximately 500 feet downgradient of the former waste disposal pit area. At this location, groundwater flow has begun to move upward after flowing downward from the waste pit area. Concentrations of 1,1-DCE in monitoring wells decrease downgradient from the source: 160 $\mu g/\ell$ in CEF-3-28S and 28 $\mu g/\ell$ in CEF-3-31S. The distribution of 1,1-DCE has been shown in more detail with in Figure 4-7 (areal distribution) and Figure 4-8 (vertical distribution).

TCE was detected at concentrations ranging from 9 to 1700 $\mu g/\ell$ in six monitoring wells. The highest TCE concentration was in well CEF-3-13S, which is located in the disposal pit area. Detections of TCE were only in wells screened in the UZS, with the exception of well CEF-3-14I, which is screened in the IZS from 46 to 56 feet bls. However, TCE was detected in representative Aquaprobe™ 3-29 (240 $\mu g/\ell$) in the 67 to 71 foot bls interval, and in representative Aquaprobe™ 3-34 (3 $\mu g/\ell$) in the 72 to 76 foot bls interval, both approximately 500 feet downgradient of the former waste disposal pit area. At this location, groundwater flow has begun

Figure 4-7 1,1-DCE in the Upper Zone of the Surficial Aquifer

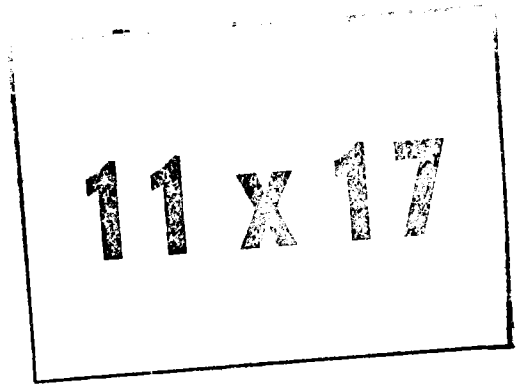


Figure 4-8 1,1-DCE Vertical Distribution Along Flowpath

to move upward after flowing downward from the waste pit area. The distribution of TCE has been shown in more detail in Figure 4-9 (areal distribution) and Figure 4-10 (vertical distribution).

The VOC 1,2-DCE was detected in four monitoring wells. The maximum concentration of 1,2-DCE was detected in monitoring well CEF-3-13S at 1900 $\mu g/\ell$. Although 1,2-DCE was detected in only five wells, it was distributed the entire length of the groundwater contaminant plume from CEF-3-3S at the source area to CEF-3-31S adjacent to Rowell Creek. These detections were also only observed in the shallow UZS wells.

1,1-DCA was detected in eight monitoring wells with concentrations ranging from 1 to 590 $\mu g/\ell$. All detections of 1,1-DCA were in monitoring wells that are screened in the UZS (less than 30 feet bls) with the exception of one well, CEF-3-14I, which is screened in the IZS from 46 to 56 feet bls where the 1,1 DCA concentration was 1 $\mu g/\ell$. The highest detection of 1,1-DCA was in monitoring well CEF-3-6S, which is located in the disposal pit area. The concentration of 1,1-DCA decreases downgradient of the disposal pit area as seen in CEF-3-28S (94 $\mu g/\ell$) and further downgradient near Rowell Creek in CEF-3-31S (9 $\mu g/\ell$).

Benzene was only detected in one well, CEF-3-6S, at a concentration of 26 $\mu g/\ell$. This well is located in the disposal pit area and is screened between 3.5 and 13.5 feet bls.

SVOCs in the Surficial Aquifer. Based on the results of SVOC analyses of groundwater from the 30 surficial aquifer wells, 14 compounds were detected. A summary of all detected SVOCs is presented in Table 4-5. Of these 18 compounds, 6 exceeded the human health risk criteria (ABB-ES, 1995a): 1,2-dichlorobenzene (1,2 DCB); 1,4-dichlorobenzene (1,4 DCB); benzo(b)fluoranthene; naphthalene; 4-methylphenol; and bis(2-ethylhexyl)phthalate. The detections of these SVOCs are presented in Figure 4-11.

The detection of SVOCs has been observed to extend from the disposal pit area to approximately 1,400 feet downgradient toward Rowell Creek. However, the detections of SVOCs that contribute to the risk were only observed at the source area and in monitoring wells (CEF-3-18S and CEF-3-28S) approximately 900 feet downgradient. SVOCs were detected on the east side of Rowell Creek but are interpreted to be unrelated to the pit area because groundwater on the east side of Rowell Creek is moving to the west and discharging into Rowell Creek. The following paragraphs summarize the SVOC detections and distribution.

1,2-DCB and 1,4-DCB were detected in 4 (CEF-3-7S, CEF-3-13S, CEF-3-14I, and CEF-3-28S) of the 30 surficial aquifer monitoring wells. The highest concentrations were 9,800 $\mu g/\ell$ and 1,300 J $\mu g/\ell$, respectively, in the disposal pit area monitoring well CEF-3-13S which is screened from 9 to 19 feet bls. Monitoring well CEF-3-14I, screened in the cluster with CEF-3-13S from 46 to 56 feet bls, also contained both dichlorobenzenes, but at a lower concentrations (1,100 $\mu g/\ell$ and 170 J $\mu g/\ell$, respectively). The dichlorobenzenes were not observed in any well below a depth of 56 feet. The farthest downgradient detection was in well CEF-3-28S at 600 $\mu g/\ell$ and 83 J $\mu g/\ell$, respectively. This well is approximately 900 feet downgradient of the disposal pit area.

Figure 4-9 TCE Distribution in the Upper Zone of the Surficial Aquifer

Figure 4-10 TCE Vertical Distribution Along Flowpath

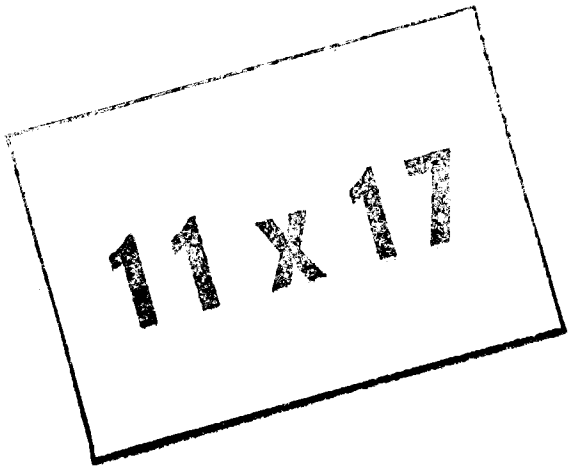


Figure 4-11 Semivolatile Organic Compounds (SVOCs) in Monitoring Wells

Benzo(b)fluoranthene was detected in only one groundwater sample, CEF-3-7S, at a concentration of 3 J $\mu g/\ell$. It was detected at the disposal pit area and is most likely related to waste oil and fuel disposal at OU 8.

Naphthalene was one of the most widespread SVOCs detected at OU 8. Eleven of the 33 surficial wells contained naphthalene at concentrations ranging from 0.6 to 450 $\mu g/\ell$. The highest detections were observed in the disposal pit area UZS wells CEF-3-4S (160 $\mu g/\ell$), CEF-3-6S (270 $\mu g/\ell$), CEF-3-7S (150 $\mu g/\ell$), and CEF-3-13S (450 J $\mu g/\ell$). Naphthalene was detected approximately 900 feet downgradient in monitoring wells CEF-3-18S (0.6 J $\mu g/\ell$) and CEF-3-28S (77 J $\mu g/\ell$) but was not detected in any wells further downgradient near Rowell Creek. The source of naphthalene is most likely from waste oil and fuel disposed of at OU 8.

4-Methylphenol was detected in four monitoring wells, all of which are located in the disposal pit area. The highest detection was observed in well CEF-3-6S at 61 $\mu g/\ell$.

Bis(2-ethylhexyl)phthalate (BEP), a common laboratory contaminant, was the most widely detected SVOC. The highest detection of BEP was 61 $\mu g/\ell$ in well CEF-3-34S, which is on the east side of Rowell Creek and cannot be hydraulically linked to the disposal pit area. The highest concentration of BEP on the west side of Rowell Creek was 13 $\mu g/\ell$ in the duplicate sample from CEF-3-17D. This well is screened from 84 to 94 feet bls and, based on the conceptual understanding of groundwater flow at OU 8 and the absence of other organic contaminants known to migrate from the disposal pit, it does not appear that this detection is related to the disposal pit area.

Pesticides and PCBs in the Surficial Aquifer. The pesticides Endosulfan II and beta-BHC and the PCB Aroclor-1248 were detected in the groundwater at OU 8. Aroclor-1248 was detected in 2 of the 33 surficial monitoring wells at concentrations of 0.6 J $\mu g/\ell$ (CEF-3-4S) and 0.79 J $\mu g/\ell$ (CEF-3-6S). Both of the wells are located in the disposal pit area and may be related to the waste disposal operations at OU 8 as a contaminant of waste oils.

Organics in the Intermediate Aquifer. The only organic compounds detected in the intermediate aquifer were phenol at 1 J $\mu g/\ell$ and bis(2-ethylhexyl)phthalate at 2 J $\mu g/\ell$. Both of these compounds were detected in well CEF-3-33DD, which is located below the disposal pit area and screened in the dolomite between 108 and 118 feet bls. Both of these compounds were detected at comparably low concentrations in the upgradient background well CEF-3-10D, which is screened from 90 to 100 feet bls, and do not appear to be site related due to the absence of these compounds in the overlying shallow UZS wells near the disposal pit area.

4.2.3.2 **Inorganic Analytes in Groundwater** The organic analytical results for groundwater are summarized with background screening concentrations in Table 4-6.

Inorganic Analytes in the Surficial Aquifer. Based on the results of inorganic chemical analyses of unfiltered groundwater from the 30 surficial aquifer wells, 18 inorganics were detected. Of these 18 inorganics, 4 exceed human health risk criteria (ABB-ES, 1995a): arsenic, chromium, manganese, and vanadium. The distribution of these four inorganics is presented in Figure 4-12.

Arsenic was detected in 12 of the 30 surficial aquifer at concentrations ranging from 1 J $\mu g/\ell$ (CEF-3-9I) to 24.7 $\mu g/\ell$ (CEF-3-13D). However, arsenic was detected

Table 4-6
Surficial Aquifer Groundwater Inorganics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations (*)[2]	Mean of Detected Concentrations[3]	Screening Background Concentration[4]	Maximum Background Concentration	Federal Primary MCL[5]	Florida Primary Standard[6]	Florida Guidance Concentration[7]
Inorganics (µg/ℓ)									
Aluminum	14/30	200 - 200	37.4 J - 47,400	7,560	17,200	15,200	[8]200	NA	200
Antimony	2/30	60 - 60	4.5 J - 9.2 J	6.9	ND	ND	6	6	6
Arsenic	12/30	10 - 10	1.5 J - 24.7	7.1	7.6	6.6	50	50	50
Barium	30/30	200 - 200	6 J - 312	36	42	29.8	2,000	2,000	2,000
Calcium	29/30	5,000 - 5,000	419 J - 71,300	37,800	47,100	67,200	NA	NA	NA
Chromium	3/30	10 - 10	5.6 J - 36.6	22.3	ND	ND	100	100	100
Cobalt	7/30	50 - 50	9.5 J - 14 J	11.2	20	9.9	NA	NA	NA
Copper	6/30	25 - 25	6.1 J - 73.5	23	ND	ND	[8]1,000	NA	1,000
Iron	17/30	100 - 100	44.6 J - 36,500	4,490	2,500	1,780	[8]300	NA	300
Lead	6/30	3 - 3	1 J - 7.6	3	13	6.3	[9]15	15	15
Magnesium	30/30	5,000 - 5,000	247 J - 24,400	7,020	6,820	5,620	NA	NA	NA
Manganese	22/30	15 - 15	3.6 J - 221	42	99	49.5	[8]50	NA	50
Nickel	1/30	40 - 40	12.8 J	12.8	38	19	100	100	100
Potassium	29/30	5,000 - 5,000	103 J - 4,600 J	1,544	3,920	1,960	NA	NA	NA
Selenium	1/30	5 - 5	5	5	4	2	50	50	50
Sodium	30/30	5,000 - 5,000	1,920 J - 13,700	8,030	12,400	8,760	NA	160,000	160,000
Vanadium	3/30	50 - 50	6.6 J - 27.4 J	20.2	ND	ND	NA	NA	49
Zinc	9/30	20 - 20	2.1 J - 41.4	12.3	ND	ND	5,000	NA	5,000

See notes at end of table.

Table 4-6 (Continued)
Surficial Aquifer Groundwater Inorganics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations (*)[2]	Mean of Detected Concentrations[3]	Screening Background Concentration[4]	Maximum Background Concentration	Federal Primary MCL[5]	Florida Primary Standard[6]	Florida Guidance Concentration[7]

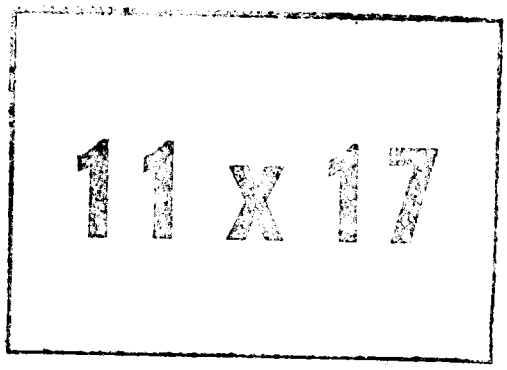
[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
[2] Value indicated by asterisk is the average of a sample and its duplicate.
[3] The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples with a "U" or "UJ" validation qualifier for that analyte.
[4] The background screening value is twice the average of detected concentrations for inorganic analytes in background samples.
[5] Federal Primary MCLs are taken from USEPA Drinking Water Regulations and Health Advisories (May 1994).
[6] Florida Primary Standards are taken from Chapter 1 (Primary Standards) of the FDEP Groundwater Guidance Concentrations (June 1995).
[7] Florida Guidance Concentrations are taken from Chapter 6 (Guidance Concentrations Index) of the FDEP Groundwater Guidance Concentrations (June 1994).
[8] Value is a Federal Secondary MCL.
[9] Treatment technology action limit for drinking water distribution systems per "Drinking Water Regulations and Health Advisories", USEPA, Office of Water, December 1993.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: CF3MW1, CF3MW3S, CF3MW4S, CF3MW5S, CF3MW6S, CF3MW7D, CF3MW7S, CF3MW11I, CF3MW12D, CF3MW13S, CF3MW14I, CF3MW15D, CF3MW16S, CF3MW17D, CF3MW18S, CF3MW19D, CF3MW20S, CF3MW21I, CF3MW22D, CF3MW23S, CF3MW24D, CF3MW25S, CF3MW26I, CF3MW27D, CF3MW28S, CF3MW29D, CF3MW31S, CF3MW32D, CF3MW34S, and CF3MW35D
Duplicate samples include: CF3MW17DD and CF3MW24DD

$\mu g/\ell$ = micrograms per liter.
J = indicates chemical identified by chemist but quantity was estimated.
▒▒ = these chemicals represent human health chemicals of potential concern (HHCPCs).
NA = not applicable.

Figure 4-12 Inorganic Detections in Monitoring Wells



above the background screening concentration of 7.6 µg/ℓ in only four wells; CEF-3-15D (24.7 µg/ℓ), CEF-3-14I (11.5 µg/ℓ), CEF-3-23S (10.3 µg/ℓ), and CEF-3-24D (9.2 µg/ℓ, average of sample and duplicate). The highest concentrations of arsenic were observed in the disposal pit area, but in the deeper IZS and LZS wells (CEF-3-14I and CEF-3-15D) as opposed to the highest concentrations of organics being detected in the shallow UZS wells immediately below the disposal pit. Based on its presence in the IZS and LZS background wells, its highest concentrations in the IZS and LZS wells, and relatively low detections in the UZS, arsenic is interpreted to be indigenous to the IZS and LZS portions of the aquifer in this area and not a result of the former waste disposal operations at OU 8.

Manganese was detected in 22 of 30 surficial monitoring wells at concentrations ranging from 3.6 to 221 µg/ℓ. Manganese was detected above the background screening concentration of 99 µg/ℓ in only three wells: CEF-3-16S (221 µg/ℓ), CEF-3-7S (170 µg/ℓ), and CEF-3-3S (150 µg/ℓ). Unlike arsenic, the highest concentrations of manganese were detected in the shallow wells of the UZS near the disposal pit area. The highest detection, 221 µg/ℓ in well CEF-3-16S, is outside the extent of the organic plume and somewhat cross-gradient from the disposal pit area. Manganese was also detected in the upgradient well CEF-3-10D (at 49.5 µg/ℓ) which is screened in the LZS (90 to 100 feet bls) and in many of the downgradient IZS and LZS wells. Due to the widespread distribution of manganese throughout the surficial aquifer and the presence of manganese in an upgradient well, the presence of manganese in groundwater at OU 8 cannot solely be attributed to the source area. Other than at CEF-16S and 17D (south of the organic plume and 350 feet southeast of the disposal pit) all manganese detections higher than upgradient wells were located in the disposal pit area.

Chromium was only detected in three wells, at concentrations ranging from 5.6 to 36.6 µg/ℓ. Chromium was not detected in the background wells. Two of the chromium detections were in shallow UZS wells CEF-3-3S and CEF-3-5S located near the pit area and outside the organic plume. The other detection was in CEF-3-26I which is somewhat cross-gradient from the disposal pit area and outside the organic plume. Because chromium was detected in the shallow wells CEF-3-3S and CEF-3-5S near the disposal pit and at only one other location in the study area, its presence may be related to the disposal pit at OU 8.

Vanadium was also detected in three monitoring wells with a maximum concentration of 27.4 µg/ℓ in well CEF-3-26I. Vanadium was also not detected in the background wells. The two highest detections of vanadium were observed in the disposal pit area wells where organic compounds were also detected. For this reason and the absence of vanadium in other OU 8 wells except CEF-3-23S, it appears that the detections of vanadium may be site-related. The third location was in the vicinity of the helicopter crash site.

Inorganic Analytes in the Intermediate Aquifer. Only two (arsenic and manganese) of the four inorganic analytes were detected in the intermediate aquifer. Arsenic was detected in one of the three intermediate aquifer wells, CEF-3-33D at 1.2 J µg/ℓ. Manganese was detected in all three intermediate aquifer monitoring wells at concentrations ranging from 10.8 J µg/ℓ in CEF-3-7DD to 37.9 µg/ℓ in CEF-3-33DD. All detections of arsenic and manganese in the intermediate aquifer were below the surficial aquifer background screening concentrations. According to the conceptual model developed in Chapter 3.0, groundwater flow has a downward component in the disposal pit area in addition to predominant horizontal flow. Downgradient of the disposal pit area, the groundwater develops an upward flow

component from the surficial aquifer to Rowell Creek. Based on this conceptual model, it does not appear that these inorganic detections are related to the disposal pit.

4.2.3.3 Summary of Analytical Results for Groundwater

Summary of Organics in the Surficial Aquifer. Ten VOCs were detected in groundwater samples collected from the surficial aquifer. Five of these 10 compounds exceeded human health risk criteria: 1,1-DCA, 1,1-DCE, 1,2-DCE, TCE, and benzene. The detection of VOCs has been observed to extend from the disposal pit area to approximately 1,400 feet downgradient toward Rowell Creek. No VOC detections were observed on the east side of Rowell Creek, indicating that VOC contaminated groundwater in the surficial aquifer on the westside of Rowell Creek is discharging into the creek.

A total of 14 SVOCs were detected in groundwater samples collected from the surficial aquifer. Of these 14 compounds, six were identified as characteristic at OU 8: 1,2 DCB, 1,4 DCB, benzo(b)fluoranthene, naphthalene, 4-methylphenol, and bis(2-ethylhexyl)phthalate.

Based on the historical operations at OU 8 and the VOC and SVOC contaminant distribution in the surficial aquifer, it is evident that the source of these contaminants is the former waste disposal pit at OU 8.

The only pesticides or PCBs that were detected in the groundwater at OU 8 were the pesticides Endosulfan II and beta-BHC and the PCB Aroclor-1248. Aroclor-1248 was detected in 2 of the 30 surficial monitoring wells at concentrations of 0.6 J $\mu g/\ell$ (CEF-3-4S) and 0.79 J $\mu g/\ell$ (CEF-3-6S). Both of the wells are located in the disposal pit area.

Summary of Inorganics in the Surficial Aquifer. Based on the results of inorganics analyses of unfiltered groundwater from the 30 surficial aquifer wells, 18 inorganics were detected. Of these 18 inorganics, arsenic, chromium, manganese, and vanadium exceed human health risk criteria and appear to have elevated concentrations in the vicinity of the disposal pit.

Summary of Organics in the Intermediate Aquifer. The only organic compounds detected in the intermediate aquifer were phenol at 1 J $\mu g/\ell$ and bis(2-ethylhexyl)phthalate at 2 J $\mu g/\ell$. Both of these compounds were detected in well CEF-3-33DD, which is located in the source area and screened in the dolomite between 108 and 118 feet bls. Both of these compounds were detected at low concentrations in the upgradient background well CEF-3-10D, which is screened from 90 to 100 feet bls, and do not appear to be site related due to the absence of these compounds in the shallow UZS wells near the source area.

Summary of Inorganics in the Intermediate Aquifer. Only two (arsenic and manganese) of the four inorganic analytes which exceed human health risk criteria were detected in the intermediate aquifer. The detections of these two inorganics were below surficial aquifer background screening concentrations. Based on the conceptual model developed for groundwater flow that indicates a downward component to the predominant horizontal groundwater flow in the disposal pit area, it does not appear that these inorganic detections are site-related.

4.2.4 Surface Water and Sediment Surface water and sediment samples were collected during the current investigation in 1993 and 1994 to support the RI, BRA, and FS for OU 8. Section 2.4 presents: (1) the methods used during the collection of surface water and sediment samples, (2) the analysis completed at each sampling location, and (3) the rationale for the selection of sampling locations. The following discussion, focusing on the nature and extent of contamination detected, evaluates only the results of TCL and TAL analyses.

Surface water and sediment samples were collected from three locations in Rowell Creek. One location, RC-SW/SD-BIO-3, was sampled in August 1993. The two other sampling locations, CF-SW/SD-1 and CF-SW/SD-2, were sampled during the confirmatory event in November 1994. Background concentrations for surface water and sediment are based on results for CF-SW/SD-2, the upgradient sampling location. The results from this background location are summarized in Appendix J.

RC-SW/SD-3 is located in Rowell Creek where the groundwater plume discharges. Sampling location CF-SW/SD-1 is approximately 75 feet downgradient of RC-SW/SD-BIO-3. Background location CF-SW/SD-2 is approximately 250 feet upgradient of RC-SW/SD-3.

Discussion of sampling results is presented by organic and inorganic analytical fractions. Due to the large number of inorganic compounds detected in surface water and sediment samples, only inorganic analytes that are CPCs in the risk assessment will be presented on figures and discussed in the text.

The evaluation of the surface water and sediment data was made based on the conceptual understanding of the transport pathways of contaminants from the source area to Rowell Creek. Contaminants detected in groundwater samples (assuming no biodegradation or other physical and chemical processes that would break down contaminants) will eventually discharge into Rowell Creek and may be detected in sediment and surface water. Based on topography, contaminants in surface soil from the helicopter crash site area would be the most likely contributors of sediment contamination in Rowell Creek via surface water runoff and overland transport of surface soil. In order to evaluate if the presence of contaminants in surface water and sediment samples is a result of contaminant transport from OU 8, surface water sample results were compared to groundwater data from shallow monitoring wells adjacent to Rowell Creek and sediment sample results were compared to surface soil samples collected from the helicopter crash site.

Another potential source of surface water and sediment contamination unrelated to OU 8 is the FOTW effluent that discharges into Rowell Creek at the base (south side) of the Lake Fretwell dam. All three surface water and sediment samples included in this assessment were collected downstream of this effluent outfall.

4.2.4.1 **Organics in Surface Water and Sediment** The organic analytical results for surface water and sediment are summarized in Table 4-7, and shown on Figure 4-13.

VOCs in Surface Water. VOCs were the only organic compounds detected in surface water. Based on the results of VOC analyses of the three surface water samples, four VOCs were detected: bromodichloromethane, dibromochloromethane, methylene chloride, and chloroform. The detections of bromodichloromethane, dibromochloromethane, and chloroform are most likely from the wastewater treatment plant

Table 4-7
Surface Water and Sediment Organics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations(*)[2]	Mean of Detected Concentrations[3]	FDEP Class III Fresh Water Quality Standards[4] (µg/ℓ)	AWQC[5] (µg/ℓ)	USEPA SQGs[6]
Surface Water Volatiles (µg/ℓ)							
Dibromochloromethane	1/2	1.5 - 10	1.3* J	1.3	34	NA	--
Bromodichloromethane	2/2	1 - 1	2 - 3.5*	2.8	22	NA	--
Chloroform	2/2	2 - 10	5* - 5*	5	470.8	1,240	--
Methylene chloride	1/2	2 - 10	3.5*	3.5	1,580	NA	--
Total Recoverable Petroleum Hydrocarbons (µg/ℓ)							
Not Detected							
Sediment Volatiles (µg/kg)							
2-Butanone	2/2	14 - 14	5.5* J - 6 J	5.8	--	--	NA
Semivolatiles (µg/kg)							
Di-n-butylphthalate	1/2	460 - 460	310 J	310	--	--	NA
bis(2-Ethylhexyl) phthalate	1/2	460 - 460	260 J	260	--	--	NA
Pesticides/PCBs (µg/kg)							
4,4-DDE	1/2	4 - 4.65	1.8 J	1.8	--	--	NA
4,4-DDT	1/2	4.5 - 4.6	3.4* J	3.4	--	--	8.28
Aroclor-1254	1/2	45 - 46.5	180	180	--	--	195
Dieldrin	1/2	4.4 - 4.5	3.5* J	3.5	--	--	1.3
Endrin ketone	1/2	4.4 - 4.5	1.5* J	1.5	--	--	NA
Total Recoverable Petroleum Hydrocarbons (µg/kg)							
Not Detected							

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
[2] Value indicated by asterisk is the average of a sample and its duplicate.
[3] The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples with a "U" or "UJ" validation qualifier for that analyte.
[4] Chapter 62-302, Surface Water Quality Standards (Florida Legislature, 1995).
[5] Federal Ambient Water Quality Chronic Criteria (U.S. Environmental Protection Agency [USEPA], 1991g; 1988a).
[6] USEPA (1988c) mean Sediment Quality Criteria (SQCs) values at 1 percent total organic carbon (TOC) (used instead of site-specific TOC of 0.34 percent). All values represent Final Residue Values (FRVs).

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: CF3SW1/SD1 and RCSW3/SD3
Duplicate samples include: CF3SW1D/SD1D

µg/kg = micrograms per kilograms.
µg/ℓ = micrograms per liter.
J = indicates chemical identified by chemist but quantity was estimated.
= these chemicals represent human health chemicals of potential concern (HHCPCs).
NA = not applicable.

Figure 4-13 Confirmatory Surface Water and Sediment Organics

effluent which enters Rowell Creek upstream of these sampling locations near the base of the Lake Fretwell dam. These VOCs are common by-products of the chlorination process used during the treatment of wastewater and were not detected in any medium in the disposal pit area. Chloroform was detected at all three sampling locations, with the maximum concentration (5 $\mu g/\ell$) detected at locations CF-SW-1 and RC-SW-3. Chloroform was detected in the background location, CF-SW-2, at a concentration of 7 $\mu g/\ell$. Bromodichloromethane was detected at all three locations, CF-SW-1 (4 $\mu g/\ell$, average of sample and duplicate), CF-SW-2 (5 $\mu g/\ell$), and RC-SW-3 (2 $\mu g/\ell$). Dibromochloromethane was detected at locations CF-SW-1 and CF-SW-2 at concentrations of 1 (average of sample and duplicate) and 2 $\mu g/\ell$, respectively.

Methylene chloride (a common laboratory artifact) was detected at CF-SW-1 and the background location, CF-SW-2, at concentrations of 4 $\mu g/\ell$ (average of sample and duplicate) and 3 $\mu g/\ell$ respectively. Methylene chloride, a common laboratory contaminant, was not detected in any OU 8 groundwater samples.

VOCs in Sediment. 2-Butanone (a common laboratory artifact) was the only VOC detected in the sediment samples. 2-Butanone was detected at CF-SD-1 (4 J $\mu g/\ell$) and RC-SD-3 (6 J $\mu g/\ell$). 2-butanone does not appear related to the disposal pit area because it was not detected in groundwater (groundwater that could later discharge into Rowell Creek and potentially contaminate the sediment) from the shallow monitoring wells adjacent to Rowell Creek or in surface soil samples nearest Rowell Creek.

SVOCs in Sediment. Two SVOC compounds were detected in the sediment samples: di-n-butylphthalate and bis(2-ethylhexyl)phthalate.

The two SVOCs were detected at only one location, RC-SD-3. Di-n-butylphthalate was detected at a concentration of 310 J $\mu g/kg$ and bis(2-ethylhexyl)phthalate was detected at 260 J $\mu g/kg$. Di-n-butylphthalate was not detected in any groundwater samples from shallow monitoring wells adjacent to Rowell Creek or in any surface soil samples collected at the helicopter crash site area.

Bis(2-ethylhexyl)phthalate was detected in monitoring well CEF-3-34S which is on the east side of Rowell Creek and slightly upstream of location RC-SD-3. Since the bis(2-ethylhexyl)phthalate was detected in well CEF-3-34S which is on the east side of Rowell Creek, it can not be hydraulically linked to OU 8. Bis(2-ethylhexyl)phthalate was not detected in any of the surface soil samples collected from the helicopter crash site area. Phthalates are a common laboratory contaminant.

Pesticides and PCBs in Surface Water. No pesticides or PCBs were detected in the surface water. The pesticide Endosulfan I was detected in the background surface water sample from CF-SW-2 at 0.008 $\mu g/\ell$. The presence of this pesticide in the background sample is most likely the result of previous basewide use of pesticides.

Pesticides and PCBs in Sediment. Four pesticides and one PCB were detected in the sediment samples collected from Rowell Creek adjacent to OU 8.

The four pesticides detected in sediment included endrin ketone, dieldrin, 4,4-DDT, and 4,4-DDE. Endrin ketone at 1.5 J $\mu g/kg$, Dieldrin at 9.7 $\mu g/kg$, 4,4-DDT at 3.4 $\mu g/kg$, and 4,4-DDE at 1.5 J $\mu g/kg$ (all average of sample and duplicate) were only detected in the furthest downstream location CF-SD-1. The only other pesticide detected was 4,4 DDE in sample RC-SD-3 at a concentration of 1.8 $\mu g/kg$. Endrin ketone and 4,4 DDT were detected in surface soil samples collected near the helicopter crash site. The presence

of pesticides in Rowell Creek sediments is most likely the result of previous basewide use of pesticides and not the result of waste disposal operations at OU 8.

Aroclor 1254 was only detected in sample RC-SD-3, at a concentration of 180 µg/kg. Aroclor 1254 was detected in only one OU 8 surface soil sample (CF3SS10 at 10 µg/kg) which was located on the south side of the access road. Since this side of the road drains to Rowell Creek, it is possible that the detection is related to waste disposal operations or oiling of unpaved roads at OU 8. Arochlor 1254 has been found at locations upgradient on Rowell Creek (e.g., Lake Fretwell).

4.2.4.2 **Inorganics in Surface Water and Sediment** The inorganic analytical results for surface water and sediment are summarized in Table 4-8 (with the background screening concentrations).

Inorganics in Surface Water. Based on the results of inorganic analyses of the two surface water samples, five inorganic CPCs were identified in the BRA (ABB-ES, 1995a): aluminum, antimony, iron, lead, and silver. Of these five inorganics, only iron was detected in the upstream background sample CF-SD-2. The detections of these inorganics are presented in Figure 4-14.

Aluminum was detected at the highest concentration (559 µg/ℓ, average of the sample and its duplicate sample) in the furthest downstream sample, CF-SW-1. Aluminum was also detected in surface water sample RC-SW-3 at a concentration of 141 µg/ℓ but was not detected in the upstream background sample CF-SW-2. Aluminum was detected in monitoring well CEF-3-31S adjacent to Rowell Creek but at a lower concentration of 44.3 µg/ℓ. If the contaminant plume was the source of aluminum in surface water, the concentration would be much higher in groundwater since it is diluted upon discharge into Rowell Creek.

Antimony was only detected in sample CF-SW-1 at a concentration of 16.2 (average of the sample and its duplicate sample). Antimony was not detected in the groundwater sample collected from monitoring well CEF-3-31S which is upstream of the sampling location and at the leading edge of the OU 8 groundwater contaminant plume discharging to Rowell Creek.

Iron was detected in all three surface water samples collected adjacent to OU 8. The upstream background screening concentration of 910 µg/ℓ was nearly the same at the downstream location CF-SW-1 (976 µg/ℓ, average of the sample and its duplicate sample). Iron was detected at a lower concentration in monitoring well CEF-3-31S (54.2 µg/ℓ) and the presence of iron is most likely the result of the natural occurrence of iron in the native soil.

Lead was detected in the downstream sample, CF-SW-1, at a concentration of 2.4 J µg/ℓ. Lead was not detected in the upstream background surface water sample CF-SW-2 or in the groundwater from monitoring well CEF-3-31S.

Silver was only detected at surface water sample location RC-SW-3 at a concentration of 0.24 J µg/ℓ. Silver was not detected in the upstream background sample CF-SW-2 or in the groundwater sample collected from monitoring well CEF-3-31S.

Inorganics in Sediment. Based on the inorganic analytical results of the two sediment samples, four inorganics were identified as CPCs in the BRA (ABB-ES,

Table 4-8
Surface Water and Sediment Inorganics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations (*)[2]	Mean of Detected Concentrations[3]	Screening Background Concentration[4]	Maximum Background Concentration	FDEP Class III Fresh Water Quality Standards[5] (µg/ℓ)	AWQC[6] (µg/ℓ)	USEPA SQGs[7]
Surface Water Inorganics (µg/ℓ)									
Aluminum	2/2	200 - 200	141 - 559*	350	ND	ND	NA	[8]87	--
Antimony	1/2	60 - 60	16.2* J	16.2	ND	ND	4,300	160	--
Barium	1/2	200 - 200	26.1* J	26.1	55.6	27.8	NA	NA	--
Calcium	2/2	5,000 - 5,000	16,700* - 26,500	21,600	46,400	23,200	NA	NA	--
Copper	1/2	25 - 25	4.6* J	4.6	4.6	2.3	12	12	--
Iron	2/2	100 - 100	702 - 976*	839	910	455	1,000	1,000	--
Lead	1/2	5 - 5	2.4* J	2.4	ND	ND	3.3	3.3	--
Magnesium	2/2	5,000 - 5,000	3,490* J - 9,670	6,580	12,100	6,050	NA	NA	--
Manganese	2/2	15 - 15	10.7 J - 19.7*	15.2	35.6	17.8	NA	NA	--
Potassium	2/2	5,000 - 5,000	1,260* J - 4,500 J	2,878	5,380	2,690	NA	NA	--
Silver	1/2	10 - 10	0.24 J	0.24	ND	ND	0.07	0.12	
Sodium	2/2	5,000 - 5,000	10,800* J - 27,200	19,005	38,000	19,000	NA	NA	--
Vanadium	1/2	50 - 50	1.8* J	1.8	2.8	1.4	NA	NA	--
Sediment Inorganics (mg/kg)									
Aluminum	2/2	40 - 40	394* - 1,010	700	1,140	568	--	--	NA
Barium	1/2	40 - 40	6.9 J	6.9	ND	ND	--	--	NA
Calcium	2/2	1,000 - 1,000	351* J - 912 J	631	1,040	520	--	--	NA
Copper	1/2	5 - 5	3.4 J	3.4	ND	ND	--	--	NA
Iron	2/2	20 - 20	271* - 599	435	526	263	--	--	NA
Lead	2/2	0.6 - 1	3.5* - 6.2	4.9	5.8	2.6	--	--	NA
Magnesium	2/2	1,000 - 1,000	49.9* J - 85.8 J	67.9	99.6	49.8	--	--	NA
Manganese	2/2	3 - 3	2.1* J - 3	2.6	8.6	4.3	--	--	NA
Vanadium	2/2	10 - 10	0.835* J - 1.2 J	1	2.2	1.1	--	--	NA
Zinc	1/2	4 - 4	14.6	14.6	ND	ND	--	--	NA

See notes at end of table.

Table 4-8 (Continued)
Surface Water and Sediment Inorganics Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Reporting Limits	Range of Detected Concentrations (*)[2]	Mean of Detected Concentrations[3]	Screening Background Concentration[4]	Maximum Background Concentration	FDEP Class III Fresh Water Quality Standards[5] ($\mu g/\ell$)	AWQC[6] ($\mu g/\ell$)	USEPA SQGs[7]

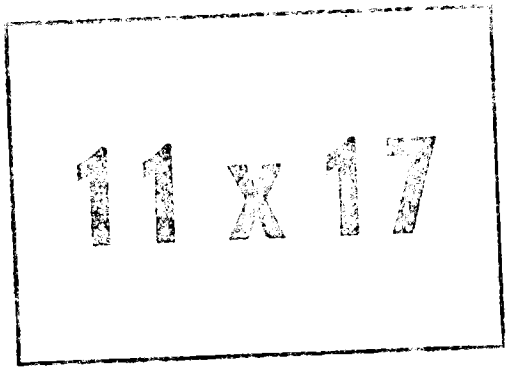
[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
[2] Value indicated by asterisk is the average of a sample and its duplicate.
[3] The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples in which the analyte was not detected.
[4] The background screening value is twice the average of detected concentrations for inorganic analytes in background samples.
[5] Chapter 62-302, Surface Water Quality Standards (Florida Legislature, 1995).
[6] Federal Ambient Water Quality Chronic Criteria (U.S. Environmental Protection Agency [USEPA], 1991g; 1988a).
[7] USEPA (1988c) mean Sediment Quality Criteria (SQCs) values at 1 percent total organic carbon (TOC) (used instead of site-specific TOC of 0.34 percent). All values represent Final Residue Values (FRVs).
[8] Based on pH of 6.5-9 (USEPA, 1988).

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: CF3SW1/SD1 and RCSW3/SD3
Duplicate samples include: CF3SW1D/SD1D

mg/kg = milligrams per kilograms.
$\mu g/l$ - micrograms per liter.
NA = not applicable.
J = indicates chemical identified by chemist but quantity was estimated.
▒▒ = these chemicals represent human health chemicals of potential concern (HHCPCs).

Figure 4-14 Confirmatory Surface Water and Sediment Inorganics



1995a): barium, copper, lead, and zinc. Barium, copper, and zinc were not detected in the upstream background sample CF-SD-2.

Barium (6.9 J mg/kg), copper (3.4 J mg/kg) and zinc (14.6 mg/kg) were detected in only one sediment sample, RC-SD-3.

Lead was detected in both sediment sample locations and the upstream background sample. The upstream background screening lead concentration of 5.8 mg/kg, was only exceeded by one sample, RC-SD-3, at a concentration of 6.2 mg/kg.

Barium and lead were detected in surface soil samples collected from the helicopter crash site area. However, the surface soil concentrations of these inorganics did not exceed the background soil concentrations and do not appear to be the source of these analytes detected in the sediment samples. Copper was also detected in surface soil samples at the helicopter crash site but at concentrations lower than what was detected in sediment.

4.2.4.3 Summary of Analytical Results for Surface Water and Sediment

Summary of Organics in Surface Water. Four organic compounds were detected in the surface water samples collected for OU 8: the VOCs, bromodichloromethane, dibromochloromethane, methylene chloride, and chloroform. With the exception of methylene chloride, these VOCs are most likely from the wastewater treatment plant effluent which enters Rowell Creek upstream of these sampling locations near the base of the Lake Fretwell dam. These VOCs are common by-products of the chlorination process used during the treatment of wastewater.

Summary of Organics in Sediment. Three organic compounds were detected in the sediment samples collected for OU 8: one VOC, 2-butanone, and two SVOCs (di-n-butylphthalate, and bis(2-ethylhexyl)phthalate). Due to their absence in nearby surface soil samples and shallow groundwater samples on the west side of Rowell Creek, the presence of these compounds is not linked to the disposal pit area.

Summary of Inorganics in Surface Water. Based on the results of inorganic analyses of the two surface water samples, five inorganic CPCs were identified by the BRA: aluminum, antimony, iron, lead, and silver. Of these five inorganics, only iron was detected in the upstream background sample CF-SD-2. Iron and aluminum were detected in the shallow monitoring well CEF-3-31S, which is located adjacent to Rowell Creek, but at concentrations lower than those observed in surface water. Antimony, lead and silver were not detected in monitoring well CEF-3-31S.

Summary of Inorganics in Sediment. Based on the inorganic analytical results of the two sediment samples, four inorganics identified as CPCs in the risk assessment were detected: barium, copper, lead, and zinc. Barium, copper, and zinc were not detected in the upstream background sample CF-SD-2.

Lead was detected in both sediment sample locations and the upstream background sample. The upstream background screening lead concentration of 5.8 mg/kg is nearly the same as at RC-SD-3 (6.2 mg/kg).

Barium and lead were detected in surface soil samples collected from the helicopter crash site area. However, the surface soil concentrations of these inorganics did not exceed the background soil concentrations and do not appear

to be the source of these analytes detected in the sediment samples. Copper was also detected in surface soil samples at the helicopter crash site but at concentrations lower than what was detected in sediment.

5.0 CONTAMINANT FATE AND TRANSPORT

This chapter discusses the fate and transport of contaminants detected in the environment at OU 8, Site 3. Fate, in the context of this chapter, refers to the ultimate disposition of a given contaminant following its release into the environment. Transport refers to the mechanism(s) by which a given contaminant released into the environment will arrive at its fate.

Several organic and inorganic compounds were detected in the four media sampled at OU 8 (soil, sediment, surface water, and groundwater). Because of the number of contaminants detected and the number of fate and transport scenarios possible for those contaminants in the four media, this discussion will focus only on those compounds and metals that may pose significant risk to human health or the environment, as identified by the BRA (ABB-ES, 1995a), and summarized in Chapter 6.0.

The following discussion of contaminant fate and transport is divided into two sections. Section 5.1 discusses potential routes of contaminant migration in the media evaluated at OU 8. The site-specific persistence, fate, and transport of those compounds and elements found to pose a potential risk to human health or the environment are discussed in Section 5.2.

5.1 POTENTIAL ROUTES OF MIGRATION. Several routes of migration are possible for OU 8 contaminants through the various media: air, soil, surface water, and groundwater. These routes are summarized below.

5.1.1 Air Organic compounds, metals, and metal complexes that exist as gases, are volatile at surface temperature and pressure, or are airborne particulates may migrate in the air from the OU 8 source area. The extent to which gaseous constituents and particulate material remain airborne is a function of their density, the level of excitation of the air (wind and temperature), and fate processes acting on the constituent. Particulate material may contain (or consist of) organic compounds and elements that would otherwise not be present in air. Prevailing wind directions are depicted in the wind rose in Figure 3-2.

5.1.2 Soil Organic and inorganic compounds are present in soil at OU 8. The primary agents of contaminant migration acting on soil include wind, rain water, running water, and human activity. In the absence of vegetative cover and under dry soil conditions, wind could potentially transport surface soil in the form of particulate material throughout and beyond the installation. Rain water may cause surface soil to migrate either by washing soil particles downward into the subsurface or by carrying soil particles overland to the nearest surface water body, either Lake Fretwell or Rowell Creek. Contaminated soil can also be transported through human activity. Other than the former disposal pit operations, human activity appears to be limited at OU 8. It is located near the installation boundary where human activity is limited to forestry, security patrol, and an occasional jogger.

5.1.3 Surface Water Organic and inorganic compounds can migrate from the OU 8 disposal pit area via surface water runoff to surface water and be further transported downstream in Rowell Creek. The primary mechanism for migration of contaminants once they reach surface water are dissolution and suspension.

Several organic compounds and metals are soluble in water and will remain in the aqueous phase until fate mechanisms cause removal or degradation. Other organic compounds and elements are not soluble in water but may be transported by surface water via suspension of solids (e.g., sediment) to which the compounds are attached. The amount of suspended particulate material in surface water is largely a function of the water's energy and, as that energy decreases, suspended material will settle and become part of the soil or sediment. Colloidal material may remain in suspension (by electrochemical forces) even in water of very low energy (e.g., standing water). It is interpreted that some surface water transport of disposal pit contaminants may have occurred (300 to 500 ft to CF3SS9) along the northern drainage ditch of the access road.

5.1.4 Sediment Organic and inorganic compounds from OU 8 can migrate with sediment carried by surface water runoff to Lake Fretwell and Rowell Creek east of OU 8 and then further downstream in Rowell Creek. Erosion, biological action, and human action are the primary transport mechanisms for sediment. Sediment transport in surface water is greatest under high stream flow conditions. Sediment transport at OU 8 has not been observed to be significant contaminant transport mechanism.

5.1.5 Groundwater Groundwater flow is the major migration mechanism for transporting dissolved constituents from the disposal pit area at OU 8. Organic compounds and elements at OU 8 are believed to have reached groundwater by the placement of wastes into the disposal pit. Contaminated groundwater is interpreted to be currently discharging to Rowell Creek but, due to the expected dilution, has not been detected in surface water or sediment samples.

5.2 CONTAMINANT PERSISTENCE AND FATE. The discussion of contaminant persistence and fate in the environment is divided into three subsections. Subsection 5.2.1 discusses the processes that control the persistence and fate of organic compounds and elements in the environment. Subsection 5.2.2 discusses the primary persistence and fate characteristics of the constituents detected at OU 8. Subsection 5.2.3 discusses contaminant transport.

5.2.1 Processes The persistence and fate of chemical constituents in the environment depends on various chemical, physical, and biological processes. The predominant processes affecting the environmental persistence and fate of chemical constituents include solubility, photolysis, volatilization, hydrolysis, oxidation, chemical speciation, complexation, precipitation/co-precipitation, cationic exchange, sorption, bioaccumulation, and biodegradation-biotransformation. The more important and prevalent of these processes, with regard to the risk-driving chemicals identified at OU 8, are described below.

5.2.2 Persistence and Fate of OU 8 Specific Contaminants The human health risk assessment (summarized in Chapter 6.0) has only identified risk to human health at OU 8 from the exposure to contaminated groundwater (if it is used in the future as a potable water supply). The organic and inorganic constituents which exceed human health risk criteria (cancer risk of 10^{-6} and noncancer risk factor greater than 0.1) are summarized below.

- Groundwater: Benzene, 1,1-DCA, 1,1-DCE, 1,2-DCE, TCE, 1,2-DCB, 1,4-DCB, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, 4-methylphenol, naphthalene, Aroclor-1248, arsenic, chromium, manganese, and vanadium.

Of these organic and inorganic compounds, 1,1-DCE, 1,2-DCE, TCE, 1,2-DCB, 1,4-DCB and arsenic pose the most significant risk and will be the focus of the discussion in this subsection.

The only potential risk identified by the ecological risk assessment was the exposure to undiluted groundwater by aquatic organisms. Considering the dilution of groundwater upon discharge into Rowell Creek, ecological receptors are not likely to be at risk.

5.2.2.1 VOCs As indicated above, TCE, 1,2-DCE, and 1,1-DCE were identified in groundwater as potentially posing a risk to human health and the environment. TCE can be biologically transformed under aerobic (with oxygen) and anaerobic (without oxygen) conditions. Because oxygen is generally limited, natural (unaided) biotransformation of TCE in groundwater most often occurs under anaerobic conditions. Anaerobic biodegradation of chlorinated VOCs is a reductive dechlorination process in which anaerobic bacteria utilize a chlorinated VOC molecule as an electron acceptor (respiration) when degrading organic carbon present in the soil and groundwater system. The anaerobic biotransformation of TCE results in less-chlorinated transformation products such as cis-1,2-dichloroethene (cis-DCE), vinyl chloride, and ethylene. The presence of such transformation products in groundwater indicates that anaerobic biodegradation of TCE has occurred.

At OU 8, cis-DCE was detected throughout the groundwater contaminant plume from the disposal pit area to Rowell Creek. The presence of cis-DCE indicates biodegradation of TCE has occurred. Based on the comparison of the TCE and cis-DCE concentrations, it appears that the biodegradation of TCE is most prevalent at the disposal pit area because the cis-DCE concentration was higher than the TCE concentration. Cis-DCE was detected at 1900 $\mu g/\ell$ and TCE was detected at 1700 $\mu g/\ell$ in the source area monitoring well CEF-3-13S. Approximately 700 feet downgradient in well CEF-3-28S, the TCE concentration (480 $\mu g/\ell$) is more than 4 times that of cis-DCE (110 $\mu g/\ell$). The more active biodegradation of TCE at the disposal pit area is most likely due to the existence of more favorable environmental or microbial conditions (e.g., nutrients, organic carbon, oxidation-reduction potential) than are found downgradient in the vicinity of well CEF-3-28S.

Although biodegradation of TCE is occurring at OU 8, the transformation process is not going to vinyl chloride. Chemical data collected to assist in the evaluation of unaided biodegradation of TCE indicated that vinyl chloride was not being formed because the subsurface conditions were not favorable. The conditions that appeared to be limiting the biological process included: low pH (4.5-5.5); low levels of nitrogen, phosphate and sulfate; and/or low levels of an electron donor (carbon source).

5.2.2.2 SVOCs 1,2-DCB and 1,4-DCB, the most significant SVOC contributors to human health risk, were both found in groundwater at OU 8. 1,4-DCB was also detected in subsurface soil at the disposal pit area.

1,2-DCB and 1,4-DCB have relatively low vapor pressure (1,2-DCB: 1.28 mm at 25 degrees celsius [°C], 1,4-DCB: 0.7 mm at 25 °C [Montgomery, 1991]), and low aqueous solubility (1,2-DCB: 100 mg/ℓ at 20 °C, 1,4-DCB: 49 mg/ℓ at 22 °C [Montgomery, 1991]). Based on these physical characteristics, sorption, bioaccumulation, and volatilization are expected to be competing processes. These

compounds also moderately biodegrade, with half-lives of 1 to 6 months in soil and surface water and 2 to 12 months in groundwater. The fate of 1,2-DCB and 1,4-DCB in the aquatic environment depends on the rate at which each of these processes occur (USEPA, 1979).

5.2.2.3 **Inorganics** Arsenic was identified as potentially posing a risk to human health in the groundwater at Site 3.

Arsenic has two stable forms in solution: As^{5+} (arsenate) and As^{3+} (arsenite). In groundwater with pH ranging from 3 to 7, the monovalent arsenate anion $H_2AsO_4^-$ is the dominant form. Upon entering surface water, via groundwater discharge, arsenic may partition to sediments from solution by hydrous iron oxide adsorption and/or co-precipitation (or a combination of both) with sulfides in the sediment. The oxidation-reduction potential (Eh) and pH conditions of the surface water and sediment govern the effectiveness of these mechanisms (adsorption and co-precipitation) for arsenic. These mechanisms appear to be the major inorganic factors controlling arsenic concentrations in surface water (Hem, 1989). Arsenic becomes more soluble as reducing conditions become stronger and pH becomes more acidic.

5.2.3 **Transport of Contaminants** This section presents a discussion of the anticipated migration of contaminants at OU 8 in soil, groundwater, and in surface water upon groundwater discharge into Rowell Creek.

5.2.3.1 **Soil** Contaminants in groundwater that potentially pose a risk to human health that were also detected in the disposal pit source area vadose zone soil included TCE, 1,4-DCB, and benzo(b)fluoranthene. These contaminants are a potential source of future groundwater contamination through leaching by infiltrating precipitation. The amount of a particular contaminant that is leached from the vadose zone soil is a function of the sorptive properties of the compound and the presence of organic material. The concentration of a contaminant in the leachate can be estimated (using Summers model [USEPA, 1989b]) if the concentration of the contaminant in the vadose zone and the total organic carbon concentrations are known. Once the leachate concentration is calculated, the concentration of the contaminant in groundwater after mixing can be estimated. The Summers model was run (i.e., used to estimate concentrations) for TCE, 1,4-DCB, and benzo(b)fluoranthene. The results are discussed in the following subsection and the calculations are found in Appendix K.

5.2.3.2 **Groundwater** The primary route for contaminant migration in groundwater from OU 8 would be through the surficial aquifer from the location of the former disposal pit to discharge into Rowell Creek, 1,400 feet east of the pit.

As mentioned in section 5.2.2, contaminants associated with human health and ecological risk include VOCs: TCE and its transformation products, 1,2-DCE, and 1,1-DCE; SVOCs: 1,2-DCB and 1,4-DCB; and one inorganic: arsenic. Of these, only TCE, 1,2-DCE, 1,1-DCE, and 1,2-DCB and 1,4-DCB appear to have an association with the disposal pit area. Based on groundwater flow paths and the relatively low concentrations of arsenic in the shallow wells at the source area, it is not likely that the detections of arsenic in the surficial aquifer, downgradient of the disposal pit, are source-related.

The chlorinated VOCs are the most prevalent organic contaminants detected at OU 8. TCE was one of the most widespread contaminants detected at OU 8. Considering

this, the following discussion will first focus on the migration of TCE in groundwater. When appropriate, other groundwater contaminants for which a risk has been identified will be addressed.

The dissolved contaminants in the shallow groundwater (UZS) appear to have migrated to and are discharging into Rowell Creek approximately 1,400 feet east of the source area.

The discussion of contaminant migration in groundwater at OU 8 will address the following items:

1. the estimated duration of leaching and concentration of TCE, benzo(b)fluoranthene, and 1,4-DCB from vadose zone soil to the groundwater;

2. the transport and concentration of TCE along the groundwater flow path to Rowell Creek; and

3. the estimated dilution of the TCE plume upon entering and mixing with surface water in Rowell Creek.

The calculations and documentation to support this discussion are presented in Appendix K.

Leaching of TCE, benzo(b)fluoranthene and 1,4-DCB from Vadose Zone Soil. The concentration and duration of the leaching of TCE, benzo(b)fluoranthene and 1,4-DCB from vadose zone soil to groundwater was estimated and is discussed in the following paragraphs.

The estimated volume of TCE contaminated vadose zone soil is approximately 24,000 ft^3, with an average TCE concentration of 146 J $\mu g/kg$. The soil volume was estimated by multiplying the disposal pit area (8,000 square feet) by a depth of 3 feet (approximate depth to groundwater). The average TCE concentration was estimated using the average of two detections in the disposal pit area vadose zone soil. The contaminated soil volume estimate is expected to be high (i.e., conservative) because there were also several nondetects in the disposal pit area vadose zone soil. Using the Summers model (USEPA, 1989b), TCE in leachate resulting from precipitation infiltrating through these vadose soil would enter and mix with the top 10 feet of the surficial aquifer, and would be diluted to approximately 80 $\mu g/\ell$. Using the USEPA batch model (USEPA, 1988b), it would take approximately 23 years to flush the vadose zone soil to the point that the leachate would be less than the TCE MCL of 5 $\mu g/\ell$ after mixing with the top 10 feet of the surficial aquifer (Appendix K).

The Summers model was also run for 1,4-DCB and benzo(b)fluoranthene, which were both detected in source area vadose zone soil and in groundwater.

1,4-DCB was the most frequently detected SVOC in subsurface soil, was also detected in the shallow source area groundwater, and had the lowest drinking water MCL of the dichlorobenzenes. Using the Summers model, the concentration of 1,4-DCB in the leachate resulting from the infiltration of precipitation through the source area vadose soil (27.3 J $\mu g/kg$) is estimated to be 39 $\mu g/\ell$. This concentration was below the State and Federal drinking water MCL of 75 $\mu g/\ell$ so further flushing calculations were not conducted.

The benzo(b)fluoranthene concentration in the leachate was estimated to be 0.08 $\mu g/\ell$ which was also below the federal drinking water MCL of 0.2 $\mu g/\ell$. Therefore no additional flushing calculations were conducted. Summers model calculations are presented in Appendix K.

TCE Transport and Concentration in Groundwater. The TCE plume has been observed to have migrated approximately 1,400 feet east to Rowell Creek in the 40 years since the waste liquid discharge to the disposal pit began. Based on the seepage velocity of 88 feet per day (from Section 3.6.2.3), it is likely that contaminated groundwater has been discharging to Rowell Creek for some time since it would take groundwater approximately 16 years to travel from the disposal pit to Rowell Creek.

The highest concentration of TCE (1,700 $\mu g/\ell$) in the monitoring wells was in the disposal pit area well CEF-3-13S. Approximately 700 feet downgradient, the TCE concentration in groundwater decreased to a concentration of 480 $\mu g/\ell$ in well CEF-3-28S. Further downgradient (CEF-3-31S), adjacent to Rowell Creek, the TCE concentration was detected at one order of magnitude lower (48 $\mu g/\ell$) than in well CEF-3-28S. This pattern of decreasing concentration from the source area to Rowell Creek was also observed for 1,1 DCE, 1,1 DCA, and 1,2 DCE and may represent the cumulative effect of fate and transport mechanisms.

Using an analytical dispersion equation solution (Appendix K), it is estimated that concentrations of TCE greater than 5 $\mu g/\ell$ would be flushed by the natural flow of groundwater from the surficial aquifer to Rowell Creek in approximately 35 years. This estimate assumes a retardation factor of 2.3 for TCE. As described in item 1 above, in approximately 23 years the concentration of the TCE leachate from the vadose soil at the disposal pit area is estimated to be less than 5 $\mu g/\ell$ (after mixing with the top 10 feet of the surficial aquifer). By adding the two estimates, it is interpreted that concentrations of TCE in the surficial aquifer at OU 8 will be less than 5 $\mu g/\ell$ in approximately 58 years.

Although contaminated groundwater may be discharging into Rowell Creek, organic contaminants detected in groundwater have not been detected in surface water samples from locations where the contaminated groundwater would be expected to discharge into Rowell Creek based on piezometric conditions. The absence of contaminants in surface water and sediment samples is most likely due to dilution of the discharging groundwater by Rowell Creek. Dilution of groundwater discharging into Rowell Creek is discussed in a following section.

Plume Dilution in Surface Water Some dilution of the contaminant plume concentrations would be expected to occur as it discharges to Rowell Creek. The dilution of groundwater from the contaminant plume by Rowell Creek surface water has been estimated using estimates of the wastewater treatment plant discharge, groundwater discharge to Rowell Creek, and USGS discharge measurements at the Lake Fretwell dam, the OU 1 tributary (approximately 1,800 feet downstream), and the Perimeter Road bridge (approximately 3,400 feet downstream).

The total contribution to surface water by groundwater discharge was estimated for the Rowell Creek reach between the Lake Fretwell dam and Perimeter Road bridge. The OU 8 contaminant plume discharge was estimated as a fraction of the total surface water flowrate. The dilution factor was calculated for the OU 8 contaminant plume discharge zone (see figure in Appendix K). The dilution factor at this location was estimated to be 0.008 (99.2 percent diluted or diluted 133

times). This estimate was developed using monthly discharge averages and was based on the lowest observed monthly average (calculations that can be found in Appendix K).

6.0 SUMMARY OF BASELINE RISK ASSESSMENT

A baseline risk assessment (BRA) was completed at OU 8 to characterize the risks associated with exposure to identified contaminants for human health and ecological receptors (ABB-ES, 1995a). This section presents a summary of the human health and ecological BRAs for OU 8. Although the BRA is presented as a separate document, it is summarized here to complete the RI and to provide the rationale for developing remedial action objectives and alternatives as part of the FS.

6.1 APPROACH TO THE BASELINE RISK ASSESSMENT. The BRA was completed in accordance with the USEPA's human health risk assessment guidance for Superfund (USEPA, 1989c; 1989d; 1989e; 1991c; 1991d; 1992a), Region IV Risk Assessment Guidance (USEPA, 1991e), Ecological Assessment of Hazardous Waste Sites: A Field and Laboratory Reference (USEPA, 1989a); and Ecological Assessment of Superfund Sites: An Overview (USEPA, 1991f). Recent risk assessment guidance including the USEPA "Eco Update" bulletins (USEPA, 1991b; 1992g; 1992c) and recent publications (Maughan 1993; Suter, 1993) were also consulted.

The BRA for OU 8 consisted of three primary components: (1) data evaluation, (2) human health risk assessment, and (3) ecological assessment. The purpose of the BRA was to evaluate whether or not contamination present at OU 8 poses unacceptable risks to human health and/or environmental receptors, in the absence of any remedial action.

6.2 DATA EVALUATION. The purpose of the data evaluation process was to identify the environmental data suitable for use in the BRA in accordance with the guidance in Section 6.1. The data from OU 8 were evaluated to determine which data were of sufficient quality for use in a quantitative risk assessment. Data from the RI were first compiled and sorted by environmental medium (i.e., surface and subsurface soil, groundwater, surface water, and sediment). Then, based on results of the data validation, overall quality of the data was reviewed to determine which data were of sufficient quality for use in a quantitative risk assessment.

In the human health and ecological risk assessments (ABB-ES, 1995a), the analytical data were used to select chemicals of potential concern (CPCs). Data collected from previous investigations were evaluated qualitatively.

6.3 HUMAN HEALTH RISK EVALUATION. The purpose of the human health risk assessment (HHRA) was to characterize the risks associated with potential exposures to site-related contaminants at OU 8 for human health receptors. Five components for the HHRA were completed: (1) data evaluation (including selection of human health chemicals of potential concern), (2) exposure assessment, (3) toxicity assessment, and (4) risk characterization (including an uncertainty analysis). In addition, a review of available criteria is presented.

6.3.1 Selection of Chemicals of Potential Concern Generally, chemicals for which data of sufficient quality are available and which are potentially site related are defined as HHCPCs. These contaminants are typically a subset of all

inorganics and organics detected in the various media at the site and are selected based on concentration; physical, chemical, and toxicological characteristics; frequency of detection (normally greater than 5 percent of the total sample set); comparison of detected values to background or baseline concentrations and associated blanks; and comparison to USEPA Region III risk-based concentrations and State of Florida criteria (USEPA, 1993; USEPA, 1994a; FDEP, 1994a; 1994b). The HHCPCs for OU 8 for each medium (surface soil, surface water, sediment, and groundwater) are presented in Table 6-1.

6.3.2 **Exposure Assessment** OU 8 was evaluated to identify actual or hypothetical populations that could contact site-related contaminants and the pathways through which exposure could occur. There are five potential sources of exposure associated with OU 8: surface soil, subsurface soil, surface water, sediment, and groundwater. Based on current site uses, surface soil, surface water, and sediment are the only media that are appropriate for evaluation because there is no current exposure to subsurface soil or groundwater. Under future land use, all the media were evaluated in the assessment based on the assumptions that subsurface soil may be exposed for contact and that groundwater may be used as an alternate potable water supply at OU 8.

As a result of the exposure assessment, the following exposure scenarios were identified as being possible at OU 8 under current use conditions: (1) incidental ingestion, direct contact, and inhalation of fugitive dust associated with surface soil by a child and adult transient and an adult site worker; and (2) incidental ingestion and direct contact with surface water or sediment by a child and adult trespasser. Under future land use, the following exposure scenarios were identified as being possible at Site 3: (1) incidental ingestion, direct contact, and inhalation of fugitive dust associated with surface soil by an adult and child resident, an adult occupational worker, and an adult excavation worker; (2) incidental ingestion, direct contact, and inhalation of fugitive dust associated with subsurface soil by an adult excavation worker; (3) domestic use of groundwater by an adult resident; and (4) incidental ingestion and dermal contact with surface water and sediment by an adult and child resident wader.

Under current land use, fish consumption was not evaluated in the risk assessment because there are no humans that reside at the site. Fishing is not known to occur in Rowell Creek in the area adjacent to OU 8 under current land use. The depth of Rowell Creek is between 1 to 2 feet in the area of OU 8. In the future, fish consumption will not be evaluated because there are no lipophilic compounds detected in surface water and lipophilic compounds are detected at low concentrations in sediment.

Generally, exposure scenarios associated with future land use are difficult to predict. Residential land use was selected as a future land use scenario at Site 3 based on USEPA Region IV guidance (USEPA, 1991e). The inclusion of a residential land use scenario at OU 8 is intended to represent a worst case scenario. Future residential land use at or near OU 8 is possible. Because NAS Cecil Field is scheduled for closure in the late 1990's as part of Base Realignment and Closure (BRAC), land use near OU 8 may be altered from its current use. Planned continued use as an airfield, possibly as a global airfield, would likely continue nonresidential use of OU 8.

Table 6-1
Human Health Chemicals of Potential Concern

Baseline Risk Assessment
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Environmental Medium	Human Health Chemicals of Potential Concern [1]
Surface Soil	**Inorganics**: manganese **Organics**: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluorantnene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-dc)pyrene, endrin ketone, and TRPH
Subsurface Soil	**Inorganics**: beryllium and manganese **Organics**: benzo(g,h,i)perylene and TRPH
Surface Water	**Inorganics**: antimony **Organics**: dibromochloromethane, bromodichloromethane, and chloroform
Sediment	**Inorganics**: none **Organics**: Aroclor-1254 and endrin ketone
Surficial Aquifer	**Inorganic**: aluminum, arsenic, chromium, iron, manganese, and vanadium **Organics**: 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethene (total), benzene, trichloroethene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2-methylnaphthalene, 4-methylphenol, benzo(b)fluoranthene, naphthalene, bis(2-ethylhexyl)phthalate, Aroclor-1248, and TRPH.
Intermediate Aquifer	**Inorganics**: arsenic and manganese **Organic**: none

[1] HHCPCs were selected for each medium in Tables 4-4 through 4-9 of the Baseline Risk Assessment (ABB-ES, 1995).

Notes: HHCPC = human health chemicals of potential concern.
TRPH = total recoverable petroleum hydrocarbons

6.3.3 **Toxicity Assessment** A toxicity assessment was conducted to identify the relevant oral, dermal, and inhalation toxicity values for carcinogenic and non-carcinogenic effects of OU 8 HHCPCs. These values were identified from either the USEPA's Integrated Risk Information System database (USEPA, 1994b) or USEPA's Health Effects Assessment Summary Tables (USEPA, 1994c).

6.3.4 **Risk Characterization** Quantitative estimates of both carcinogenic and non-carcinogenic risks were calculated for each HHCPC and each complete exposure scenario selected for evaluation in the exposure assessment. Carcinogenic risks associated with exposure to individual chemicals were estimated by multiplying the estimated chemical intake for each carcinogen (in units of milligram of chemical per kilogram of body weight each day [mg/kg-day]) by its USEPA cancer slope factor (CSF) (in units of [mg/kg-day^{-1}]). The result is a chemical-specific excess lifetime cancer risk (ELCR). This value represents the probability of developing cancer over the course of a 70-year lifetime as a result of the assumed exposure to site chemicals. The term excess refers to the increase in risk of cancer associated with exposure to site-related chemicals that is above and beyond baseline cancer risks. The average cancer burden in the United States in 1993 was one in three for women and one in two for men (American Cancer Society, 1994).

Within each exposure pathway, cancer risks associated with multiple carcinogenic compounds are estimated by summing the chemical-specific risks to yield a pathway-specific ELCR. USEPA's guidelines state that the acceptable total incremental carcinogenic risk for an individual resulting from exposure at a hazardous waste site is in a range of 1 in 1,000,000 (10^{-6}) to 1 in 10,000 (10^{-4}) (USEPA, 1990).

Noncarcinogenic risk estimates are calculated by dividing estimated chemical intakes (in units of mg/kg-day) by the appropriate reference dose (RfD) developed by USEPA (in units of mg/kg-day). The resulting ratio is called the hazard quotient (HQ). The HQs for individual compounds within an exposure pathway were summed resulting in a hazard index (HI) for that pathway. An HI equal to 1 represents concentrations and levels of exposure that are generally considered to be without deleterious effects for a lifetime exposure, even for sensitive individuals. As the HI increases above 1, the risk of adverse effects also increases if the toxic endpoint (organic or bodily function) is the same and the effects are additive.

6.3.4.1 Risk Characterization for Human Health at OU 8 Health risks associated with current land use are not of concern. Cancer risk estimates associated with OU 8 surface soil, subsurface soil, surface water, sediment, and the intermediate aquifer are all below or within the acceptable risk range defined by USEPA (10^{-6} to 10^{-4}). The risk estimate for the surficial aquifer under future land use conditions (adult resident) is 3×10^{-3} which is at a level of concern. The major contaminants contributing cancer risk to the ELCR for the resident is 1,1-dichloroethene (ELCR = 3×10^{-3}), trichloroethene (ELCR = 2×10^{-4}), 1,4-dichlorobenzene (ELCR = 2×10^{-4}), and arsenic (ELCR = 2×10^{-4}).

Noncancer risk estimates associated with OU 8 surface soil, subsurface soil, surface water, sediment, and the intermediate aquifer are all equal to or less than an HI of 1. The noncancer risk estimate (HI) for the surficial aquifer under future land use conditions (adult resident) is 20. Major contributors to this HI are trichloroethene (HQ=6.7), 1,2-dichloroethene (total) (HQ=5.8), 1,2-dichlorobenzene (HQ=3), and 1,1-dichlorothene (HQ=1.1).

6.3.5 Comparison to Available Criteria Available criteria and guidance for groundwater (USEPA, 1994d; FDEP, 1994a), surface soil (FDEP, 1994b), and subsurface soil (FDEP, 1994b) were considered in the HHRA for OU 8 (Appendix O; Tables O-1 through O-5). The maximum detected concentrations for each chemical detected in the OU 8 surficial aquifer, intermediate aquifer, surface soil, and subsurface soil were compared to the available criteria as a part of the BRA (ABB-ES, 1995a).

Groundwater. In the surficial aquifer, the maximum detected concentration of 1,1,1-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethene (total), benzene, trichloroethene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 4-methylphenol, benzo(b)fluoranthene, naphthalene, bis(2-ethylhexyl)phthalate, Aroclor-1248, aluminum, iron, and manganese exceeded the respective Federal MCL, Florida Standard, or Florida Guidance value (Table O-1). Each of these chemicals was retained as an HHCPC in the surficial aquifer because it was detected at a concentration that exceeded background (upgradient) or risk-based screening concentrations.

In the intermediate aquifer (Table O-2), aluminum exceeded the Federal MCL and the Florida Guidance Concentration. However, this chemical was not retained as an HHCPC because it was detected at a concentration less than the associated risk-based screening concentration.

Soil. The concentration of benzo(a)pyrene detected in Site 3 surface soil exceeded the available FDEP guidance concentrations for direct contact and inhalation exposures (Table O-3).

In subsurface soil (Table O-4), the concentrations of contaminants detected at Site 3 subsurface soil did not exceed the FDEP guidance concentration for the general worker. The maximum concentrations of methylene chloride, trichloroethene, and xylenes (total) exceed their available FDEP guidance concentrations for leaching to groundwater. This comparison was conducted because subsurface soil may be contributing to the contamination in the surficial aquifer. It should be noted that methylene chloride, with a frequency of detection (FOD) of 3 in 37 samples, is a common laboratory contaminant.

TRPH. TRPH data was collected in surface and subsurface soil, groundwater, surface water, and sediments at Site 3. TRPH was not detected in surface water and sediment samples. The maximum TRPH value for surface soil and subsurface soil exceeded the available Florida guidance value of 50 mg/kg developed for thermally treated soil contaminated with TRPH (Florida Legislature, 1992)(Table O-5).

6.3.6 Summary of Human Health Risk Assessment The purpose of the HHRA at OU 8 was to characterize the risks associated with the potential exposures to site-related contaminants. Potential health risks were evaluated under current and assumed future land use conditions for a subset of contaminants detected in surface soil, subsurface soil, surface water, sediment, and groundwater (surficial and intermediate aquifers) associated with Site 3 (Table 6-2). The chemicals chosen were selected because they are the most likely chemicals to pose risks of concern to human receptors.

Current Land Use. All cancer (Figure 6-1) and noncancer risks (Figure 6-2) for current land use are consistent with USEPA Superfund guidelines, established in the NCP, that indicate that acceptable exposure levels are associated with an

Table 6-2
Human Health Risk Summary

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Medium	Risks Above USEPA Risk Range? [1]		Concentrations Above Florida Guidance Criteria? [2]
	Current Land Use [3]	Future Land Use [4]	
Surface Soil	No	No	No
Subsurface Soil	No	No	Yes [5]
Surface Water	No	No	NA
Sediment	No	No	NA
Surficial Aquifer	NA	Yes	Yes [6]
Intermediate Aquifer	NA	No	Yes [7]

[1] The U.S. Environmental Protection Agency (USEPA) regulations, established in the National Contingency Plan, indicate that the total lifetime cancer risk due to exposure to the HHCPCs at a site, by each complete exposure pathway, should not exceed a range of 1 in 1,000,000 ($1x10^{-6}$) to 1 in 10,000 ($1x10^{-4}$) (USEPA, 1990) or a hazard index of 1.

[2] Florida Soil Cleanup Goals for Military Sites in Florida are identified in the Florida Department of Environmental Protection (FDEP) memorandum dated July 5, 1994 (FDEP, 1994b). Florida Guidance Concentrations are taken from Chapter 6 (Guidance Concentrations Index) of the FDEP Groundwater Guidance Concentrations issued in June 1994 (FDEP, 1994a). Appendix O provides a comparison of each medium with available criteria.

[3] Current land uses evaluated in this report include nonresidential exposures with no current use of groundwater.

[4] Potential future land uses evaluated in this report include residential exposures with the use of groundwater as drinking water.

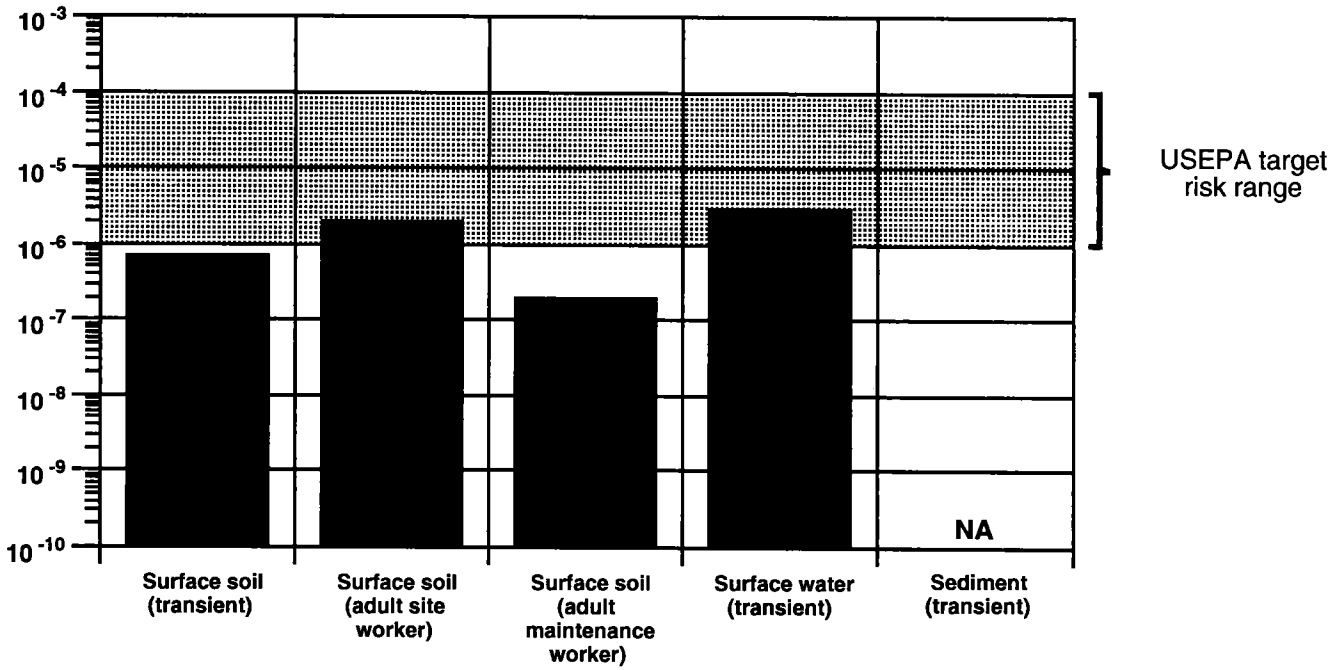
[5] In subsurface soil, the maximum concentrations of methylene chloride, trichloroethene, xylenes (total) exceed their available Florida guidance concentrations for leaching to groundwater (Appendix O, Table O-4).

[6] In the surficial aquifer, the maximum detected concentration of 1,1,1-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethene (total), benzene, trichloroethene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 4-methylphenol, naphthalene, Aroclor-1248, aluminum, iron, and manganese exceeded the respective Florida guidance concentration (Appendix O, O-1)).

[7] In the intermediate aquifer, the maximum concentration of aluminum exceeded their respective Florida guidance concentration (Appendix O, O-2).

Notes: USEPA = U.S. Environmental Protection Agency.
NA = not applicable.
HHCPC = human health chemical of potential concern.
FDEP = Florida Department of Environmental Protection.

Cancer Risk Summary, Current Land Use



NA = No carcinogens were selected as Human Health Chemicals of Potential Concern in sediment.

FIGURE 6-1

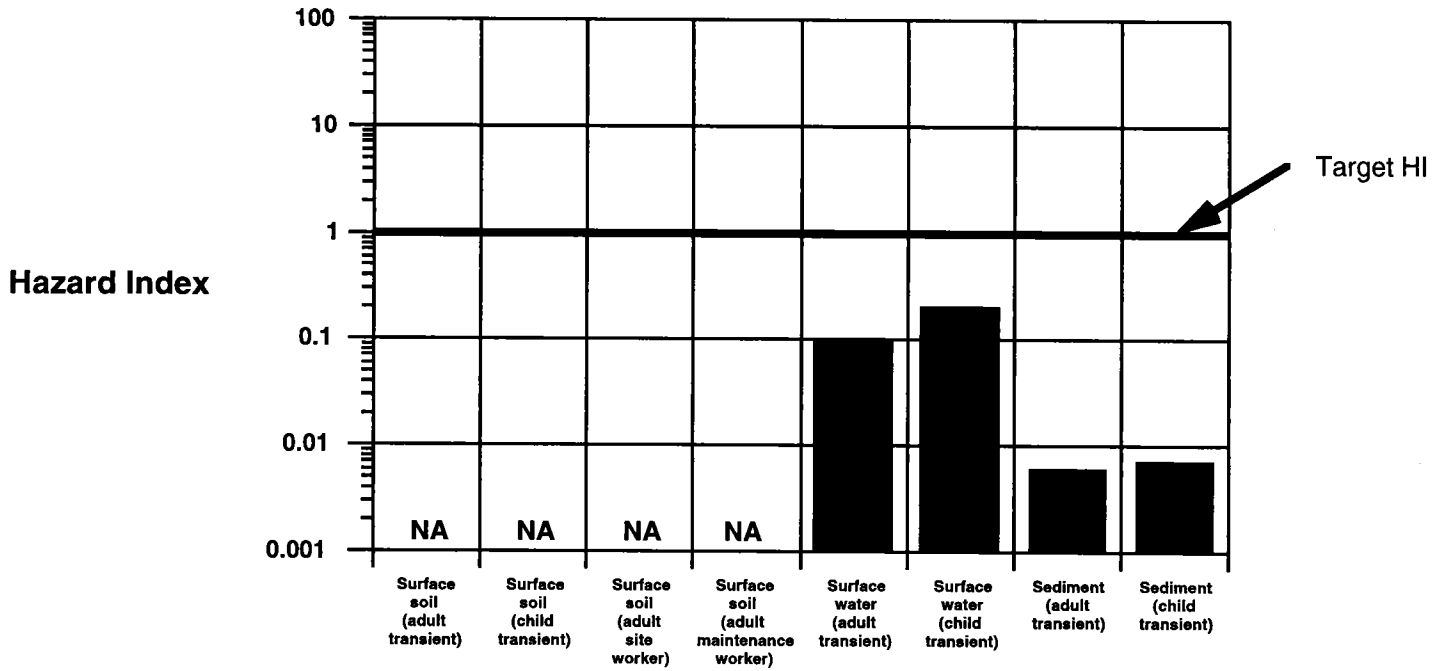
CANCER RISK SUMMARY, CURRENT LAND USE

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-13 950419WEM

Hazard Index Summary, Current Land Use



NA = Harard Index is less than 0.001.

FIGURE 6-2

HAZARD INDEX SUMMARY,
CURRENT LAND USE

REMEDIAL INVESTIGATION,
OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-13 950419WEM

excess lifetime cancer risk due to exposure to the HHCPCs at a site in the range of 1×10^{-6} to 1×10^{-4} (USEPA, 1990) or a hazard index of 1 or less.

Future Land Use. Cancer and noncancer risks in surface soil, subsurface soil, surface water, sediment, and the intermediate aquifer under future residential land use assumptions are consistent with acceptable risks as described by USEPA (USEPA, 1990).

Future use of the surficial aquifer has risks greater than those associated with acceptable exposure levels. The cancer risk estimate for the surficial aquifer under future land use conditions (adult resident) is 3×10^{-3} (Figure 6-3). The major contaminants contributing cancer risk to the ELCR for the resident is 1,1-dichloroethene (ELCR = $3x10^{-3}$), trichloroethene (ELCR = $2x10^{-4}$), 1,4-dichlorobenzene (ELCR = $2x10^{-4}$), and arsenic (ELCR = $2x10^{-4}$). The noncancer risk estimate (HI) for the surficial aquifer (adult resident) is 20 (Figure 6-4). Major contributors to this HI are trichloroethene (HQ = 6.7), 1,2-dichloroethene (HQ = 5.8), 1,2-dichlorobenzene (HQ = 3), and 1,1-dichloroethene (HQ = 1.1).

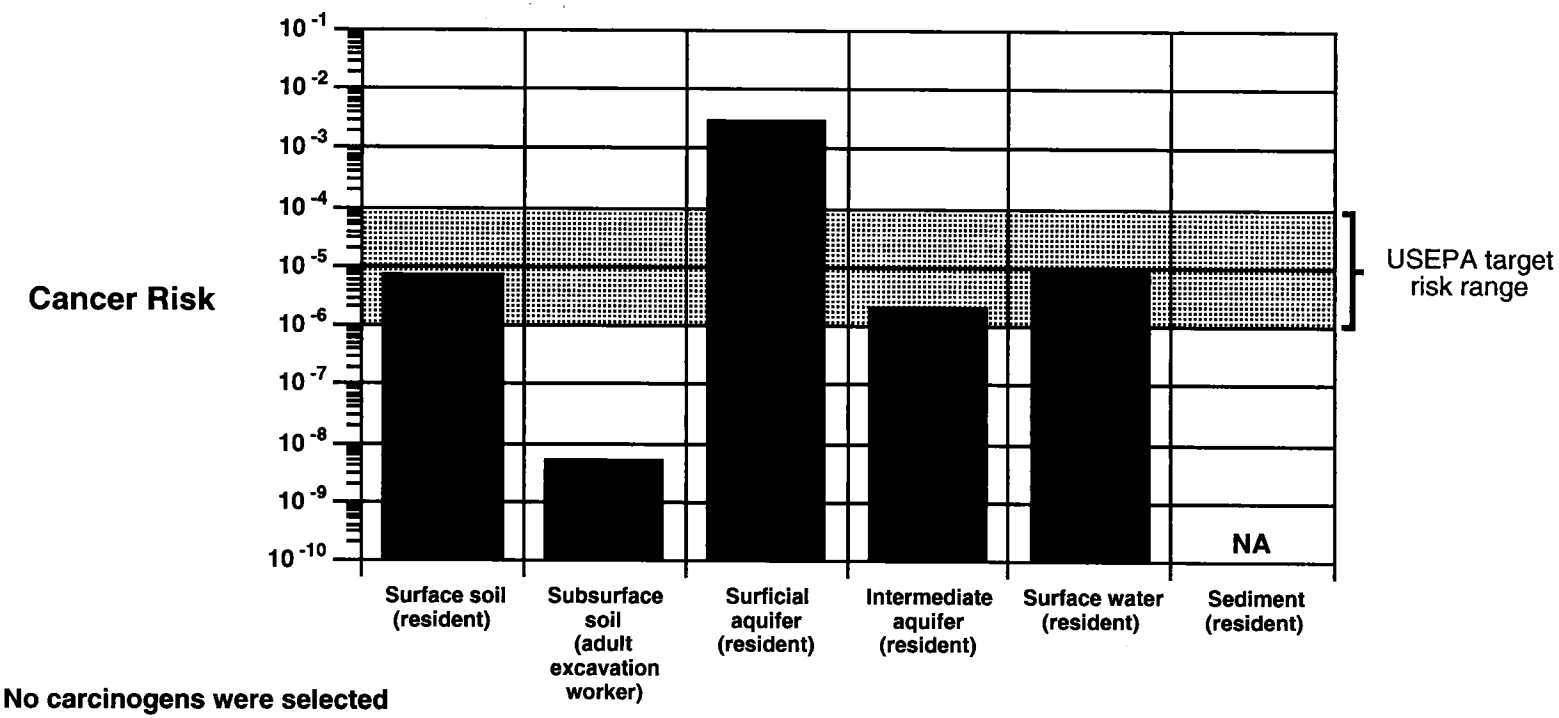
An analysis was conducted to determine if there would be any human health risk associated with discharge of the surficial aquifer to surface water. Maximum groundwater concentrations for each analyte detected was divided by a dilution factor of 133 to obtain the associated surface water concentrations. The derivation of the dilution factor can be found in Appendix K. The surface water concentrations were compared to the USEPA Region III risk-based concentrations for tap water (USEPA, 1994a) and background screening concentrations (Table 0-6). Any analyte which exceeded either of these screening criteria was retained as an HHCPC (Table 0-7). Exposure to surface water by an adult and child resident was evaluated because these are the most conservative scenarios for surface water exposure. The cancer risk associated with a resident (child and adult) was $2x10^{-6}$ (Tables 0-8 and 0-9), which is within the acceptable risk range. The hazard indices associated with the child (HI=0.5) and adult (HI=0.3) were both below the acceptable level of 1 (Tables 0-8 and 0-9). In summary, discharge of the surficial aquifer into the surface water is not associated with any unacceptable human health risk.

In summary, the risk estimates for surface soil, subsurface soil, surface water, sediment, and the intermediate aquifer indicate that human exposure to these media at OU 8, under the conditions evaluated in this assessment, is not associated with unacceptable risk of adverse health effects (cancer or noncancer) (Figures 6-1 through 6-4). Concern over the contamination in the surficial aquifer may be warranted (Figures 6-3 and 6-4), however, because of the risk of adverse health effects (cancer and noncancer) associated with assumed future use of the groundwater as a potable water supply. Use of the surficial aquifer as a drinking water supply at OU 8 may never occur because NAS Cecil Field is served by a community water supply system.

Based on the results of the human health portion of the BRA, including the results of the criteria comparison (Subsection 6.3.5), the development of remedial action strategies may be necessary for the surficial aquifer at OU 8.

6.4 ECOLOGICAL RISK EVALUATION. The purpose of the ecological risk assessment for OU 8 is to assess actual and potential adverse effects to ecological receptors associated with exposure to site related contaminants. First, a problem

Cancer Risk Summary, Future Land Use



NA = No carcinogens were selected as Human Health Chemical of Potential Concern in sediment.

FIGURE 6-3

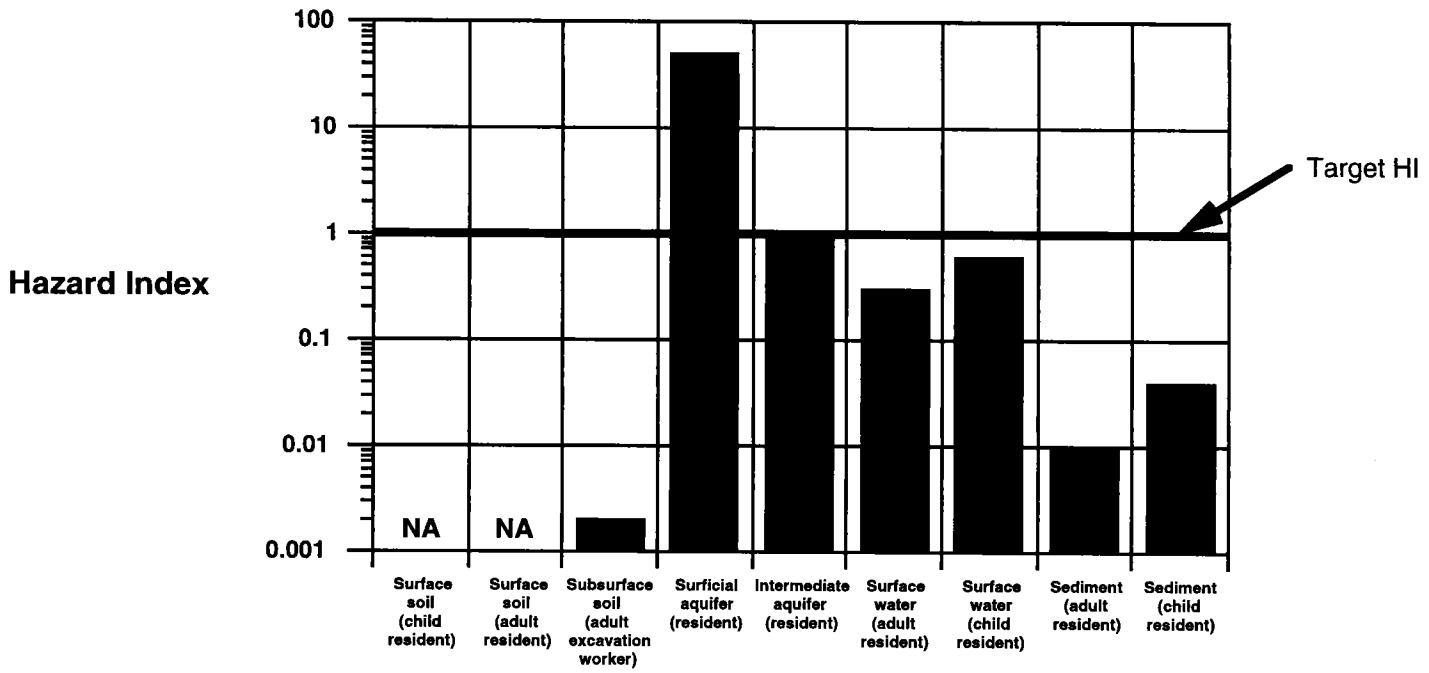
CANCER RISK SUMMARY, FUTURE LAND USE

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-13 950419WEM

Hazard Index Summary, Future Land Use



NA = Harard Index is less than 0.001.

FIGURE 6-4

HAZARD INDEX SUMMARY,
FUTURE LAND USE

REMEDIAL INVESTIGATION,
OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

formulation component identifies ecological receptors and exposure pathways for the receptors. The next steps in the ecological risk assessment are selection of ecological contaminants of potential concern (ECPCs), exposure assessment, description of potential adverse effects to ecological receptors associated with the ECPCs, and finally, characterization of risk posed to representative species.

6.4.1 Problem Formulation Exposure pathways are discussed for four groups of ecological receptors (terrestrial and wetlands wildlife, aquatic receptors, terrestrial plants, and terrestrial invertebrates). The exposure pathway includes a source of contamination, contaminated media (surface soil, food, groundwater, surface water, and sediments), and an exposure route. The OU 8 ecological assessment is based on the pathways for which contaminant exposures are believed to be the highest and most likely to occur and for which there are adequate toxicity data for completion of a risk analysis. For wildlife these pathways include, ingestion of soil, surface water, and sediment. Pathways evaluated for aquatic receptors include direct contact with surface water, sediment, and groundwater (as it discharges to surface water).

6.4.2 Selection of Ecological Chemicals of Potential Concern Ecological chemicals of potential concern (ECPCs) represent the analytes detected in media (surface soil, surface water, sediment, and groundwater) at OU 8 that were considered in the risk assessment process. The ECPCs are identified as being present at OU 8 and representing a potential risk for ecological receptors. ECPCs were selected separately for: (1) surface soil at the grassy OU 8 disposal pit area and the forested OU 8 helicopter crash site, (2) the OU 8 surface water and sediment sampling stations in Rowell Creek, and (3) groundwater from within the OU 8 plume. Undiluted unfiltered, undiluted filtered, and diluted unfiltered groundwater were evaluated separately. For surface water and sediment, ECPCs were selected separately for terrestrial wildlife and aquatic receptors. Table 6-3 provides a summary of the ECPCs selected for OU 8 for each medium and considered in the risk assessment.

6.4.3 Exposure Assessment The exposure pathways evaluated for wildlife at OU 8 include ingestion of soil, surface water, and sediment, and ingestion of food items that have accumulated contaminants from contaminated media. The exposure pathways evaluated for terrestrial plants and invertebrates at OU 8 include direct contact with contamination in surface soil and (for invertebrates) ingestion of soil.

Exposure pathways evaluated for aquatic receptors (including invertebrates, plants, amphibians and fish) in Rowell Creek include direct contact with surface water, sediment, and groundwater (as it discharges to surface water).

6.4.4 Ecological Effects Assessment The ecological effects assessment describes the potential adverse effects associated with the ECPCs to ecological receptors. The methods for identifying and characterizing ecological effects for ECPCs in surface soil, surface water, sediment, and groundwater are described below.

Surface soil toxicity to wildlife species is evaluated based on a model that estimates the amount of contaminant exposure obtained via the diet and incidental ingestion of soil. Estimated doses are compared with reference toxicity doses representing thresholds for both lethal and sublethal effects. Risks for soil

Table 6-3
Ecological Chemicals of Potential Concern (ECPCs)

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Environmental Medium	Ecological Contaminants of Potential Concern [1]
Surface Soil, Disposal Pit	**Inorganics:**Antimony, Barium, Cadmium, Copper, Lead, Manganese, Mercury, Silver, Zinc **Organics:**Acetone, 2-Butanone, Methylene chloride, Xylenes (total), Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Di-n-butylphthalate, bis(2)Ethylhexyl)phthalate, Fluoranthene, Indeno(1,2,3-cd)pyrene, 2-Methylphenol, Aroclor-1254, alpha-Chlordane, gamma-Chlordane, 4,4'-DDT, Dieldrin, Endosulfan II
Surface Soil, Helicopter Crash Site	**Inorganics:**Copper **Organics:**1,1-Dichloroethylene, 1,2-Dichloroethylene, Toluene, Phenol, alpha-BHC, alpha-Chlordane, 4,4'-DDT, Endosulfan II, Endrin ketone
Surface Water	**Inorganics**:Aquatic and wildlife receptors: Aluminum Wildlife receptors only: Antimony, Iron, Lead **Organics:**Aquatic and wildlife receptors: Bromodichloromethane and Dibromochloromethane Wildlife receptors only: Chloroform and Methylene chloride
Sediment	**Inorganics:**None retained as ECPCs **Organics**:Aquatic and wildlife receptors: 4,4'-DDT Wildlife receptors only: Endrin ketone
Unfiltered, Undiluted Groundwater	**Inorganics**:Aluminum, Barium, Chromium, Copper, Iron, Lead, Manganese, Vanadium, **Organics**:Acetone, 2-Butanone, 1,1-Dichloroethylene, 1,2-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethylene, Xylenes (total), Benzo(b)fluoranthene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, bis(2-Ethylhexyl)phthalate, 2-Methynaphthalene, 2,Methylphenol, 4-Methylphenol, Naphthalene, Aroclor-1248
Unfiltered, Diluted Groundwater	**Inorganics**:Aluminum, vanadium **Organics**:Acetone, 2-Butanone, Trichloroethylene, Xylenes (total), Benzo(b)-fluoranthene, 1,2-Dichlorobenzene, 2-Methylnaphthalene, 2-Methylphenol, 4-Methylphenol

[1]ECPCs were selected for each medium in the Baseline Risk Assessment Report (ABB-ES, 1995a).

invertebrates and plants are evaluated based on the results of laboratory toxicity testing of surface soil samples from OU 8 with earthworms (*Eisenia foetida*) and lettuce seeds (*Lactuca sativa*).

The measures of adverse ecological effects for wildlife exposed to Rowell Creek surface water and sediment are evaluated based on a model that estimates the amount of contaminant exposure obtained via the diet and incidental ingestion of these media. Comparison of estimated doses with reference toxicity doses representing thresholds for both lethal and sublethal effects is the basis of the wildlife evaluation. Potential adverse ecological effects for aquatic life are indirectly measured for the entire mixture of ECPCs through the use of a benthic macroinvertebrate study. In addition, site-specific surface water and sediment contaminant concentrations are compared to surface water and sediment criteria, guidelines, and benchmark values.

Current and future risks for aquatic receptors are evaluated through characterization of risks from exposure to ECPCs in groundwater. Exposure concentrations of each ECPC in filtered and unfiltered groundwater are compared with available aquatic toxicity benchmark values. Additionally, an evaluation is presented of a dilution-series chronic toxicity test conducted using the water flea (*Ceriodaphnia dubia*) and fathead minnow (*Pimephales promelas*).

6.4.5 Risk Characterization The following sections describe how risks are characterized for ecological receptors. Potential adverse effects resulting from exposure to ECPCs in surface soil, surface water and sediment are characterized for wildlife, invertebrates, and plants. Risks are also characterized for aquatic receptors for exposures resulting from ECPCs in surface water, sediment, and groundwater.

Terrestrial Wildlife Exposure to Surface Soil. Risks for the representative wildlife species associated with ingestion and bioaccumulation of ECPCs in surface soil and prey items are quantitatively evaluated using Hazard Quotients (HQs), which are calculated for each ECPC by dividing the potential dietary exposure (PDE) concentration by the toxicity benchmark (RTV). Hazard Indices (HIs) are determined for each receptor by summing the HQs for all ECPCs. When the estimated exposure concentration is less than the RTV (i.e., the HQ is less than one), the contaminant exposures are assumed to fall below the range considered to be associated with adverse effects for growth, reproduction, and survival (of the individual organism) and no risks to the wildlife populations are assumed. When the ratio is greater than one (i.e., HQ greater than one), a discussion of the ecological significance is included and risk is assumed.

Summary HIs and HQs for representative wildlife receptors exposed to maximum ECPCs for both lethal and sublethal effects are less than 1. No potential adverse effects to reproduction, growth, or survival are indicated.

Terrestrial Plant and Invertebrate Exposure to Surface Soil. Risks for terrestrial plants and soil invertebrates are characterized based on the results of laboratory toxicity tests. Surface soil analytical and toxicity samples are collected concurrently and split for the two separate analyses. The analytical results for the surface soil samples are used to help interpret the contaminant exposures and responses of the test species (earthworms and lettuce seeds).

Earthworm survival was not adversely affected following test exposures to OU 8 soil. Although a reduction in lettuce seed germination was observed (as compared to the reference soil sample) in two of the surface soil samples from OU 8, there was no correlation between any ECPC concentration and observed responses. Interpretation of these results is confounded by apparently low statistical power. However, it is likely that a non-ECPC stressor (i.e., another physical, chemical, or biological stressor such as halogenated organomethanes) is responsible for the observed adverse response.

Wildlife Exposure to Surface Water and Sediment. Risks for wildlife associated with the ingestion of surface water, potentially contaminated aquatic life, and sediment are quantitatively evaluated using the HQ/HI approach described above for terrestrial wildlife exposure to surface soil. All of the HIs and HQs are less than one, indicating no potential adverse effects to reproduction, growth, or survival for wildlife from exposure to ECPCs currently detected in Rowell Creek surface water and sediment adjacent to OU 8.

Aquatic Receptor Exposure to Surface Water and Sediment. Risks for aquatic receptors are characterized based on a weight-of-evidence evaluation of the following factors:

- measurements of the aquatic macroinvertebrate community structure and function;

- comparison of concentrations of ECPCs in unfiltered surface water to reported toxicity of the ECPC in laboratory tests (AQUIRE information, USEPA, 1994e), AWQC (40 CFR 122; USEPA, 1991h) and State of Florida Surface Water Quality Standards (Chapter 62-302, FAC; Florida Legislature, 1995); and

- comparison of concentrations of ECPCs in sediment to National Oceanic and Atmospheric Administration (NOAA) Effects Range-Low (ER-L) and Effects Range-Median (ER-M) sediment guidelines (Long and others, 1993), USEPA sediment quality guidelines based on equilibrium partitioning (USEPA, 1988c), and OME LEL provincial sediment quality guidelines (Persaud and others, 1992).

Aquatic Receptor Exposure to Surface Water. No substantial exceedances of available surface water quality guidelines are identified for aquatic receptors in Rowell Creek in the vicinity of OU 8 (Table 0-10). Aluminum was detected at both downstream surface water sample locations at concentrations ranging from 141 to 559 $\mu g/\ell$; the USEPA chronic water quality criterion is 87 $\mu g/\ell$. Although larval trout are among the most sensitive ecological receptors with regard to aluminum exposure, no salmonids occur in Rowell Creek, a warm water system. The majority of species evaluated in AQUIRE (Appendix T, Baseline Risk Assessment, ABB-ES, 1995) are tolerant of the concentrations of aluminum detected in Rowell Creek adjacent to OU 8.

Silver was detected at a concentration of 0.24 $\mu g/\ell$ in a 1993 sample taken from Rowell Creek adjacent to OU 8. This analyte was not detected in surface water samples collected in 1994. It is unlikely that silver in surface water is posing a risk to OU 8 aquatic receptors.

A review of the macroinvertebrate habitat quality parameter data suggests that habitat quality conditions at this location of Rowell Creek represent a poor environment for many types of aquatic organisms. Community metric data from the macroinvertebrate study support this conclusion. Differences in habitat structure between Rowell Creek at OU 8 and the regional reference station may be sufficient to explain the decreased biological condition. The upgradient chlorinated sewage treatment plant discharge may also contribute to the differences in community structure at this sampling location.

Aquatic Receptor Exposure to Sediment. No substantial exceedances of available sediment quality guidelines are identified for aquatic receptors in Rowell Creek in the vicinity of OU 8 (Table O-11). Aroclor 1254 (180 μg/kg) and 4,4"-DDT (4.4 μg/kg) were detected; however, neither of these analytes was detected in OU 8 groundwater, indicating that transport of these contaminants from the disposal pit is not occurring. Further, it is unlikely that aquatic receptors are currently at risk from exposure to the low levels of these analytes in Rowell Creek sediment.

Aquatic Receptor Exposure to Groundwater. Risks for aquatic life associated with exposures to ECPCs in groundwater as it discharges to Rowell Creek are evaluated based on the following factors:

- comparison of maximum and average ECPCs in groundwater relative to reported toxicity benchmarks of the ECPC in laboratory tests (AQUIRE information, USEPA, 1994e), Federal AWQC (40 CFR 122; USEPA, 1991h), and State of Florida Surface Water Quality Standards for Class III waters (Chapter 62-302; Florida Legislature, 1995) and

- responses of *P. promelas* and *C. dubia* in the groundwater laboratory toxicity tests.

Comparison of the exposure concentrations of each ECPC in filtered and unfiltered groundwater indicates that several constituents in groundwater may result in risk to aquatic organisms (Table O-12). However, when a dilution factor is applied to estimate the dilution of groundwater prior to discharge to Rowell Creek, estimated concentrations of contaminants in groundwater are below available aquatic toxicity criteria.

Results of the dilution-series groundwater laboratory toxicity testing indicate that exposure to undiluted groundwater from OU 8 may result in reduced survival and reproduction for the water flea and the fathead minnow. Although several groundwater risk contributors were identified, three dichlorobenzene isomers were found to be the primary risk contributors from OU 8 groundwater. When groundwater was diluted approximately 20-fold, little toxicity was observed in the water flea or fathead minnow. Analysis of the toxicity testing data supports the contention that diluted groundwater discharging to Rowell Creek poses little risk to aquatic receptors. Chapter 3.0 states that a dilution of 132-fold or more would be expected as OU 8 groundwater discharges to Rowell Creek.

6.5 CONCLUSIONS OF ECOLOGICAL ASSESSMENT. Potential risks for ecological receptors were evaluated for contaminants in surface soil, surface water, and sediment at OU 8. A summary of these risks is presented in Tables 6-4 and 6-5. Ecological receptors are not likely to be at risk from exposure to OU 8 surface soil, groundwater as it discharges to Rowell Creek, surface water, or sediment.

Table 6-4
Summary of Risk Characterization for Wildlife, Plant, and Invertebrate Receptors, Site 3

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Receptor	Biological Parameters	Medium			
		Surface Soil	Surface Water	Sediment	Future Groundwater Discharge
Terrestrial and wetland wildlife	Food web modeling	None	None	None	NA
Terrestrial and wetland plants	Toxicity tests with lettuce seeds	None[1]	NA	NA	NA
Soil invertebrates	Toxicity tests with earthworms	None	NA	NA	NA

[1] Slight reduction of lettuce seed germination believed to be associated with a noncontaminant stressor.

Notes: None = no effect.
NA = not applicable.

Table 6-5
Summary of Risk Characterization for Aquatic Receptors, Site 3

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Sampling Location	Biological Parameters		ECPCs[1]			Interpretation of Weight-of-Evidence
	Groundwater Laboratory Toxicity Testing	Benthic Community Composition	Groundwater	Surface Water	Sediments	
Fourteen monitoring wells located within the OU 8 plume, including the following:	NA	NA	Diluted, unfiltered: 1,2-DCB[2]; aluminum[3] Undiluted, unfiltered: 1,2-DCB; 1,3-DCB; 1,4-DCB; bis(2-Ethylhexyl-phthalate; Aroclor 1248; aluminum; chromium; copper, iron	NA NA	NA NA	Diluted, unfiltered groundwater: no risk is expected upon discharge to Rowell Creek. Undiluted, unfiltered groundwater: risk may be associated primarily with dichlorobenzene isomers. Undiluted, unfiltered groundwater is not expected to discharge into Rowell Creek.
CF-3-MW13S Located within the plume, immediately upgradient of discharge into Rowell Creek.	100 percent survival of the water flea and 93 percent survival of the fathead minnow at 5 percent of sample; sublethal effects noted at 50 percent sample (water flea) and 100 percent sample (fathead minnow).	NA	aluminum, chromium, iron, lead,	NA	NA	No risk is expected on discharge to Rowell Creek.
CF-3-MW28S Located within the plume, under the "hot spot" near the former disposal pit.	No effects noted on survival of water flea in 100 percent sample, but reduced survival in the fathead minnow at this concentration; sublethal effects noted at all dilutions in the water flea, but none observed in the fathead minnow at any dilution.	NA	aluminum, copper, iron	NA	NA	No risk is expected on discharge to Rowell Creek.

See notes at end of table.

Table 6-5 (Continued)
Summary of Risk Characterization for Aquatic Receptors, Site 3

Remedial Investigation
Operable Unit 8
Naval Air Station Cecil Field
Jacksonville, Florida

Sampling Location	Biological Parameters		ECPCs[1]			Interpretation of Weight-of-Evidence
	Groundwater Laboratory Toxicity Testing	Benthic Community Composition	Groundwater	Surface Water	Sediments	
CF-3-SW/SD1	NA	NA	NA	Aluminum[3]	4,4'-DDT[4,5]	No site-related risk is estimated.
RC-SW/SD3	NA	Inconclusive, but reduced relative to Five Mile Creek	NA	Aluminum[3]	Aroclor-1254[5,6]	No significant site-related risks estimated. Macroinvertebrate data suggest the decreased biological condition may be due to poor habitat structure; the upgradient sewage treatment plant discharge may contribute to decreased habitat quality.

[1] Ecological chemicals of potential concern (ECPCs) which exceeded two times the reference concentration and also exceeded benchmarks.
[2] Value is 2 orders of magnitude less than the AWQC value (USEPA, 1991h); exceeds lowest effect level reported for the most sensitive species tested, trout, which is a cold-water species not expected to occur in Rowell Creek. Exposure to this level is not expected to be toxic to indigenous species.
[3] Evaluation of unfiltered water over-estimates the risk associated with exposure to inorganics such as aluminum (USEPA, 1993).
[4] Value is less than the USEPA draft SQG (8.28 µg/kg) and OME LEL value (8 µg/kg)(USEPA 1988c; Persaud and others, 1992, respectively).
[5] Analyte was not detected in OU 8 groundwater, indicating transport of the contaminant from OU 8 is not occurring.
[6] PCBs were not detected in 1994 samples.

Notes: NA = not applicable.
DCB = Dichlorobenzene.

7.0 SUMMARY AND CONCLUSIONS

7.1 SUMMARY. Operable Unit (OU) 8, located at Naval Air Station (NAS) Cecil Field in Jacksonville, Florida, consists of Site 3, the oil and sludge disposal pit. OU 8 is located immediately northeast of the intersection of Perimeter Road and the access road which connects Perimeter Road and the Lake Fretwell dam.

OU 8 was investigated from 1985 to 1994 to refine and quantify the conceptual understanding of site conditions resulting from wastes placed in the disposal pits. This RI relies on comprehensive measurements, analysis, and interpretation of site conditions including the use of groundwater, surface and subsurface soil, surface water, and sediment samples. These measurements and samples were collected over a 20-acre study area to describe the areal and vertical distribution of contaminants. Based on these investigation results, health and ecological risks posed by the detected contaminants were evaluated.

OU 8 was reportedly used to dispose of liquid wastes and sludge from the mid-1950s until 1975, although review of aerial photographs suggests the area was not disturbed prior to 1960. Liquid wastes, including fuel, oil, solvent, paint, and paint stripper, were typically taken to the site by the individual generators (i.e., the fuel farm, Public Works, the Aircraft Maintenance Department, and the squadrons) in bowsers (trailer mounted tanks) or 55-gallon drums, drained into the pit, and allowed to seep into the soil or evaporate. The pit wastes were burned when the liquid level approached the top. This burning procedure was repeated approximately once every 3 months by the fire department. No records were kept on disposal practices, and access to the site was uncontrolled; therefore, the amount of the liquid wastes disposed of at OU 8 is unknown.

On February 8, 1992, a Navy helicopter crashed into a wooded area located approximately 800 feet east of the OU 8 source area (see Figure 1-3). The helicopter had a fuel capacity of between 1,800 and 2,000 gallons and ignited on impact. Although the crash site is not part of the OU 8 source area, it is within the OU 8 study area, and results and conclusions for the crash site have been included in this report.

7.1.1 Physical Setting The disposal pit area is located adjacent to the unpaved Perimeter Road and Lake Fretwell access road approximately 1,400 feet west-southwest of the Lake Fretwell dam. The disposal pit area is flat and the area to the east slopes gently to the wetlands and Rowell Creek (which flows south) and Lake Fretwell dam. The area is covered with vegetation ranging from open grassy areas to heavily wooded areas. The disposal pit area is vegetated primarily with briers and weeds. The major surface drainage pathways are the ditches along the Lake Fretwell access road, which carry runoff in the direction of the lake. South of the Lake Fretwell access road, surface drainage follows the topography, which slopes gently to the east to the wetlands area. A drainage ditch carries runoff from the wetlands area to Rowell Creek during periods of heavy precipitation.

Groundwater is typically encountered 3 to 4 feet bls in the disposal pit area, 2 to 3 feet bls in the helicopter crash area, and may be as shallow as 6 inches bls in the downgradient wetlands area. The water table represents the top of the surficial aquifer, which is approximately 100 feet thick beneath the disposal pit area and approximately 70 feet thick at Rowell Creek. The upper portion of the

surficial aquifer is composed primarily of sand. From approximately 50 feet bls to the bottom of the surficial aquifer, clayey material is encountered. The surficial aquifer is underlain by the intermediate aquifer, which is primarily composed of dolomite and is estimated to be 20 to 25 feet thick in the area.

The general groundwater flow direction in the surficial aquifer is horizontal to the east-southeast. There is also a downward flow component which is evident at the waste disposal pit area, and continues for approximately 900 to 1,000 feet downgradient (east-southeast). At this point the vertical flow becomes upward and both horizontal and vertical gradients become increasingly steeper over the remaining 300 to 400 feet to Rowell Creek. The pronounced upward gradients in this interval indicate that the surficial aquifer discharges to Rowell Creek. Rowell Creek has gauged flows as low as 2.4 cfs, including 1.2 cfs from the FOTW effluent outfall immediately below the dam. The estimated flow rate of the surficial aquifer from the disposal pit to Rowell Creek is approximately 88 feet per year, assuming a horizontal gradient of 0.016 feet per foot, a horizontal hydraulic conductivity of 3 feet per year, and an effective porosity of 20 percent. Assuming this flow rate, groundwater would travel the 1,400 feet from the disposal pit area to Rowell Creek in approximately 16 years.

7.1.2 **Nature and Extent of Contamination** Evaluation of investigation results to delineate the nature and extent of contamination from the past discharge to the disposal pit indicate the presence of contaminants in all media sampled.

Surface Soil. Evaluation of surface soil sample analytical results indicate the presence of VOCs, SVOCs, pesticides, PCBs, and inorganics. Many of the VOCs and SVOCs detected in surface soil are commonly found in fuel and waste oil and may be related to the former waste disposal operations at OU 8. Few pesticides and PCBs were detected in surface soil and are most likely the result of former basewide application of pesticides and use of oil containing PCBs for dust control along dirt roads. Inorganic chemicals of potential concern (CPCs) appear to be most frequently detected within or near the former pit boundary.

Subsurface Soil. Evaluation of subsurface soil sample analytical results indicate the presence of VOCs, SVOCs, pesticides, PCBs, and inorganics. The distribution of VOCs, SVOCs, and inorganics is generally similar with the highest concentrations located in samples from soil borings near or within the pit area and at the helicopter crash site. Pesticides and PCBs generally had a more sporadic distribution and low frequency of detection over the site. Detections of inorganics above background subsurface soil concentrations were observed in samples collected from the borings located within or along the perimeter of the former waste disposal pit.

Surficial Aquifer Groundwater. Ten VOCs were detected in groundwater samples collected from the surficial aquifer (composed of sandy sediments within 70 to 100 feet of land surface). Of these 10 compounds, 5 exceeded human health risk criteria at OU 8: 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethene (1,2-DCE), trichloroethene (TCE) and benzene. The detection of VOCs has been observed to extend from the source area to approximately 1,400 feet downgradient toward Rowell Creek. No VOC detections were observed on the east side of Rowell Creek indicating that VOC-contaminated groundwater in the surficial aquifer on the west side of Rowell Creek is discharging into the creek.

A total of 14 SVOCs were detected in groundwater samples collected from the surficial aquifer. Of these 14 compounds, 6 exceeded human health risk criteria at OU 8: 1,2-dichlorobenzene (1,2 DCB), 1,4-dichlorobenzene (1,4 DCB), benzo(b)fluoranthene, naphthalene, 4-methylphenol, and bis(2-ethylhexyl) phthalate.

Based on the historical operations at OU 8 and the VOC and SVOC contaminant distribution in the surficial aquifer, it is evident that the source of these contaminants is the former waste disposal pit at OU 8.

Several State and Federal drinking water criteria (Appendix O) were exceeded by the detections of these VOCs and SVOCs. Detections of VOCs and SVOCs which exceeded the state and federal standards are discussed in the Baseline Risk Assessment (see Chapter 6.0 for a summary of the risk assessment).

The only pesticides or PCBs that were detected in the groundwater at OU 8 were the pesticides Endosulfan II and beta-BHC; and the PCB Aroclor-1248. The only compound of these three that contributed to the overall risk was Aroclor-1248. Aroclor-1248 was detected in 2 of the 33 surficial monitoring wells at concentrations of 0.6 J $\mu g/\ell$ (CEF-3-4S) and 0.79 J $\mu g/\ell$ (CEF-3-6S), slightly above the MCL of 0.5 $\mu g/\ell$. Both of these water table wells are located in the area adjacent to the Lake Fretwell access road and south of the disposal pit. It is unknown if these detections are related to the waste disposal operations at OU 8 or the use of oil on the unpaved access road.

Based on the results of inorganics analyses of unfiltered groundwater from the 30 surficial aquifer wells, 18 inorganics were detected. Of these 18 inorganics, 4 exceeded the human health risk criteria: arsenic, chromium, manganese, and vanadium. These four inorganics do not appear to originate at the OU 8 disposal pit area.

Intermediate Aquifer Groundwater. The only organic compounds detected in the intermediate aquifer (a dolomite layer below the surficial aquifer) were phenol at 1 J $\mu g/\ell$ and bis(2-ethylhexyl)phthalate at 2 J $\mu g/\ell$. Both of these compounds were detected in well CEF-3-33DD, which is located in the disposal pit area and screened in the dolomite between 108 and 118 feet bls. Both of these compounds were also detected at low concentrations in the upgradient background well CEF-3-10D, which is screened from 90 to 100 feet bls, and do not appear to be site related due to the absence of these compounds in the shallow surficial aquifer wells near the disposal pit area.

Only two of the inorganic analytes (arsenic and manganese) that contributed to the overall risk were detected in the intermediate aquifer. Arsenic was detected in one of the three intermediate aquifer wells, CEF-3-33D at 1.2 $\mu g/\ell$. Manganese was detected in all three intermediate aquifer monitoring wells at concentrations ranging from 10.8 J $\mu g/\ell$ in CEF-3-7DD to 37.9 $\mu g/\ell$ in CEF-3-33DD. Based on the conceptual model developed for groundwater flow that indicates a downward flow component of groundwater in the source area and then upward flow from the surficial aquifer to Rowell Creek downgradient, it does not appear that these inorganic detections are site-related.

Surface Water. Four organic compounds were detected in the surface water samples collected for OU 8: the VOCs bromodichloromethane, dibromochloromethane, methylene chloride, and chloroform. With the exception of methylene chloride, these VOCs

are most likely from the wastewater treatment plant effluent which enters Rowell Creek upstream of these sampling locations near the base of the Lake Fretwell dam. These VOCs are common by-products of the chlorination process used during the treatment of wastewater.

Based on the results of inorganic analyses of the two surface water samples, five inorganic CPCs were identified during the risk assessment: aluminum, antimony, iron, lead, and silver. Of these five inorganics, only iron was detected in the upstream background sample RC-SW-2.

Iron and aluminum were detected in the shallow monitoring well CEF-3-31S adjacent to Rowell Creek but at concentrations lower than those observed in surface water. Antimony, lead, and silver were not detected in monitoring well CEF-3-31S. Since these inorganics were detected at lower concentrations or not detected in monitoring wells on the west side of Rowell Creek, the source of these analytes does not appear to be contaminated groundwater coming from the OU 8 source area.

Sediment. Three organic compounds were detected in the sediment samples collected for OU 8: one VOC, 2-butanone; and two SVOCs, di-n-butylphthalate, and bis(2-ethylhexyl) phthalate. Due to their absence in nearby surface soil samples and shallow groundwater samples on the west side of Rowell Creek, the presence of these compounds cannot be linked to the source area.

Based on the inorganic analytical results of the two sediment samples, four inorganics identified as CPCs in the risk assessment were detected: barium, copper, lead, and zinc. Barium, copper, and zinc were not detected in the upstream background sample RC-SD-2.

Barium and lead were detected in surface soil samples collected from the helicopter crash site area, which is the area with inorganic surface soil data nearest Rowell Creek. However, the surface soil concentrations of these inorganics did not exceed the background soil concentrations and do not appear to be the source of these analytes detected in the sediment samples. Copper was also detected in surface soil samples at the helicopter crash site but at concentrations lower than what was detected in sediment.

7.1.3 Fate and Transport of Contamination The fate and transport of contaminants at OU 8 focuses on TCE because of its widespread distribution and because it is a major risk driver in the baseline risk assessment.

TCE was apparently introduced to the soil and groundwater at the waste disposal pit area from 1955 to 1975. Other contaminants may have also been introduced to these media via the same disposal, including VOCs, SVOCs (such as 1,4-dichlorobenzene), and inorganics (such as iron and lead). Several of the VOCs and SVOCs have been observed to migrate from the source area in the 35 to 40 years since the discharge to the disposal pit began.

Some transformation products of TCE (1,2-DCE and 1,1-DCE) were detected in the soil and groundwater near the source area. These compounds are formed by the natural biodegradation of TCE. The biodegradation of TCE near the source area is most likely due to the existence of favorable environmental and microbial conditions (e.g., nutrients, organic carbon, redox potential) in that area.

Based on the results of the confirmatory soil sampling and analysis, it is estimated that a TCE concentration of 146 $\mu g/kg$ remains in the vadose soil over an area of approximately 8000 ft^2. It is further estimated that the TCE concentration of the leachate generated from the infiltration of precipitation through these soil would take approximately 23 years so that its concentration after mixing with the top 10 feet of the surficial aquifer, would be less than 5 $\mu g/\ell$, the drinking water MCL for TCE.

The groundwater contaminant plume is currently discharging to Rowell Creek approximately 1,400 feet downgradient of the disposal pit. Based on the estimated groundwater flow rate of 88 feet per year, groundwater from beneath the disposal pit area would have reached Rowell Creek in the early 1970's, approximately 16 years after disposal operations began. Ignoring microbial and abiotic processes, it will take approximately 58 years for the groundwater to naturally flush contaminants to concentrations below drinking water criteria.

All dissolved groundwater contaminants originating from the disposal pit area would be subject to a similar hydrologic transport as TCE. Dilution on the order of 99.2 percent diluted (diluted 133 times) or more is estimated for groundwater contaminants upon their discharging to and mixing with the surface water of Rowell Creek.

7.1.4 **Baseline Risk Assessment** A baseline risk assessment was completed at OU 8 to characterize the risks associated with exposures to contaminants detected at OU 8 for human health and ecological receptors (ABB-ES, 1995). A review of available guidance was also presented.

7.1.4.1 **Human Health Risk Assessment** Potential health risks were evaluated under current and assumed future land use conditions for a subset of contaminants detected in surface soil, subsurface soil, surface water, sediment, and groundwater (surficial and intermediate aquifers) associated with OU 8. The chemicals chosen were selected in accordance with USEPA guidance and because they are the most likely chemicals to pose risks of concern to human receptors.

Current Land Use. All cancer and noncancer risks estimated for current land use are consistent with USEPA criteria, which indicate acceptable exposure levels are associated with an excess lifetime cancer risk in the range of 1 in 10,000 to 1 in a million (USEPA, 1990) or a hazard index of 1 or less. Comparison to the FDEP cancer risk threshold of 1 in a 1,000,000 also indicates acceptable exposure levels for current land use. The baseline cancer risk in the U.S. is one in two for men and one in three for women (ACS, 1994)

Future Land Use. Cancer and noncancer risks estimated in surface soil, subsurface soil, surface water, sediment, and the intermediate aquifer under future residential land use assumptions are also consistent with acceptable risks as described by USEPA. However, future potable use of the surficial aquifer was estimated to have risks greater than those associated with acceptable exposure levels. The cancer risk estimate for the surficial aquifer under future land use conditions (adult resident) was 3 in 1,000. The major contaminant contributing cancer risk was 1,1-dichloroethene. The noncancer risk estimate (HI) for potable use of the surficial aquifer is 20. Major contributors to this HI are trichloroethene, 1,2-dichloroethene, 1,2-dichlorobenzene, and 1,1-dichloroethene.

In summary, the risk estimates for surface soil, subsurface soil, surface water, sediment, and the intermediate aquifer indicate that human exposure to these media at OU 8, under the conditions evaluated in this assessment, is not associated with unacceptable risk (USEPA) of adverse health effects (cancer or noncancer). Concern over the contamination in the surficial aquifer may be warranted, however, because of the risk of adverse health effects (cancer and noncancer) associated with assumed future use of the groundwater as a potable water supply. Use of the surficial aquifer as a drinking water supply at Site 3 may never occur because the area is served by a community water supply system. Based on the results of the human health portion of the BRA, including the results of the criteria comparison, the development of remedial action strategies may be necessary for future potable use of the surficial aquifer at OU 8.

7.1.4.2 Ecological Assessment The purpose of the ecological risk assessment (ERA) was to characterize the risks associated with potential exposures to site-related contaminants at OU 8 for ecological receptors. Potential risks for ecological receptors were evaluated for selected contaminants detected in surface water, sediment, and groundwater at OU 8.

No risks were identified for terrestrial plant and invertebrate exposures to surface soil or for terrestrial wildlife resulting from exposures to selected contaminants in surface soil, surface water, and sediment.

Results of laboratory groundwater toxicity testing indicate that exposure to undiluted groundwater from OU 8 may result in reduced survival and reproduction for the water flea and the fathead minnow. In general, the water flea was more sensitive to undiluted groundwater than the fathead minnow. Although several groundwater risk contributors were identified, three dichlorobenzene isomers were found to be the primary ecological risk contributors. When groundwater was diluted approximately 20-fold (actual groundwater discharging into Rowell Creek is diluted 133 times), little toxicity was observed in the water flea or fathead minnow. Analysis of the toxicity testing data supports the contention that groundwater discharging to Rowell Creek poses little risk to aquatic receptors.

7.1.4.3 Comparison to Available Criteria Available criteria for groundwater (USEPA, 1994d; FDEP, 1994a), surface soil (FDEP, 1994b), and subsurface soil (FDEP, 1994b) were considered in the HHRA for OU 8. Comparing these criteria to the maximum detected concentrations for each chemical detected in OU 8 media (ABB-ES, 1995a) led to the following list of chemicals by medium which exceeded at least one criterion.

- Groundwater: 1,1,1-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethene, benzene, trichloroethene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 4-methylphenol, benzo(b)fluoranthene, naphthalene, and bis(2-ethylhexyl)phthalate.

- Surface Soil: benzo(a)pyrene and TRPH.

- Subsurface Soil: methylene chloride, trichloroethene, and TRPH.

7.2 CONCLUSIONS. Several conclusions can be made regarding the physical characteristics of the OU 8 study area and the contaminants detected in surface water, sediment, surface soil, subsurface soil, and groundwater.

- Sufficient information was collected in the field or compiled from historical records to identify and assess human and ecological risks, extent and nature of contamination, and remedial alternatives for OU 8 as a result of waste disposal operations from the mid 1950's to 1975.

- Contaminant distribution from the waste disposal pit area is well defined in surface and subsurface soil at OU 8 and does not pose a risk to human or ecological receptors.

- Disposal pit area vadose zone wastes are expected to continue to leach contamination to groundwater for a period of approximately 23 years.

- Groundwater from the disposal pit migrates and is interpreted to discharge into Rowell Creek.

- Wastes deposited in the former disposal pit have contaminated underlying groundwater at OU 8 sufficiently to pose a health risk if groundwater is used as a future potable (drinking) water supply. Use of untreated groundwater as a water supply poses an unacceptable carcinogenic risk of 3 in 1,000 and a noncarcinogenic risk of 20.

- It is expected that a period of 58 years will be required for contamination to leach naturally from soil and to flush naturally from the aquifer.

- There are no unacceptable human health or ecological risks associated with OU 8 for exposure to Rowell Creek surface water and sediments.

- OU 8 is located in a low traffic area along perimeter road and it is not certain at this time what the land use will be after base closure. The site is not served by potable water or other utilities which are available to the east in the industrialized part of NAS Cecil Field.

7.2.1 Data Limitations and Recommendations for Future Work The purpose of the data limitations section is to outline the limits within which the conclusions of the RI are made and to identify areas for which use of the data, findings, and conclusions developed during the RI may be inappropriate. This information will assist in the evaluation of RI data during the FS and assist the Navy and regulatory agencies during the selection of the final remedy for OU 8.

7.2.1.1 Data limitations Based on the evaluation of data gathered during the OU 8 RI, the distribution of groundwater contaminants between the source area monitoring wells and the area near the helicopter crash site (represented by the cluster of monitoring wells containing CEF-3-28S, CEF-3-29D, and CEF-3-30DD) is based on the groundwater screening program (using temporary well screens and field laboratory analysis) and not monitoring wells.

7.3.2 Data Gaps No data gaps were identified that would prevent the development and selection of a remedial action for OU 8.

7.3.3 Recommendation Based on the evaluation of data gathered during the OU 8 RI, it is recommended that a program should be instituted to prevent risks associated with possible future use of OU 8 groundwater as a potable water supply.

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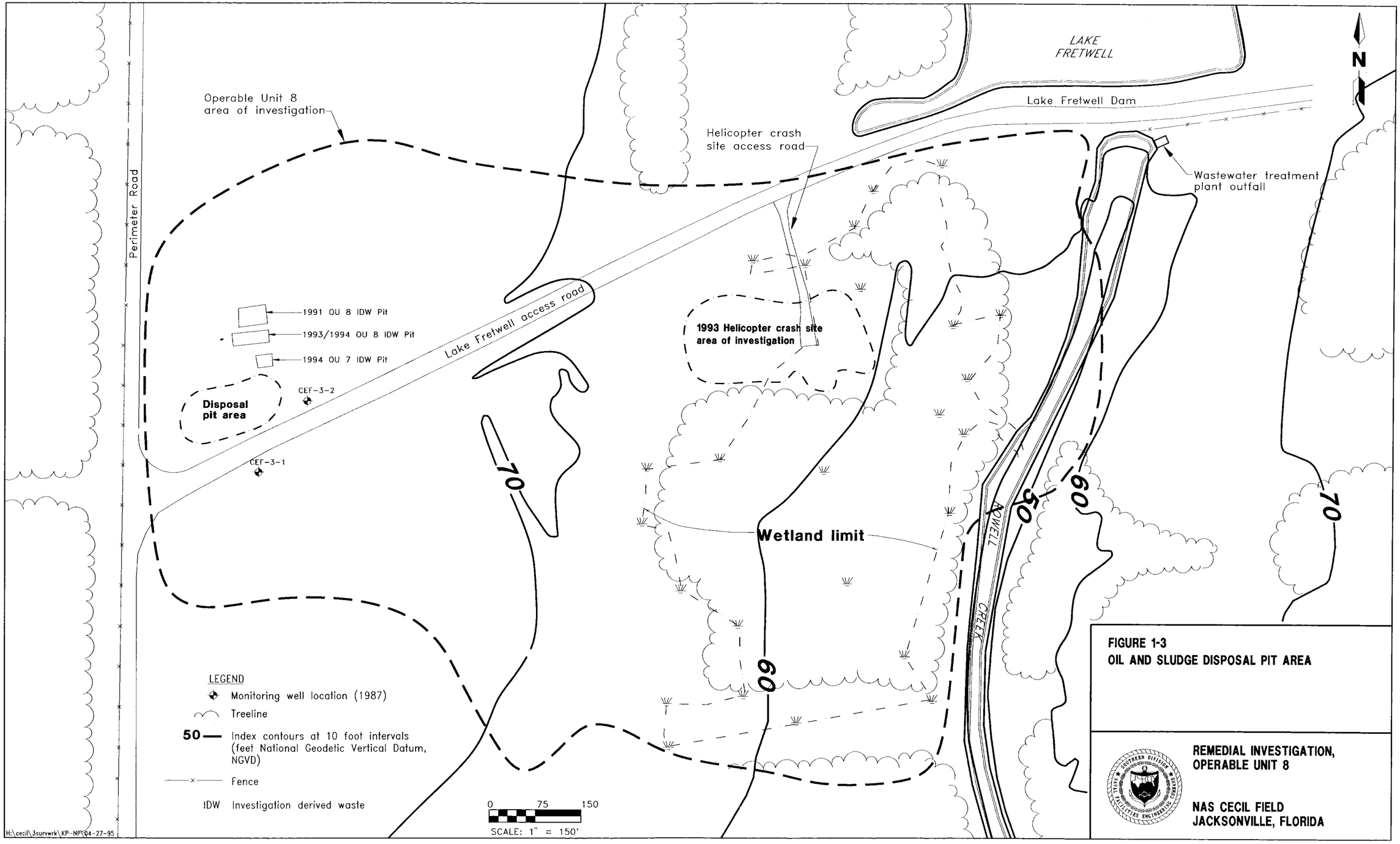


FIGURE 1-3
OIL AND SLUDGE DISPOSAL PIT AREA

REMEDIAL INVESTIGATION,
OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

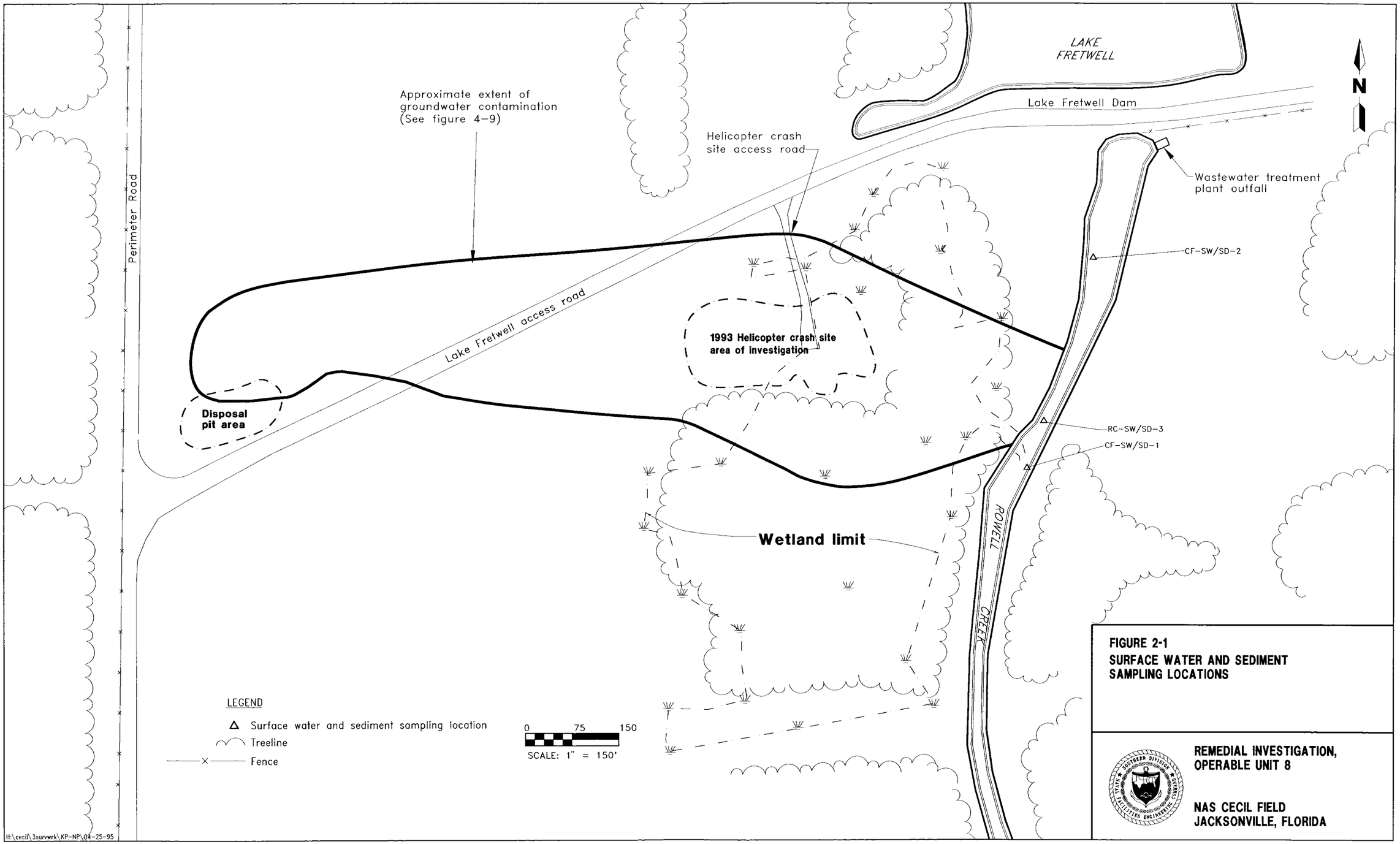


FIGURE 2-1
SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

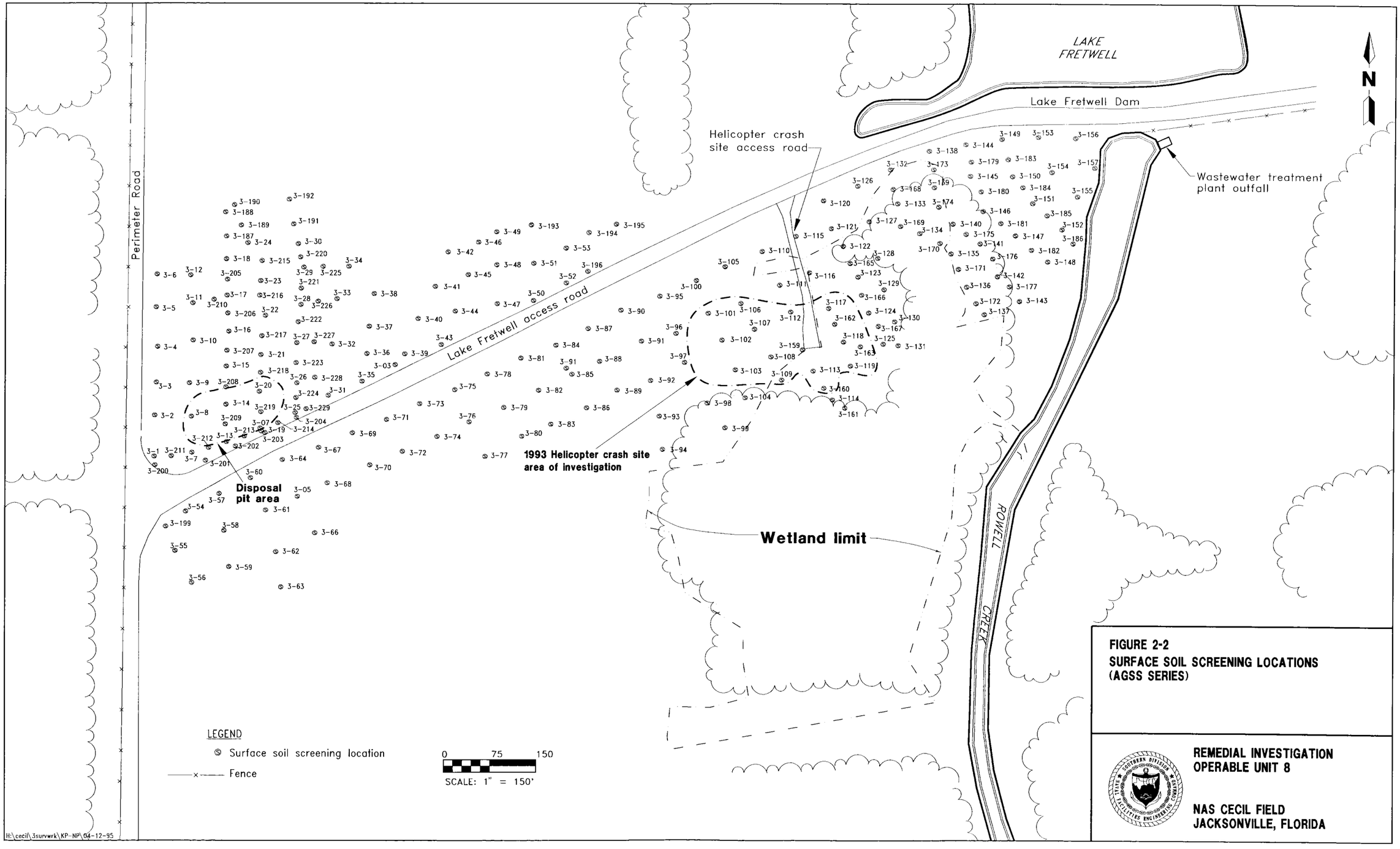


FIGURE 2-2
SURFACE SOIL SCREENING LOCATIONS (AGSS SERIES)

REMEDIAL INVESTIGATION
OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

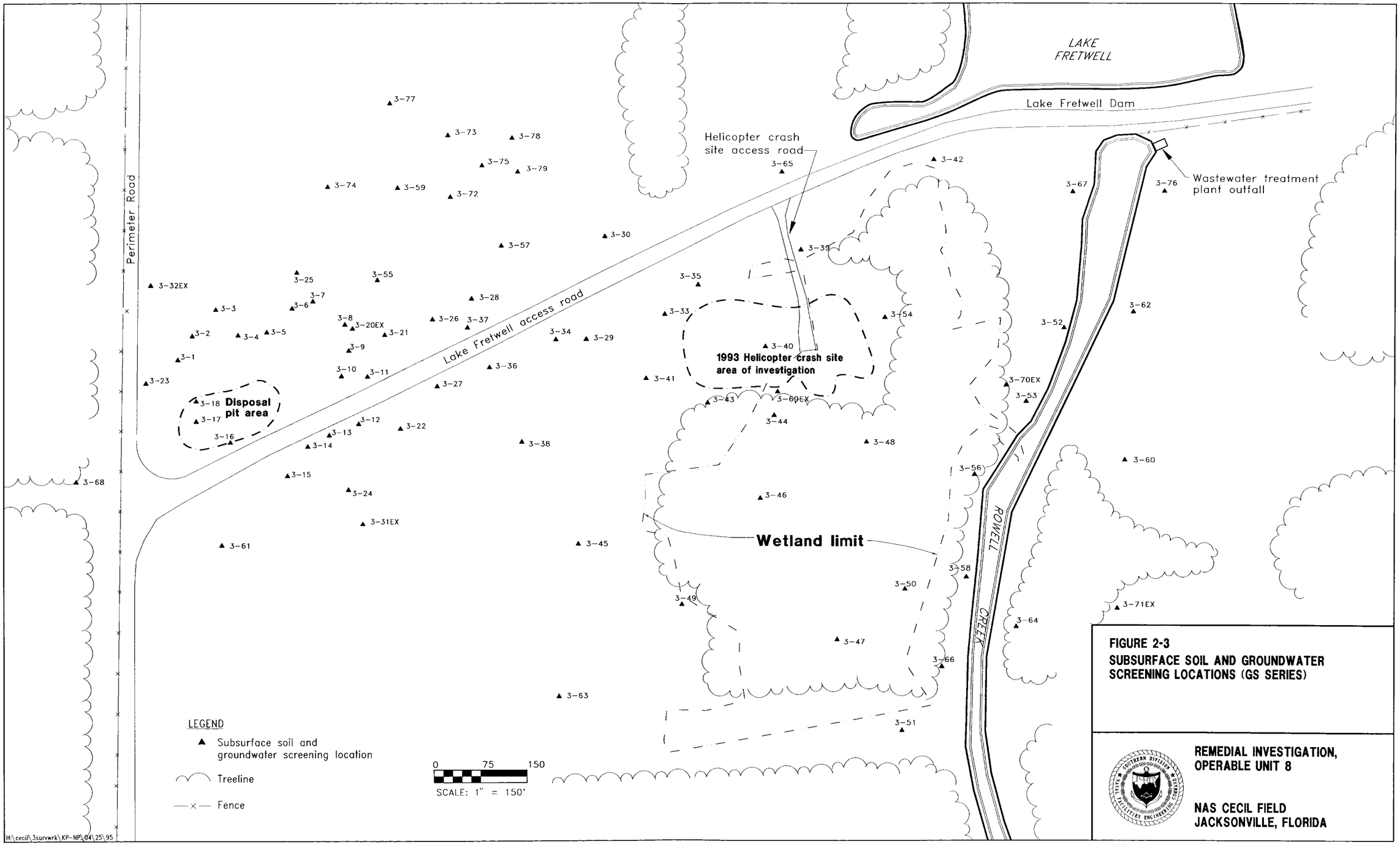


FIGURE 2-3
SUBSURFACE SOIL AND GROUNDWATER SCREENING LOCATIONS (GS SERIES)

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

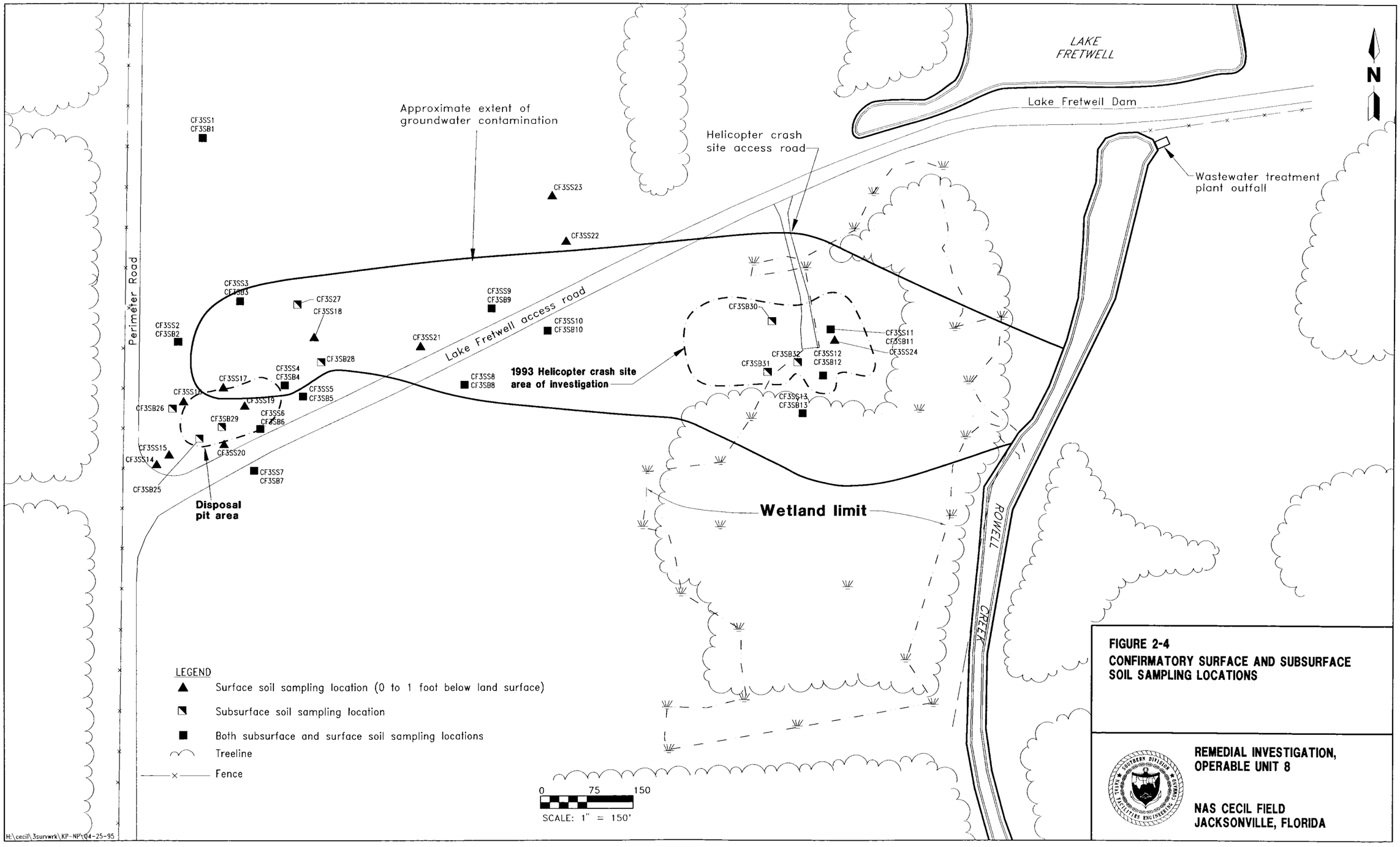


FIGURE 2-4
CONFIRMATORY SURFACE AND SUBSURFACE SOIL SAMPLING LOCATIONS

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

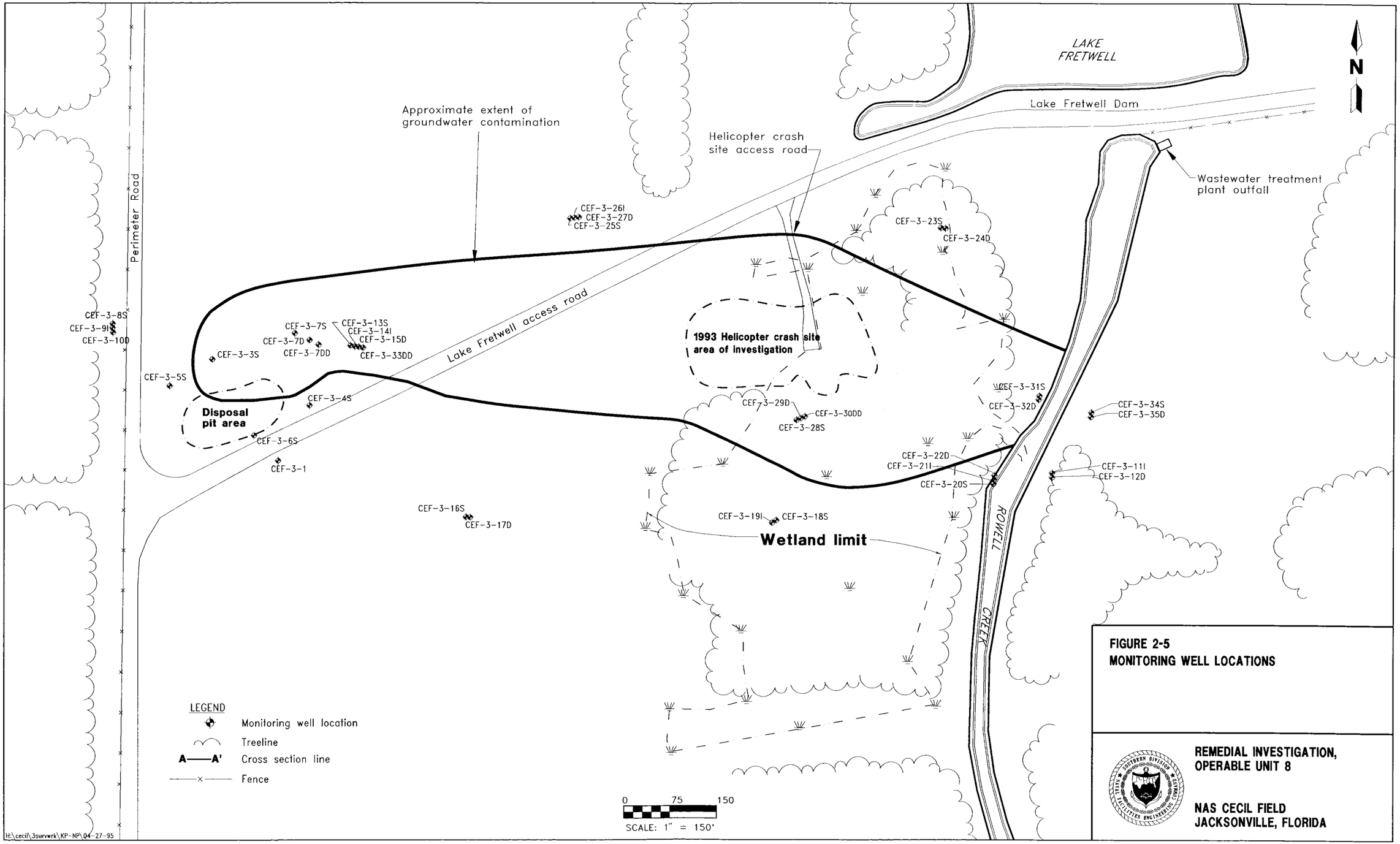


FIGURE 2-5
MONITORING WELL LOCATIONS

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

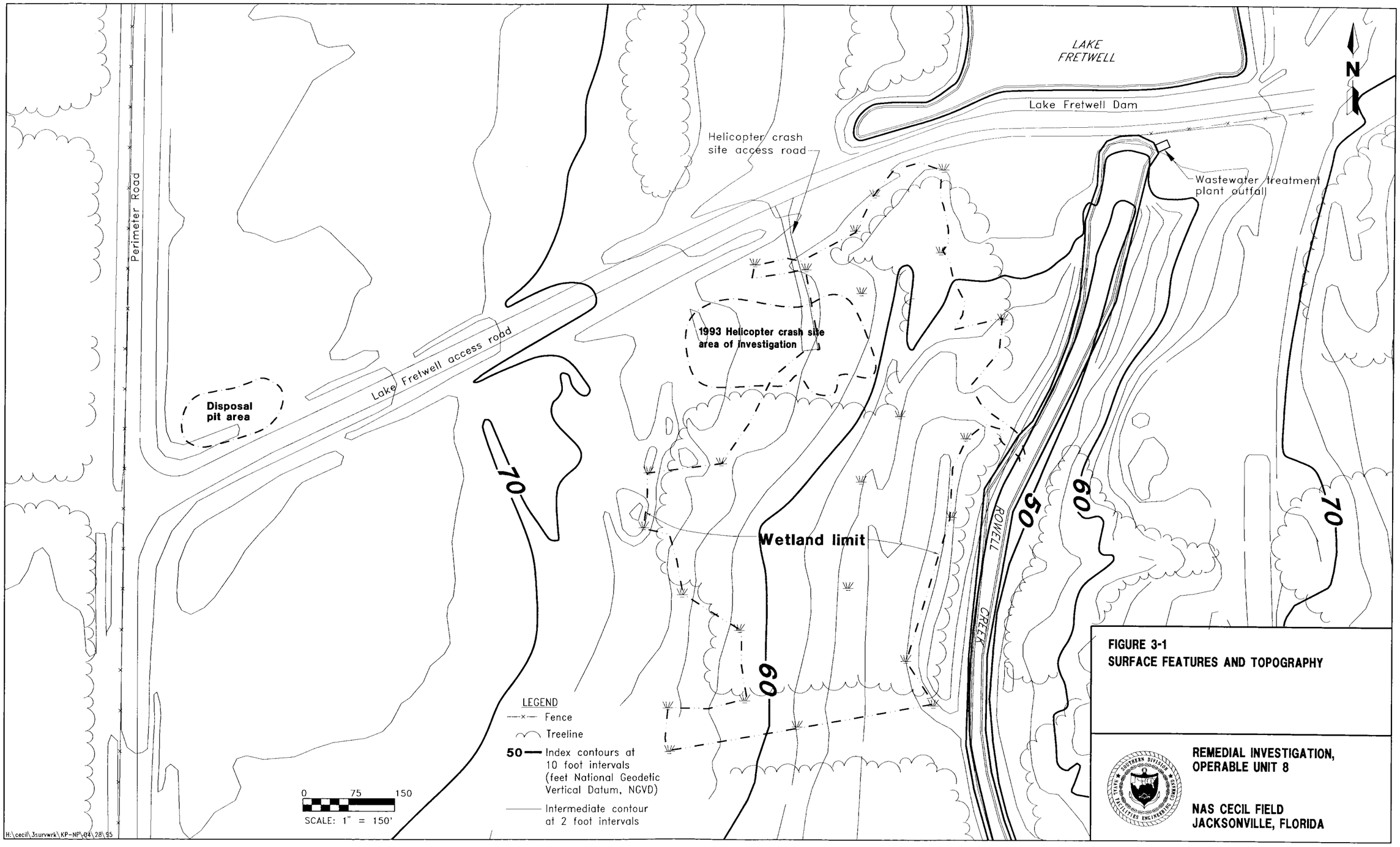
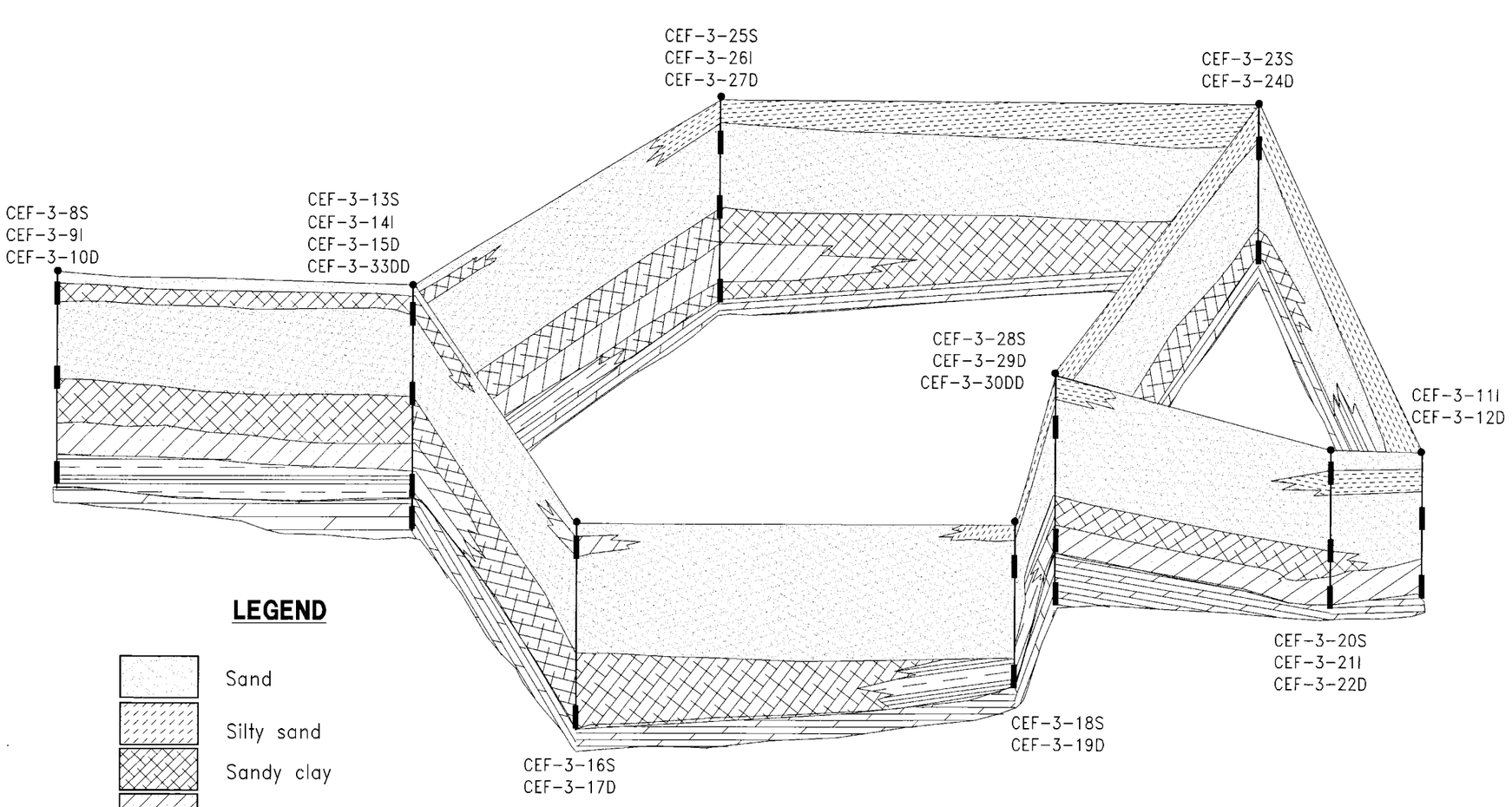


FIGURE 3-1
SURFACE FEATURES AND TOPOGRAPHY

REMEDIAL INVESTIGATION,
OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA



LEGEND

- Sand
- Silty sand
- Sandy clay
- Clayey sand
- Clay
- Dolomite
- Monitoring well
- Screened interval

Verticial Scale

0 30 60

SCALE: 1 INCH = 60 FEET

Horizontal Scale

0 75 150

SCALE: 1 INCH = 150 FEET

NOTE: See figure 3-7 for location of the fence diagram

FIGURE 3-5
LITHOLOGIC FENCE DIAGRAM

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

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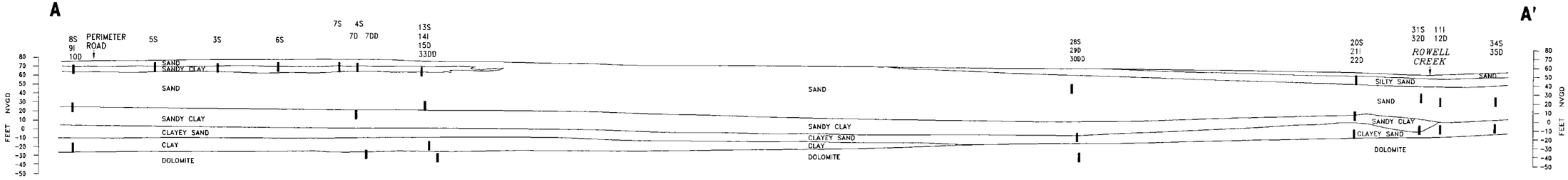
Approximate disposal area

Approximate extent of wetlands

Approximate location of Helicopter crash site



LEGEND

15D — Monitoring well screened intervals

3-41 — Groundwater screening locations

NGVD = National Geodetic Vertical Datum of 1929

NOTE: See figure 3-7 for location of cross-section A-A'

0 60 120

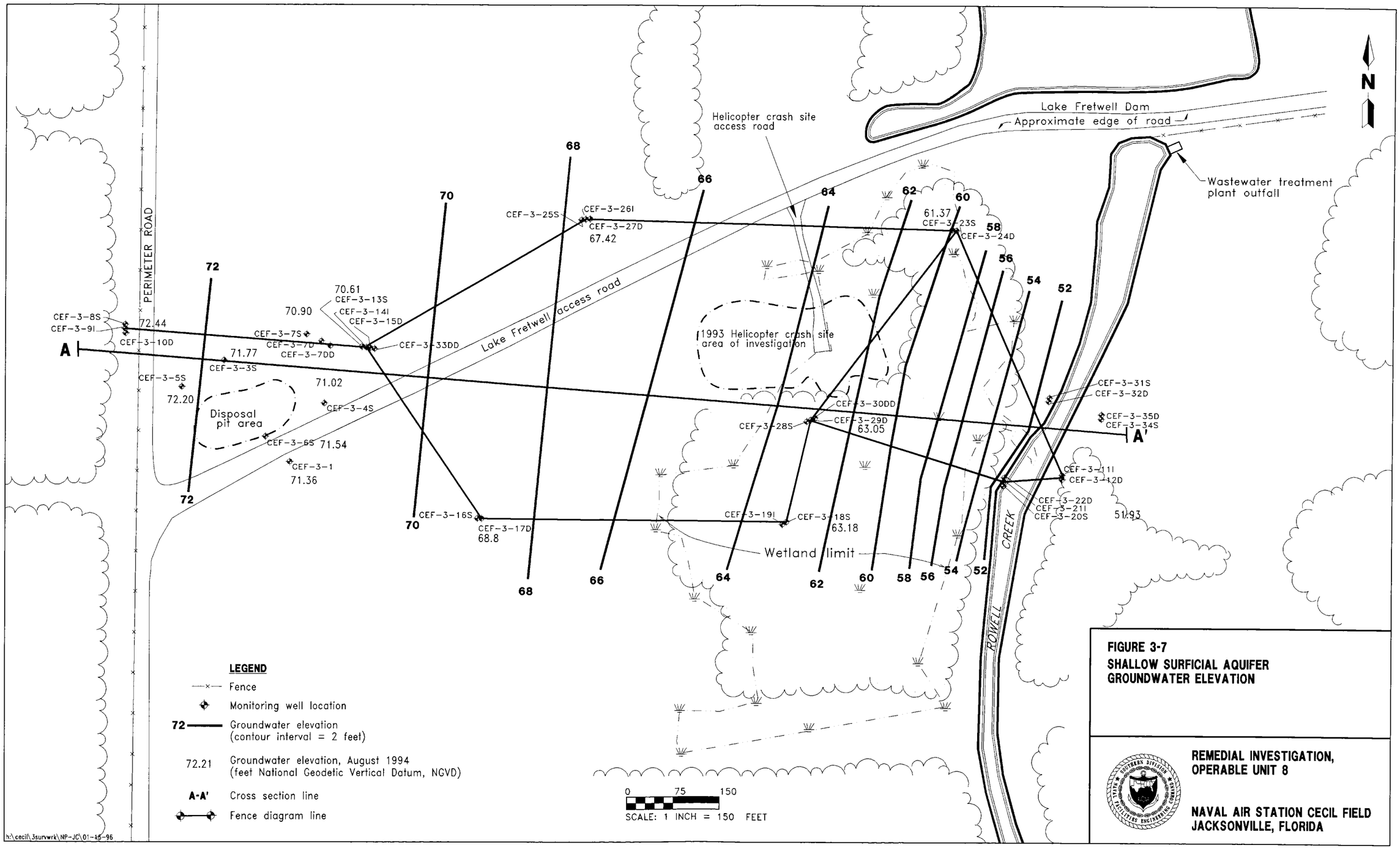
SCALE: 1 INCH = 120 FEET

FIGURE 3-6
LITHOLOGIC CROSS SECTION A-A'

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

CECIL\CROSS-AA\NP-JC\01-16-96



LEGEND

- Fence
- Monitoring well location
- 72 — Groundwater elevation (contour interval = 2 feet)
- 72.21 Groundwater elevation, August 1994 (feet National Geodetic Vertical Datum, NGVD)
- A-A' Cross section line
- Fence diagram line

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FIGURE 3-7
SHALLOW SURFICIAL AQUIFER GROUNDWATER ELEVATION

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

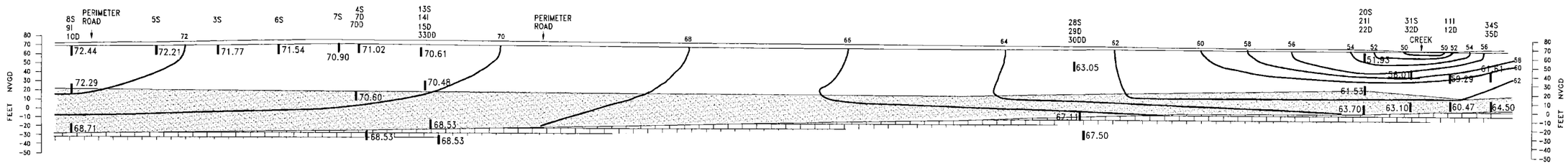
Approximate extent of wetlands

Approximate location of Helicopter crash site

Approximate disposal area

A

A'



LEGEND

- Sand
- Sandy clay, clayey sand, and clay.
- Dolomite
- 72.44 Groundwater elevation in feet NVGD, August 1994
- 72 Groundwater elevation equipotential line (feet NVGD)
- 8S Monitoring well location
- Monitoring well screen
- NGVD National Geodetic Vertical Datum of 1929

NOTE:

See figure 3-7 for location of cross section line A-A'

0 60 120

SCALE: 1 INCH = 120 FEET

FIGURE 3-8
GROUNDWATER ELEVATION CONTOUR AND FLOWPATH CROSS SECTIONS

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

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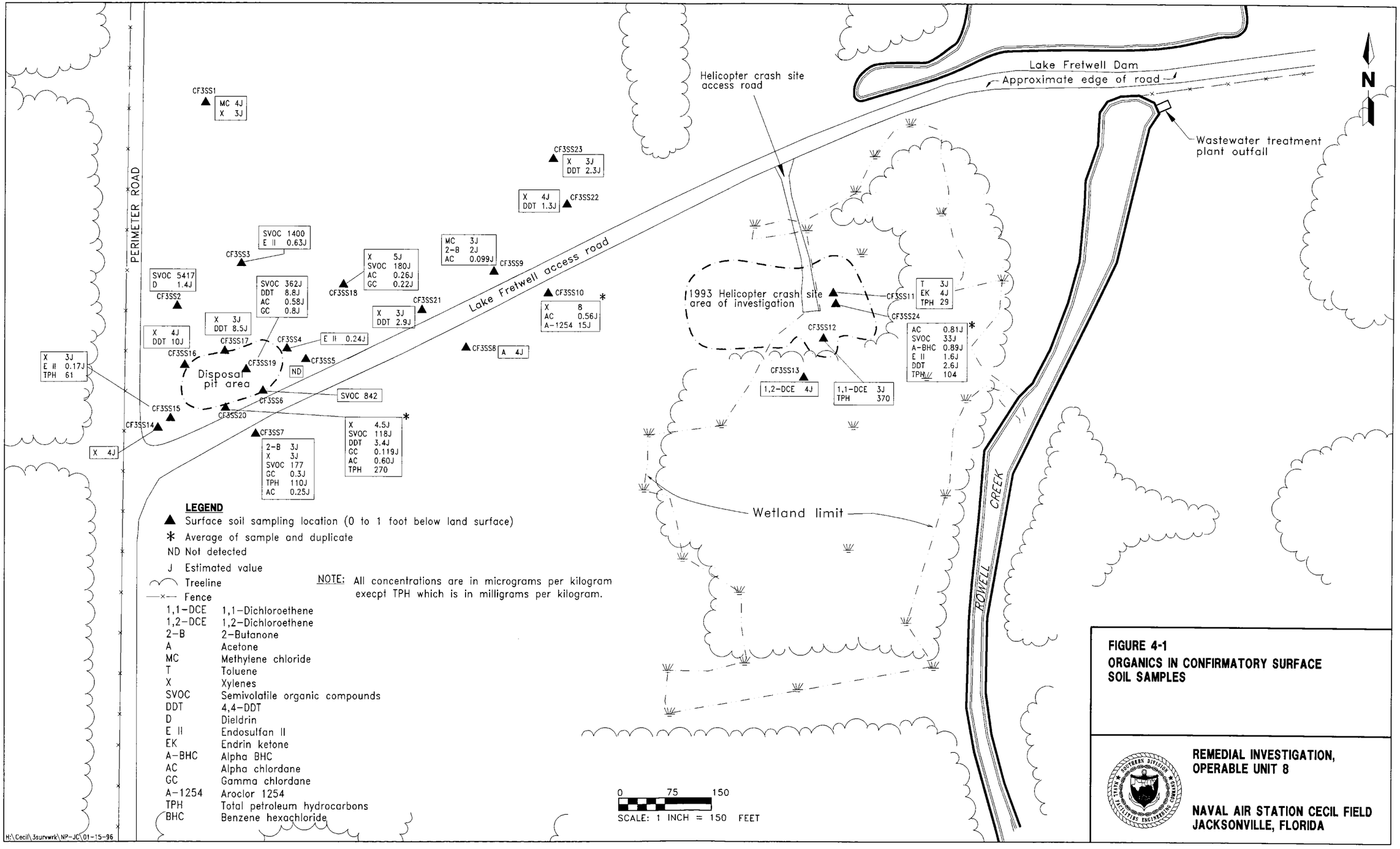

LEGEND

- ▲ Surface soil sampling location (0 to 1 foot below land surface)
- * Average of sample and duplicate
- ND Not detected
- J Estimated value
- Treeline
- —×— Fence

1,1-DCE	1,1-Dichloroethene
1,2-DCE	1,2-Dichloroethene
2-B	2-Butanone
A	Acetone
MC	Methylene chloride
T	Toluene
X	Xylenes
SVOC	Semivolatile organic compounds
DDT	4,4-DDT
D	Dieldrin
E II	Endosulfan II
EK	Endrin ketone
A-BHC	Alpha BHC
AC	Alpha chlordane
GC	Gamma chlordane
A-1254	Aroclor 1254
TPH	Total petroleum hydrocarbons
BHC	Benzene hexachloride

NOTE: All concentrations are in micrograms per kilogram execpt TPH which is in milligrams per kilogram.

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FIGURE 4-1
ORGANICS IN CONFIRMATORY SURFACE SOIL SAMPLES

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

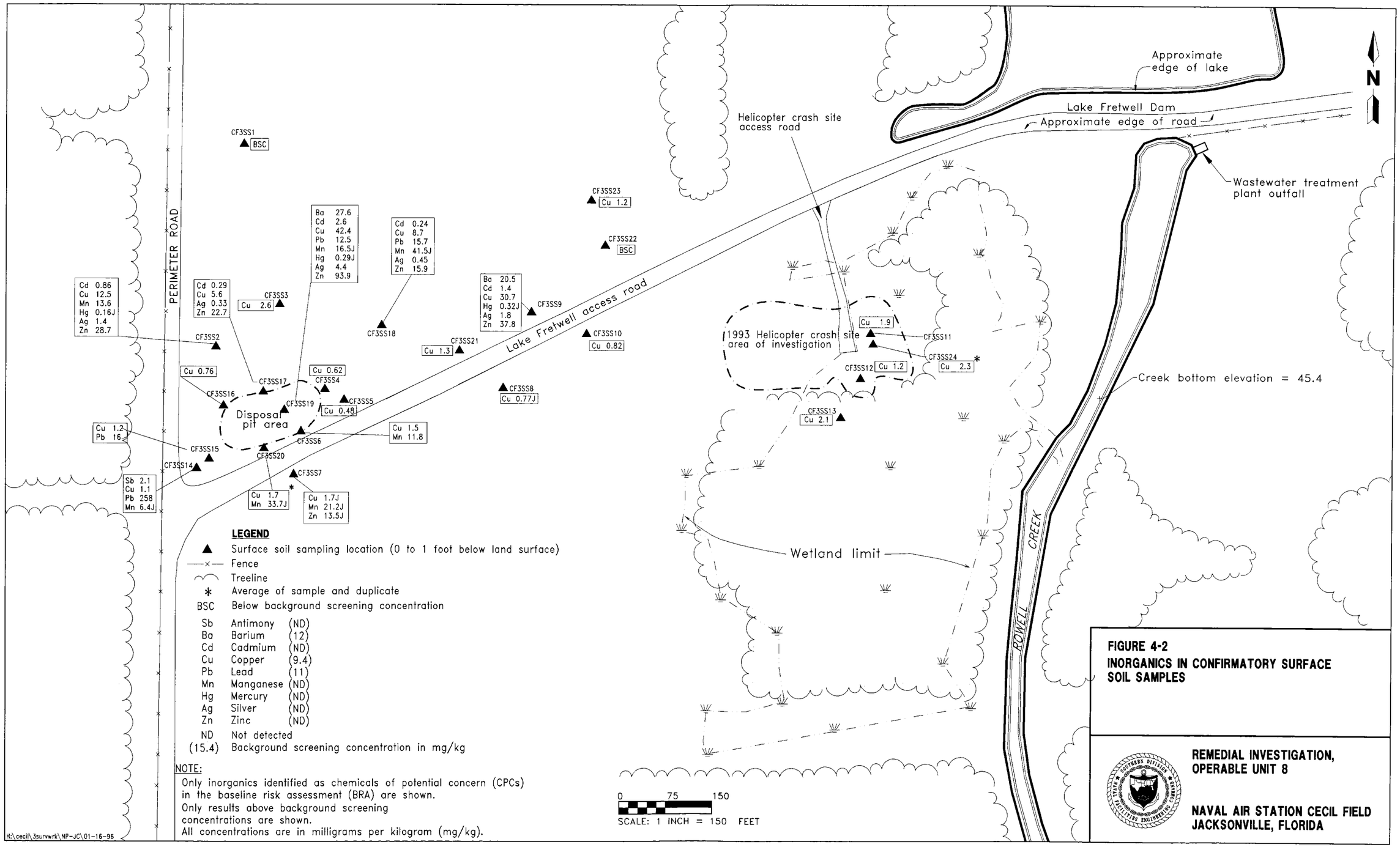
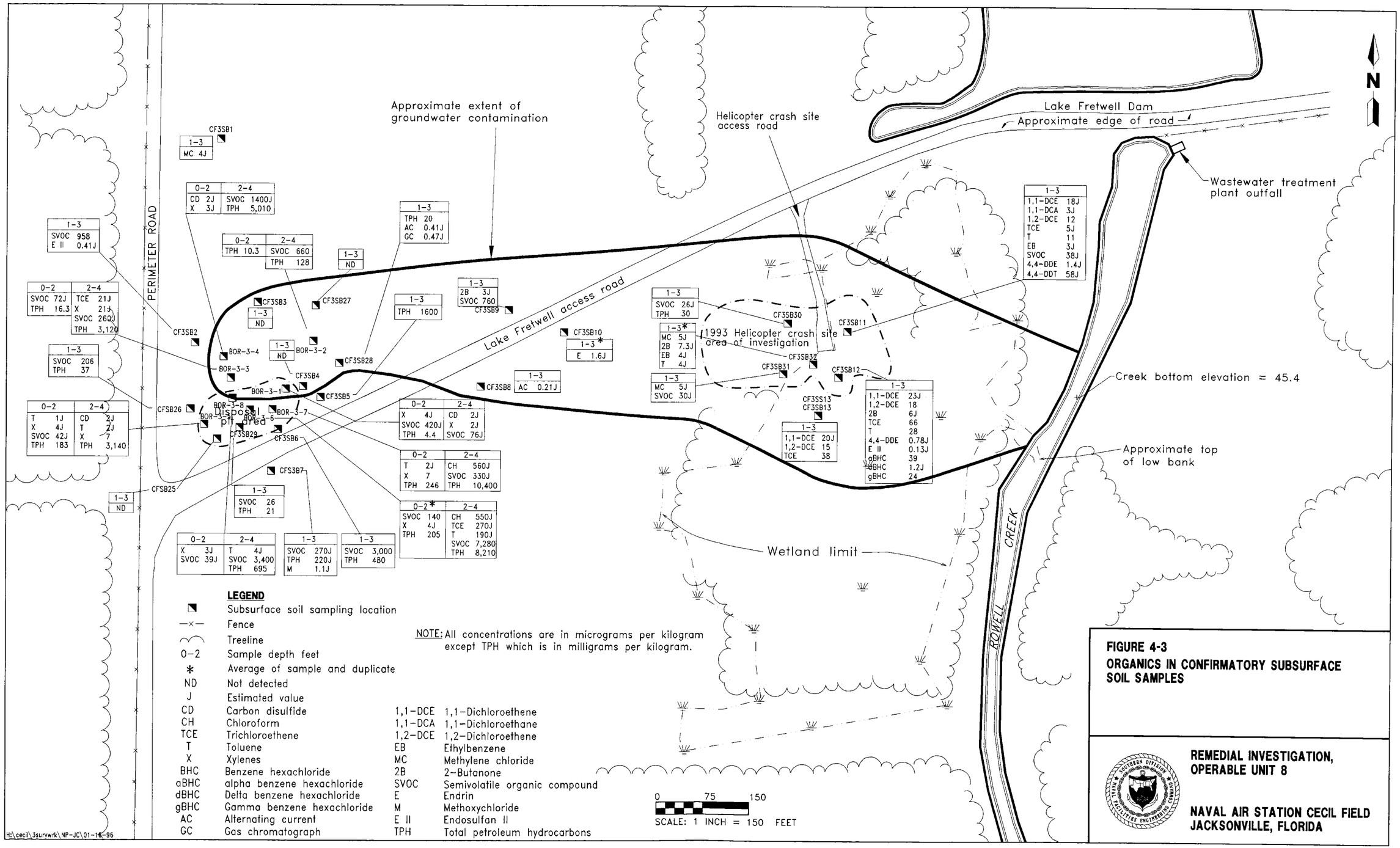


FIGURE 4-2
INORGANICS IN CONFIRMATORY SURFACE SOIL SAMPLES

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA



LEGEND

◥	Subsurface soil sampling location
—x—	Fence
⌒	Treeline
0–2	Sample depth feet
*	Average of sample and duplicate
ND	Not detected
J	Estimated value
CD	Carbon disulfide
CH	Chloroform
TCE	Trichloroethene
T	Toluene
X	Xylenes
BHC	Benzene hexachloride
aBHC	alpha benzene hexachloride
dBHC	Delta benzene hexachloride
gBHC	Gamma benzene hexachloride
AC	Alternating current
GC	Gas chromatograph
1,1-DCE	1,1-Dichloroethene
1,1-DCA	1,1-Dichloroethane
1,2-DCE	1,2-Dichloroethene
EB	Ethylbenzene
MC	Methylene chloride
2B	2-Butanone
SVOC	Semivolatile organic compound
E	Endrin
M	Methoxychloride
E II	Endosulfan II
TPH	Total petroleum hydrocarbons

NOTE: All concentrations are in micrograms per kilogram except TPH which is in milligrams per kilogram.

FIGURE 4-3
ORGANICS IN CONFIRMATORY SUBSURFACE SOIL SAMPLES

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

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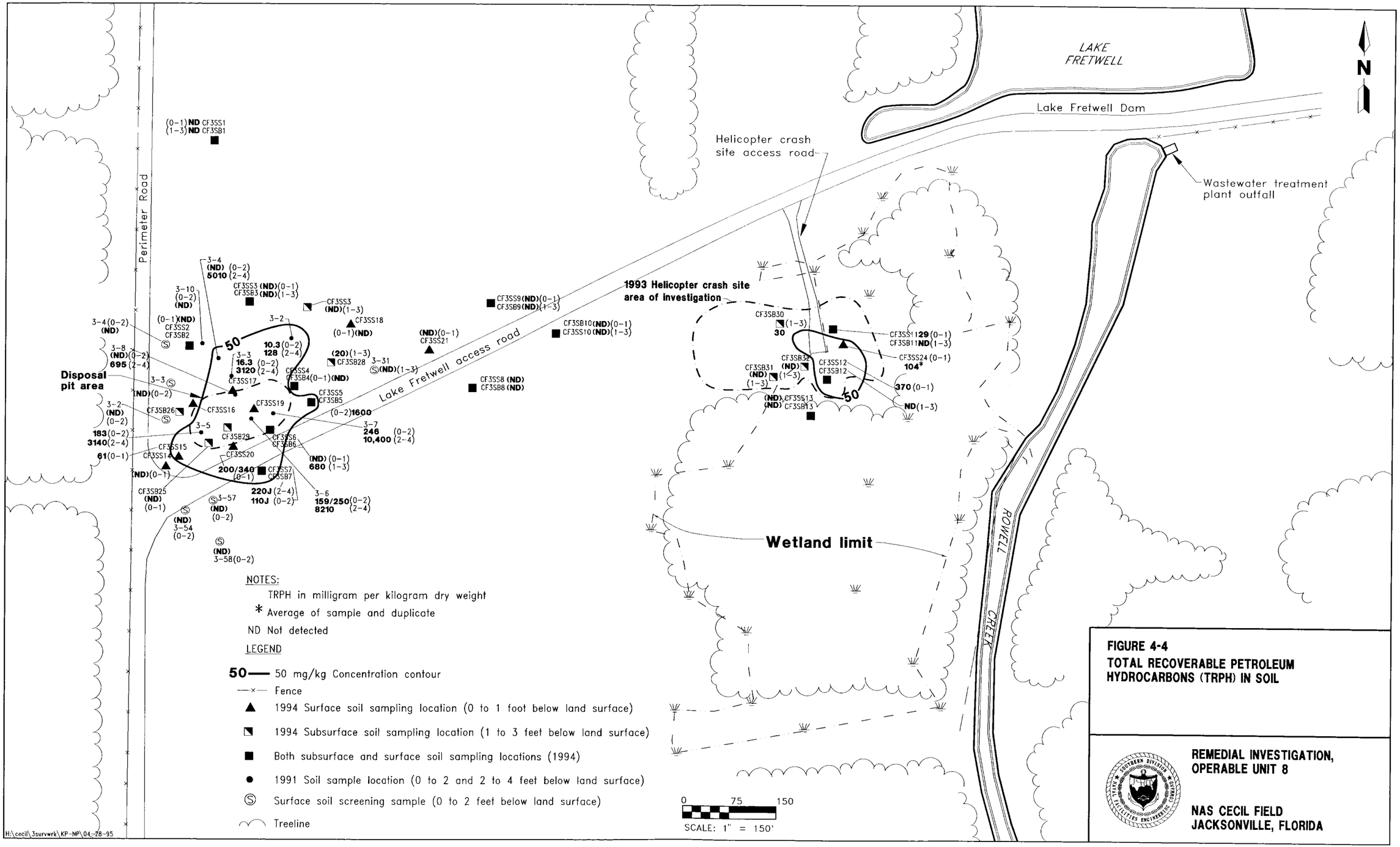

NOTES:

TRPH in milligram per kilogram dry weight

* Average of sample and duplicate

ND Not detected

LEGEND

- 50 — 50 mg/kg Concentration contour
- —×— Fence
- ▲ 1994 Surface soil sampling location (0 to 1 foot below land surface)
- ◹ 1994 Subsurface soil sampling location (1 to 3 feet below land surface)
- ■ Both subsurface and surface soil sampling locations (1994)
- ● 1991 Soil sample location (0 to 2 and 2 to 4 feet below land surface)
- Ⓢ Surface soil screening sample (0 to 2 feet below land surface)
- Treeline

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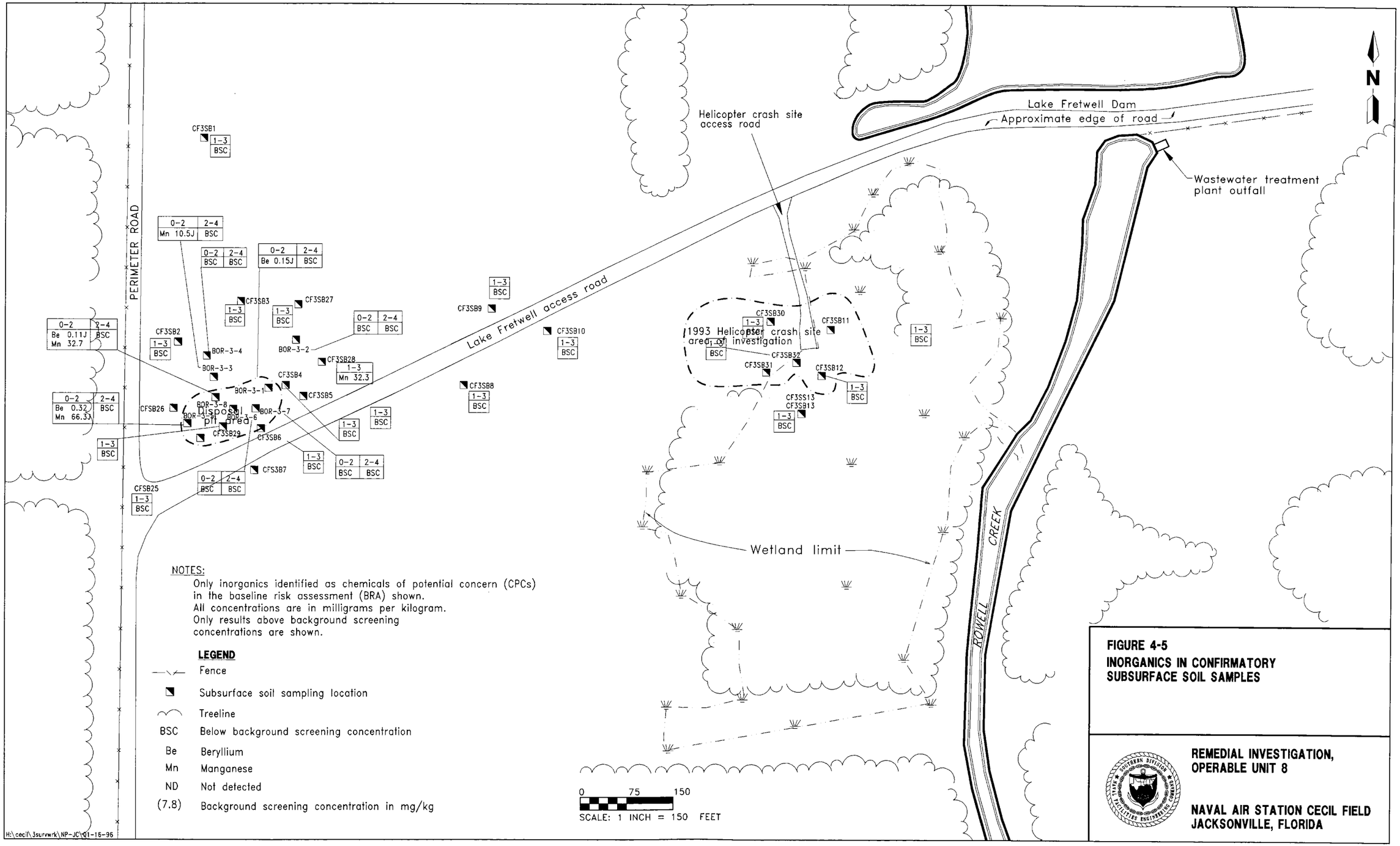
FIGURE 4-4
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) IN SOIL

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA



NOTES:

Only inorganics identified as chemicals of potential concern (CPCs) in the baseline risk assessment (BRA) shown.
All concentrations are in milligrams per kilogram.
Only results above background screening concentrations are shown.

LEGEND

—\/—	Fence
◥	Subsurface soil sampling location
⌒	Treeline
BSC	Below background screening concentration
Be	Beryllium
Mn	Manganese
ND	Not detected
(7.8)	Background screening concentration in mg/kg

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FIGURE 4-5
INORGANICS IN CONFIRMATORY SUBSURFACE SOIL SAMPLES

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

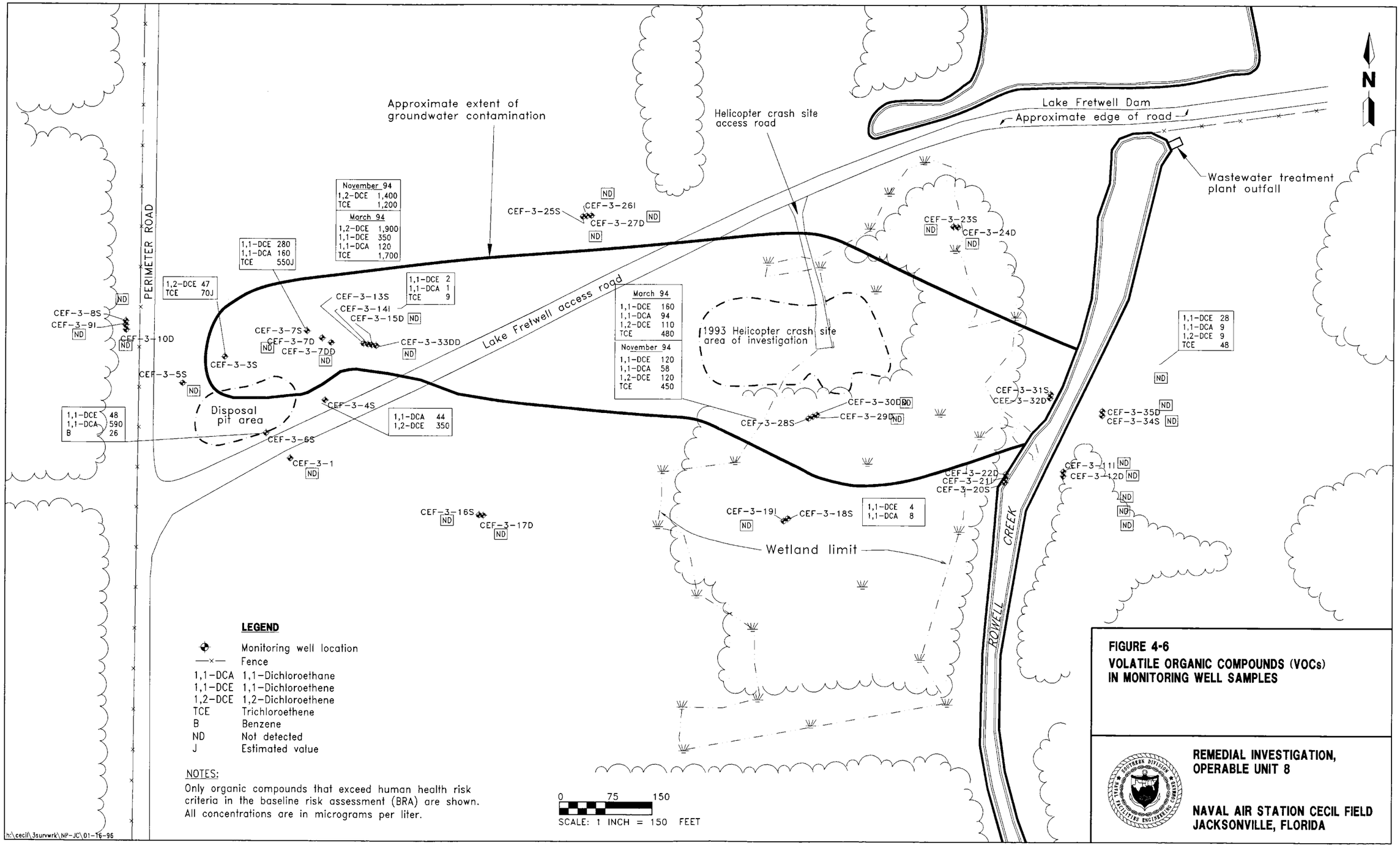
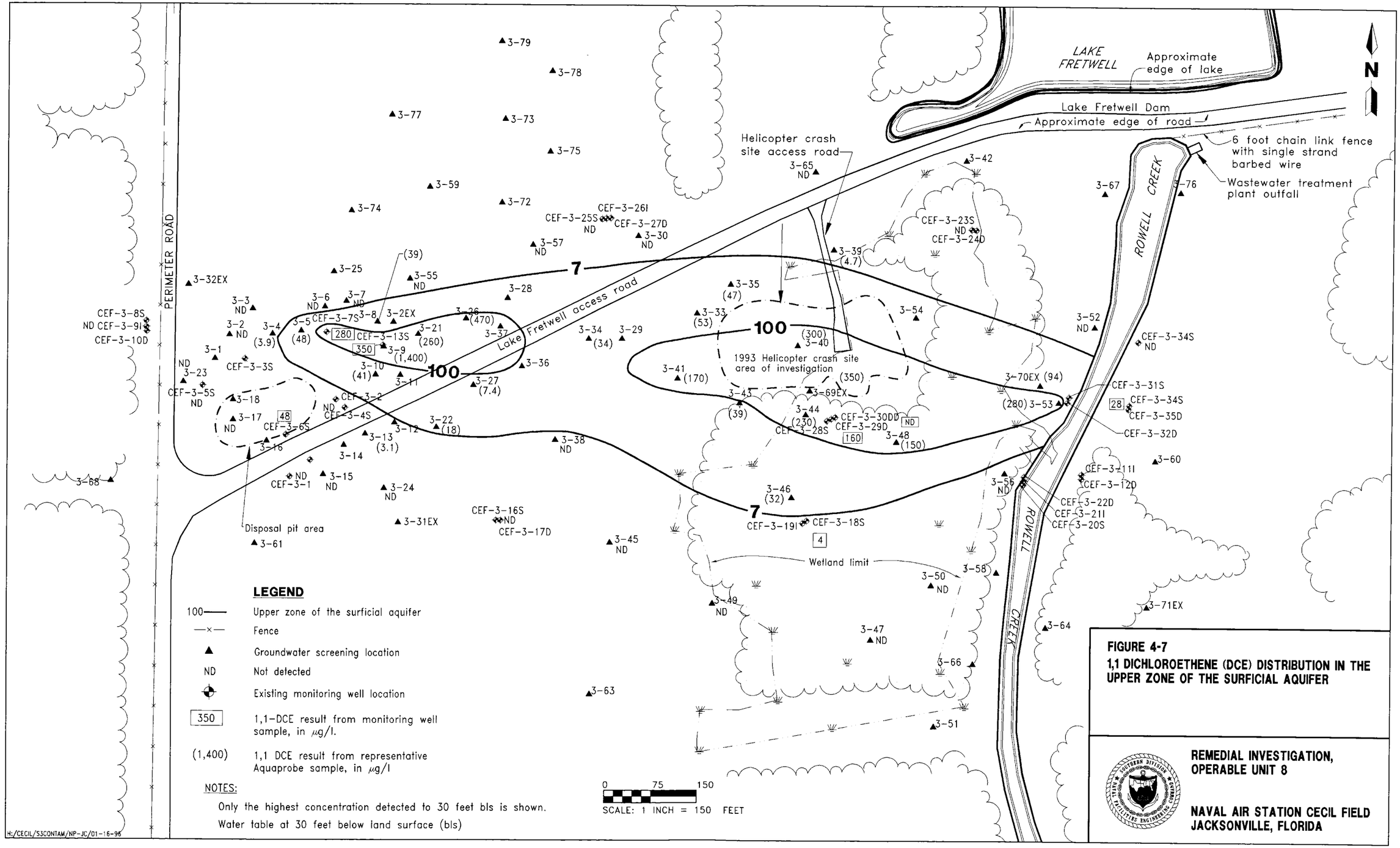


FIGURE 4-6
VOLATILE ORGANIC COMPOUNDS (VOCs) IN MONITORING WELL SAMPLES

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA



LEGEND

100	Upper zone of the surficial aquifer
—x—	Fence
▲	Groundwater screening location
ND	Not detected
⊕	Existing monitoring well location
350	1,1-DCE result from monitoring well sample, in µg/l.
(1,400)	1,1 DCE result from representative Aquaprobe sample, in µg/l

NOTES:

Only the highest concentration detected to 30 feet bls is shown.

Water table at 30 feet below land surface (bls)

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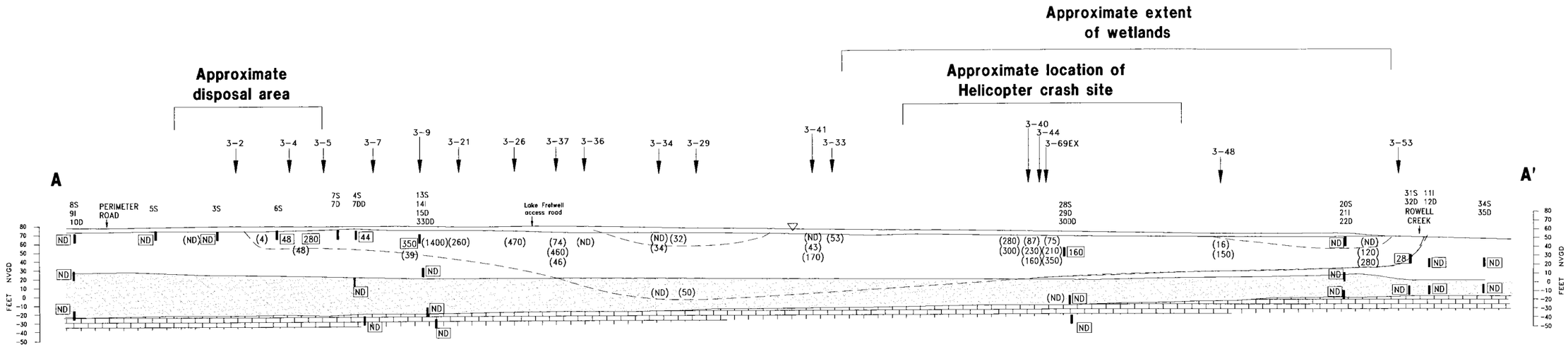
FIGURE 4-7

1,1 DICHLOROETHENE (DCE) DISTRIBUTION IN THE UPPER ZONE OF THE SURFICIAL AQUIFER

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA



LEGEND

- Sandy clay, clayey sand, and clay.
- Dolomite
- Interpreted extent of 1,1-DCE
- 8S — Monitoring well location
- Monitoring well screen
- 3-2 — Aquaprobe location
- [350] — 1,1 DCE result from monitoring well sample, in micrograms per liter (ug/l).
- (48) — 1,1 DCE result from representative Aquaprobe sample, in ug/l

NOTE:

See figure 2-5 for location of cross section line A-A'

0 60 120

SCALE: 1" = 120 FEET

FIGURE 4-8
1,1-DICHLOROETHENE (DCE) VERTICAL DISTRIBUTION ALONG FLOWPATH

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

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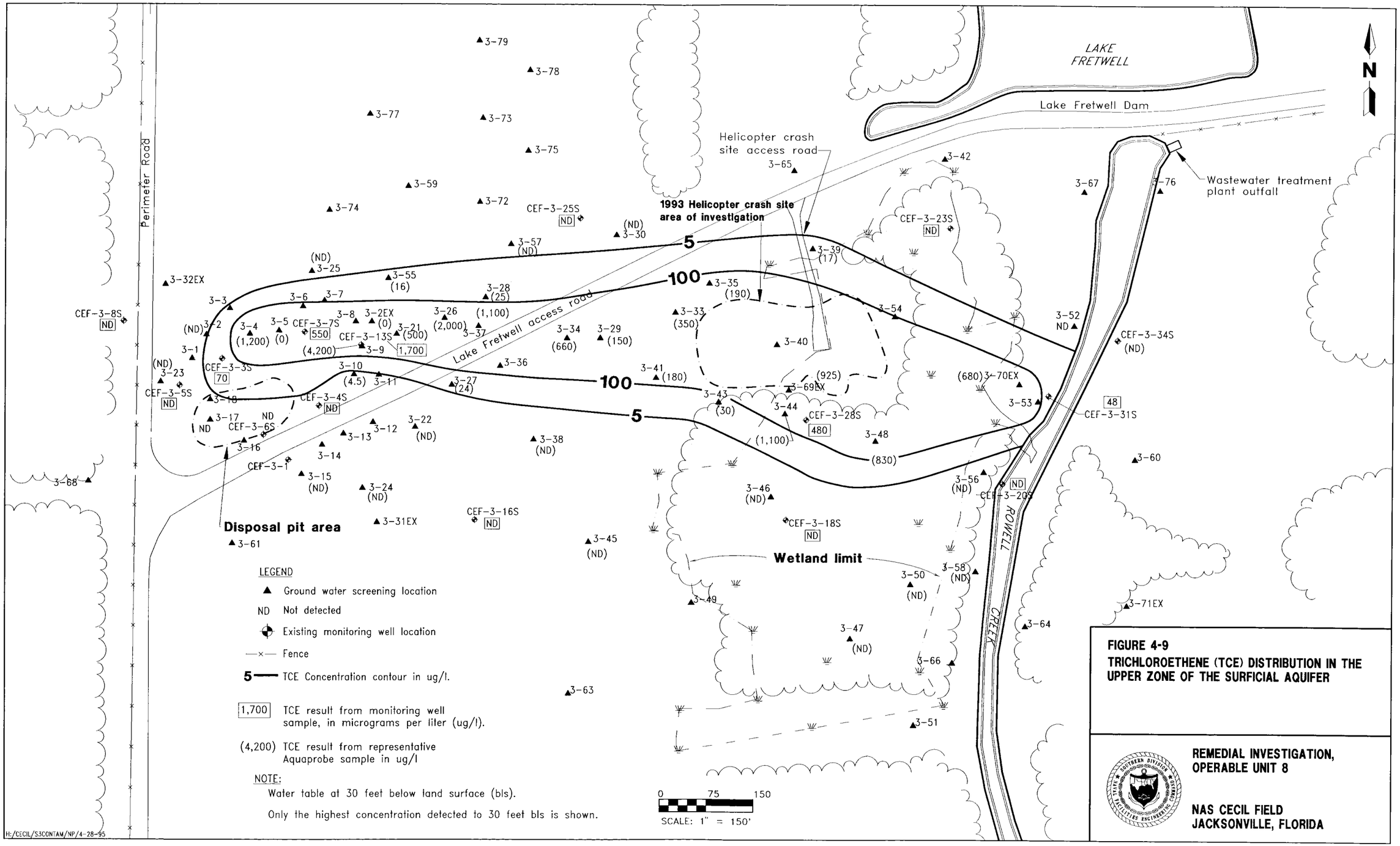

LEGEND

- ▲ Ground water screening location
- ND Not detected
- ⊕ Existing monitoring well location
- —×— Fence
- 5 —— TCE Concentration contour in ug/l.
- [1,700] TCE result from monitoring well sample, in micrograms per liter (ug/l).
- (4,200) TCE result from representative Aquaprobe sample in ug/l

NOTE:

Water table at 30 feet below land surface (bls).

Only the highest concentration detected to 30 feet bls is shown.

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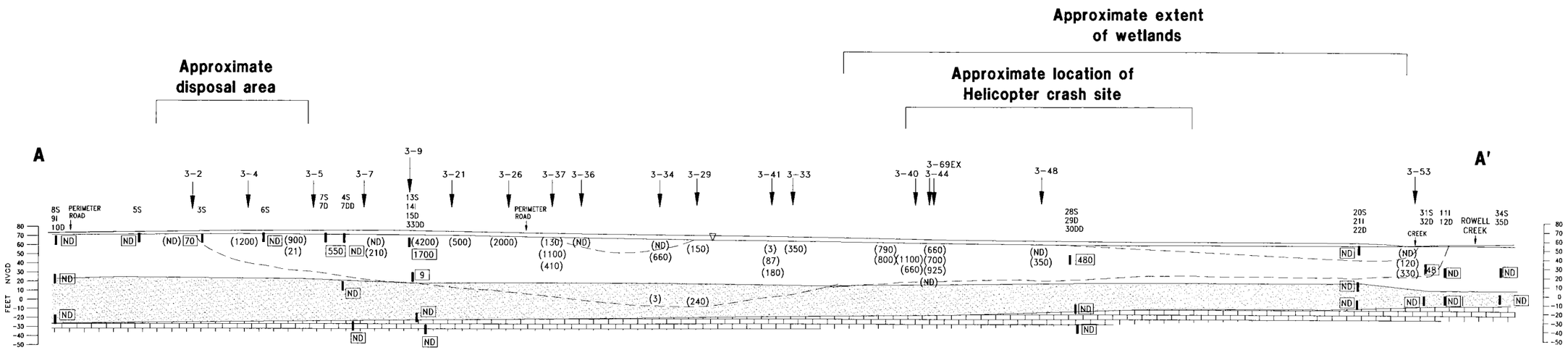
FIGURE 4-9
TRICHLOROETHENE (TCE) DISTRIBUTION IN THE UPPER ZONE OF THE SURFICIAL AQUIFER

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA



LEGEND

- Sand
- Sandy clay, clayey sand, and clay zone.
- Dolomite
- Interpreted extent of TCE
- 550 TCE result from monitoring well sample, in micrograms per liter (ug/l).
- (48) TCE result from representative aquaprobe sample, in ug/l.
- ND Not detected
- 8S Monitoring well location
- Monitoring well screen

NOTE:

See figure 2-5 for location of cross section line A-A'.

0 60 120

SCALE: 1" = 120 FEET

FIGURE 4-10
TRICHLOROETHENE (TCE) VERTICAL DISTRIBUTION ALONG FLOWPATH

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

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Approximate extent of groundwater contamination

Helicopter crash site access road

Lake Fretwell Dam

Approximate edge of road

Wastewater treatment plant outfall

PERIMETER ROAD

Lake Fretwell access road

1993 Helicopter crash site area of investigation

Disposal pit area

Creek bottom elevation = 45.4

ROWELL CREEK

Wetland limit

CEF-3-8S ND
CEF-3-9I BEP 1J
CEF-3-10D BEP 2J
CEF-3-5S N 1J
CEF-3-3S 4MP 12 N 59 BEP 1J
CEF-3-7S 1,4-DB 49J 1,2-DB 350 4MP 4J N 150 BF 3J
CEF-3-7D
CEF-3-7DD
CEF-3-13S November 94 1,4-DB 830J 1,2-DB 3,600J N 240J March 94 1,4-DB 1,300J 1,2-DB 9,800J N 450J
CEF-3-14I
CEF-3-15D
CEF-3-33DD 1,4-DB 170J 1,2-DB 1,100 N 14J P 0.5J DEP 1J
P 1J BEP 2J
CEF-3-4S
CEF-3-6S 4MP 3J N 160
CEF-3-1 4MP 61 N 270 2MN 120 N 1J BEP 2J
CEF-3-16S BEP 2J
CEF-3-17D * BEP 11
CEF-3-25S N 8J 2MN 1J BEP 0.9J
CEF-3-26I ND
CEF-3-27D P 0.8J BEP 0.5J
November 94 1,4-DB 64 1,2-DB 430J March 94 1,4DB 83J 1,2DB 600 N 77J
CEF-3-23S ND
CEF-3-24D ND
CEF-3-30DD BEP 5J
CEF-3-28S
CEF-3-29D ND
CEF-3-31S ND
CEF-3-32D ND
CEF-3-35D ND
CEF-3-34S BEP 6I
P 10 BEP 2J
CEF-3-11I
CEF-3-12D BEP 2J
CEF-3-22D ND
CEF-3-21I ND
CEF-3-20S BEP 3J
CEF-3-19I ND
CEF-3-18S N 0.6J BEP 0.5J

NOTES:

—×—	Fence
⊕	Monitoring well location
1,2-DB	1,2-Dichlorobenzene
1,4-DB	1,4-Dichlorobenzene
4MP	4-Methylphenol
N	Naphthalene
BEP	bis(2-Ethylhexyl)phthalate
BF	Benzo(b)fluoranthene
2MN	2-Methylnaphthalene
ND	Not detected
J	Estimated value

*Average concentration of sample and duplicate.

NOTES:

Only SVOCs that exceed human health risk criteria in the baseline risk assessment (BRA) are shown.

All concentrations are in micrograms per liter.

0 75 150

SCALE: 1 INCH = 150 FEET

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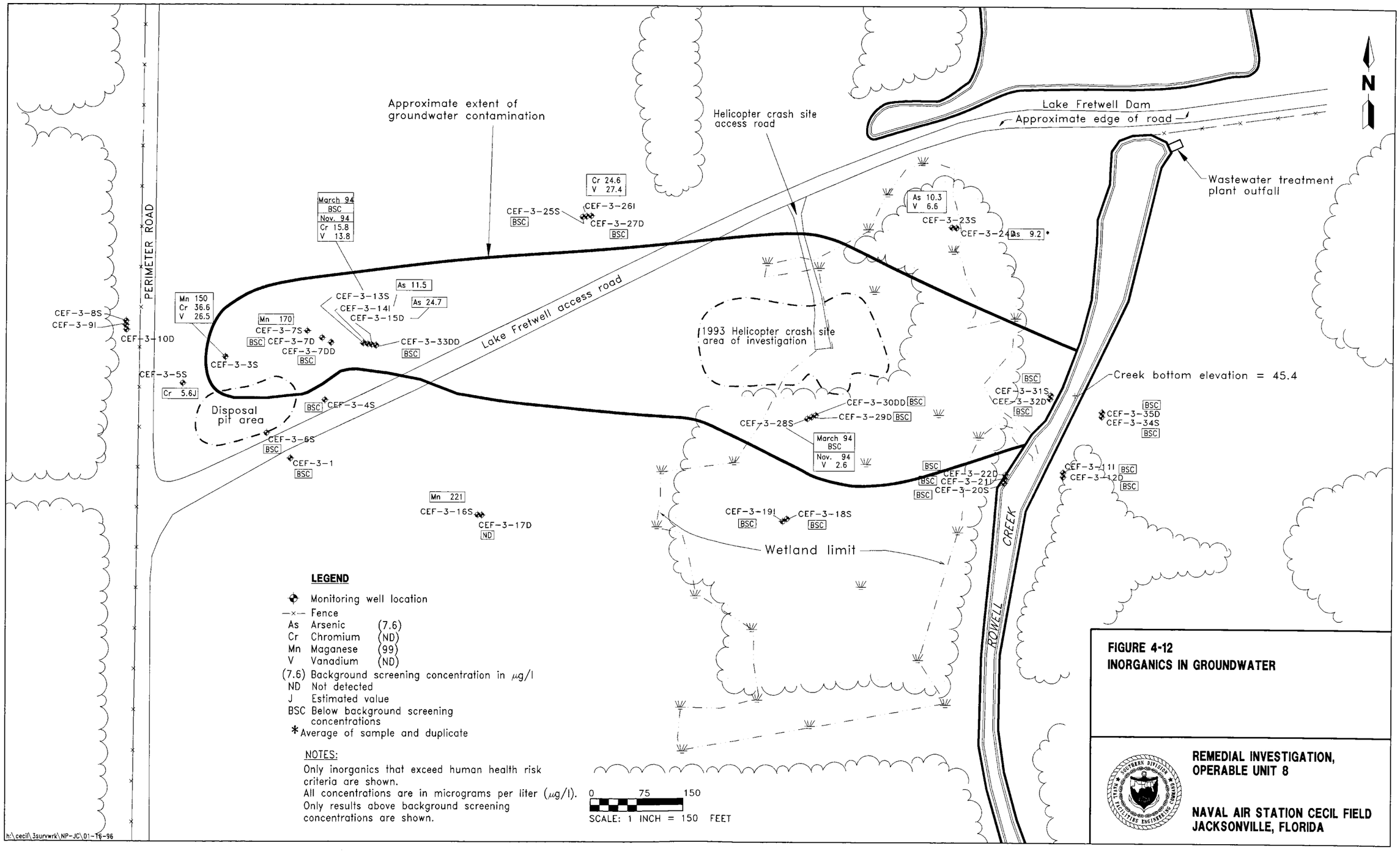
FIGURE 4-11
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs) IN MONITORING WELL SAMPLES

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA



LEGEND

- ◈ Monitoring well location
- —×— Fence
- As Arsenic (7.6)
- Cr Chromium (ND)
- Mn Maganese (99)
- V Vanadium (ND)
- (7.6) Background screening concentration in μg/l
- ND Not detected
- J Estimated value
- BSC Below background screening concentrations
- * Average of sample and duplicate

NOTES:

Only inorganics that exceed human health risk criteria are shown.
All concentrations are in micrograms per liter (μg/l).
Only results above background screening concentrations are shown.

0 75 150

SCALE: 1 INCH = 150 FEET

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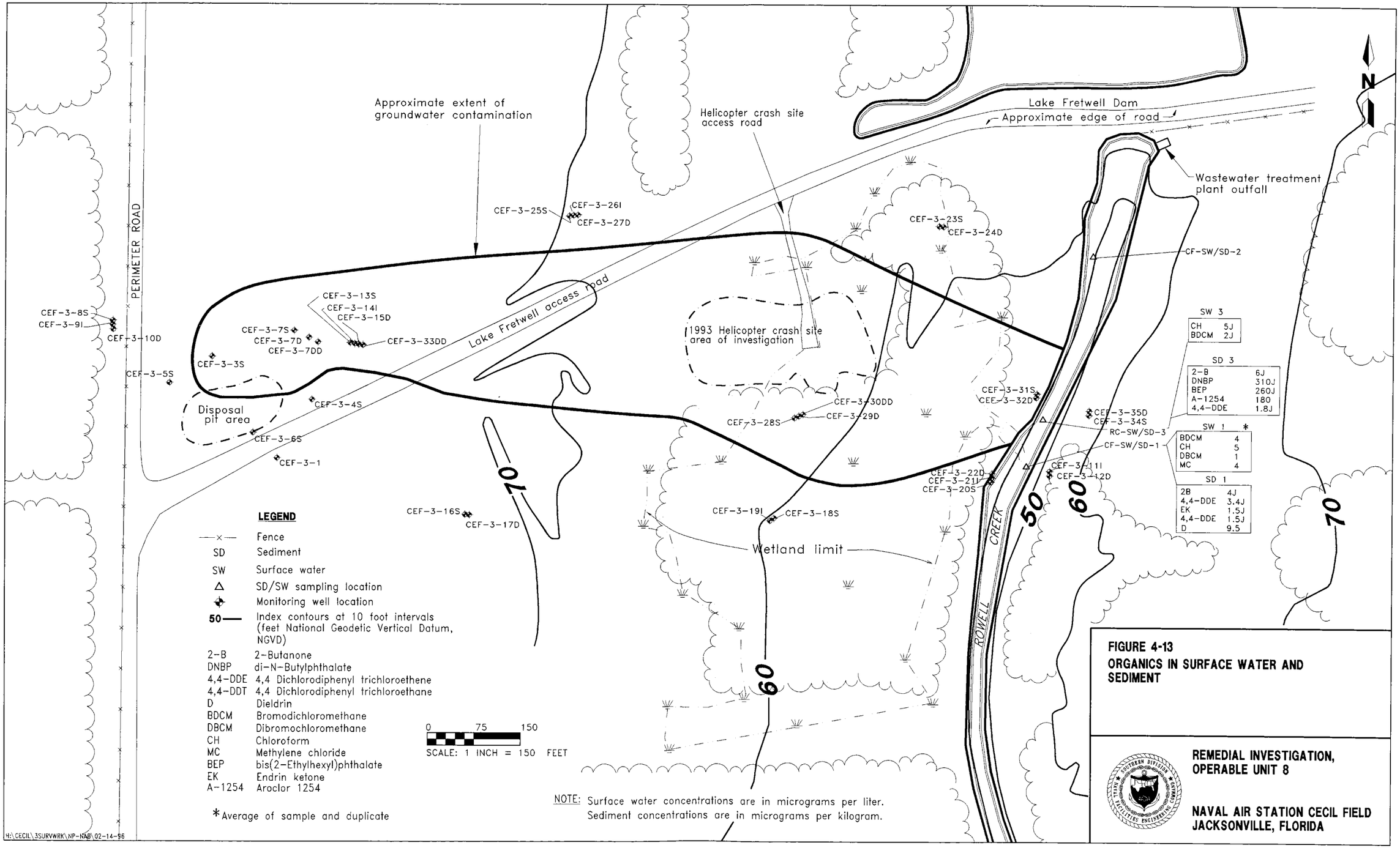
FIGURE 4-12
INORGANICS IN GROUNDWATER

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA



LEGEND

—x—	Fence
SD	Sediment
SW	Surface water
△	SD/SW sampling location
✦	Monitoring well location
50 —	Index contours at 10 foot intervals (feet National Geodetic Vertical Datum, NGVD)
2-B	2-Butanone
DNBP	di-N-Butylphthalate
4,4-DDE	4,4 Dichlorodiphenyl trichloroethene
4,4-DDT	4,4 Dichlorodiphenyl trichloroethane
D	Dieldrin
BDCM	Bromodichloromethane
DBCM	Dibromochloromethane
CH	Chloroform
MC	Methylene chloride
BEP	bis(2-Ethylhexyl)phthalate
EK	Endrin ketone
A-1254	Aroclor 1254

*Average of sample and duplicate

NOTE: Surface water concentrations are in micrograms per liter. Sediment concentrations are in micrograms per kilogram.

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FIGURE 4-13
ORGANICS IN SURFACE WATER AND SEDIMENT

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

Approximate extent of groundwater contamination

Helicopter crash site access road

Lake Fretwell Dam

Approximate edge of road

Wastewater treatment plant outfall

PERIMETER ROAD

Lake Fretwell access road

1993 Helicopter crash site area of investigation

Disposal pit area

Wetland limit

ROWELL CREEK

CEF-3-8S
CEF-3-9I
CEF-3-10D
CEF-3-5S
CEF-3-3S
CEF-3-4S
CEF-3-6S
CEF-3-1
CEF-3-13S
CEF-3-14I
CEF-3-15D
CEF-3-7S
CEF-3-7D
CEF-3-7DD
CEF-3-33DD
CEF-3-25S
CEF-3-26I
CEF-3-27D
CEF-3-16S
CEF-3-17D
CEF-3-28S
CEF-3-29D
CEF-3-30DD
CEF-3-19I
CEF-3-18S
CEF-3-23S
CEF-3-24D
CEF-3-31S
CEF-3-32D
CEF-3-22D
CEF-3-21I
CEF-3-20S
CEF-3-35D
CEF-3-34S
CEF-3-11I
CEF-3-12D

CF-SW/SD-2
RC-SW/SD-3
CF-SW/SD-1

SD3	
Ba	6.9J
Cu	3.4J
Pb	6.2
Zn	14.6

SW3	
Al	141J
Ag	0.24J

SD1
ND

SW1*	
Al	559
Sb	16
Fe	976
Pb	2.4J

50 60 70

LEGEND

- 50 — Index contours at 10 foot intervals (feet National Geodetic Vertical Datum, NGVD)
- —×— Fence
- SD Sediment
- SW Surface water
- △ SD/SW sampling location
- Monitoring well location
- ND Not detected
- (55.6) Background screening concentration in µg/l for SW and mg/kg for SD

		SW	SD
Al	Aluminum	(ND)	(1,140)
Ag	Silver	(ND)	(ND)
Ba	Barium	(55.6)	(ND)
Cu	Copper	(4.6)	(ND)
Fe	Iron	(910)	(526)
Pb	Lead	(ND)	(5.8)
Sb	Antimony	(ND)	(ND)
Zn	Zinc	(ND)	(ND)

NOTES:

Only inorganics identified as chemicals of potential concern in the baseline risk assessment (BRA) are shown.

Only results above background screening conentrations are shown.

*Average of sample and duplicate.

Surface water concentrations are in micrograms per liter (µg/l).

Sediment concentrations are in milligrams per kilogram (mg/kg).

0 75 150

SCALE: 1 INCH = 150 FEET

cecil\3survwrk\NP-JC\OT-16-95

FIGURE 4-14
INORGANICS IN SURFACE WATER AND SEDIMENT

REMEDIAL INVESTIGATION, OPERABLE UNIT 8

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

APPENDIX A

HISTORICAL DATA EVALUATION

A.1 Previous Investigations Investigation of the disposal areas at Site 3 began in 1985. Each completed investigation is discussed in this section in chronological order. Findings, conclusions, and recommendations from these previous investigations are presented. A summary of previous investigations completed at OU 8 is presented in Table A-1.

A.1.1 Initial Assessment Study (IAS) The IAS was completed by Envirodyne Engineers in 1985 under the NACIP program, which was discontinued following the passage of SARA (Section 1.1).

The IAS consisted of the following stages: (1) records search, (2) onsite survey, (3) confirmation study ranking, (4) site ranking, and (5) confirmation study recommendations.

Site 3 was ranked using the Navy's Confirmation Study Ranking System (CSRS, developed by NEESA), which assigns a ranking from 0 to 100 reflecting the characteristics of the waste, potential for migration from the site, and the presence of receptors on and off the facility. After scoring a site, engineering judgement determines the need for a Confirmation Study or for immediate mitigation action. A Confirmation Study was recommended for sites at which (1) sufficient evidence exists to indicate the presence of contamination and (2) the contamination poses a potential threat to human health or to the environment. At sites recommended for further work, CSRS scores are used to rank the sites in a prioritized list for scheduling projects. Site 3 received a ranking of 19 and was recommended for a Confirmation Study.

In the IAS, Site 3 was studied along with Site 4 due to their close proximity; thus, recommendations were made jointly. Site 4 is located immediately north of the pit area at OU 8. The recommendations appearing here are a summary of those in the IAS which only apply to Site 3.

- Install and sample two surficial monitoring wells, one northeast of the site, parallel with the service road, and one southeast of the site, across the service road, to detect contaminant migration toward Lake Fretwell and Rowell Creek.

- Collect one surface water and one sediment sample from Rowell Creek approximately 700 feet downstream from Lake Fretwell to determine whether contamination has migrated to these receiving waters.

Although recommended in the IAS, surface water and sediment samples were not collected during the next investigation, the Resource Conservation and Recovery (RCRA) Facilities Investigation (RFI).

A.1.2 Resource Conservation and Recovery Act (RCRA) Facilities Investigation (RFI) NAS Cecil Field (Harding Lawson Associates, 1988) Following the IAS, an RFI was conducted to comply with the conditions of the Solid Waste Management (SWMUs) portion of the Hazardous and Solid Waste Amendments of 1984 (HSWA) permit and was performed as the beginning of the NACIP Confirmation Investigation. The goals of the RFI were to verify the existence of suspected hazardous constituents at various waste disposal sites, delineate the boundaries of potentially contaminated sites that could contain relatively high concentrations of buried metal, investigate the surficial aquifer and potable water supply wells for the presence of hazardous constituents, and investigate selected surface areas for possible contamination. In addition to this investigation serving as an RFI in accordance with the conditions of the SWMU-related portion of the HSWA and RCRA permit for NAS Cecil Field, it also was performed as the beginning of the NACIP Confirmation Investigation.

Activities, findings, and recommendations presented in the RFI are presented below for OU 8.

- The precise location of the disposal pit could not be determined due to the featureless landscape of the site. Vegetation at the site consisted primarily of low weeds and briers. Debris, consisting of soil, grating, wire, etc., was observed along the north side of the service road.

- A magnetometer survey was completed, and no anomalies were found. A very low frequency (VLF) sensor detected higher than background conductivity over two areas of the site, one on the north side and a smaller one on the south side. The readings on the north side

were attributed to the disposal pit; the readings from the south side may represent a smaller secondary disposal pit.

- Two groundwater monitoring wells were installed and sampled, one east and one southeast of the site. Each well had a screened interval of greater than 30 feet. Water elevations indicated a southwest groundwater flow, contrary to what was anticipated. A "mounded" condition is speculated due to the closure of the oil-sludge pit with an unspecified soil.

- The RFI placed Site 3 into the category of "Sites for Which Corrective Action is Recommended." It is advised that the study plan address the lateral and vertical extent, as well as concentrations, of the hazardous constituents found at the site.

A.1.3 Remedial Investigation/Feasibility Study (RI/FS) Workplan for OUs 1, 2, and 7 (ABB-ES, 1991) The purpose of the workplan was to summarize existing data for OU 8, to define RI/FS objectives, and to propose an investigative program to achieve those objectives. The investigation outlined in the approved workplan for OUs 1, 2, and 7 was executed in the fall of 1991.

Samples of groundwater collected from OU 8 were analyzed for full Target Compound List (TCL) organics and Target Analyte List (TAL) metals.

Several data gaps were identified following the 1991 investigation. These consisted primarily of data needed to assess the nature and extent of soil and groundwater contamination. A technical memorandum for supplemental sampling was subsequently prepared to address these data needs.

A.1.4 Technical Memorandum for Supplemental Sampling (TMSS) (ABB-ES, 1992) The TMSS was prepared to satisfy the scope of the field work and supporting rationale necessary to fill data gaps identified in the 1991 investigation. The TMSS served as a supplement to the workplan for Operable Units 1, 2, and 7 (ABB-ES) and the RI/FS objectives outlined in the original workplan.

The supplemental investigative activities outlined in the TMSS consisted of a screening program for soil and groundwater at OU 8 and an estimated

confirmatory sampling program. Estimates of the number of wells, soil borings, and surface soil samples for OU 8 were proposed, with sampling locations to be identified following completion of the screening program.

Confirmatory locations for sampling at OU 8 were selected between the Navy, FDEP, and USEPA via a series of memoranda and conference calls. Following the finalization of these locations for a particular media, a follow-up memorandum was issued to SOUTHNAVFACENGCOM and the regulatory agencies to document the agreement.

References:

ABB-ES, 1991, Remedial Investigation/Feasibility Study Workplan, Naval Air Station Cecil Field, Operable Units 1, 2, and 7: prepared for Southern Division, Navy Facilities Engineering Command (SOUTHNAVFACENGCOM).

ABB-ES, 1992, Technical Memorandum for Supplemental Sampling at Operable Units 1, 2, & 7. Naval Air Station, Cecil Field, Jacksonville, Florida; Tallahassee, Florida; September.

Envirodyne Engineers, 1985, Initial Assessment Study of Naval Air Station Cecil Field, Jacksonville, Florida; prepared for Naval Energy and Environmental Support Activity (NEESA), NEESA 13-073, Port Hueneme, California; July.

Harding Lawson Associates, Inc., 1988, Draft Final RCRA Facilities Investigation Report, Naval Air Station, Cecil Field, Jacksonville, Florida: prepared for Department of the Navy, Southern Division, Charleston, South Carolina; March.

Table A-1
Findings and Conclusions from Previous Investigations

Remedial Investigation
Operable Unit 8, Site 3, NAS Cecil Field
Jacksonville, Florida

Previous Study	Tasks Completed	Findings	Recommendations
Initial Assessment Study (IAS) (Envirodyne, 1985)	1. Records search 2. Onsite survey 3. Estimate waste quantities 3. Site ranking 4. Recommendations for future study	1. Summarized available historical information for Site 3. 2. Identified waste oil, fuel, tank sludge, solvents, paint, paint strippers. 3 Estimated waste quantities: fuel, oil and sludge contaminated water: 310,000 gallons waste paint: 4,200 gallons spent solvents: 110,000 gallons petroleum and organic lubricants (POL) wastes: 440,000 gallons paint thinners: 20,000 gallons	1. Confirmation Investigation recommended at Site 3. 2. Install and sample two surficial wells monitoring wells. 3. Collect one surface water and one sediment sample from Rowell Creek.
RCRA Facility Investigation (RFI) (Harding Lawson Associates, 1988)	1. Site reconnaissance. 2. Geophysical survey. 3. Monitoring well installation (2 wells). 4. Collection of groundwater samples.	1. Groundwater: 1,1-dichloroethane 210 $\mu g/\ell$ 1,1-dichloroethene 110 $\mu g/\ell$ ethylbenzene 10 $\mu g/\ell$ toluene 8 $\mu g/\ell$ 1,1,1-trichloroethane 88 $\mu g/\ell$ 4-methylphenol 29 $\mu g/\ell$ bis(2-ethylhexyl)phthalate 19 $\mu g/\ell$ naphthalene 280 $\mu g/\ell$ 2-methylnaphthalene 190 $\mu g/\ell$ chromium 90 $\mu g/\ell$ lead 164 $\mu g/\ell$	1. Corrective action is recommended

See notes at end of table.

DRAFT

Table A-1 (Continued)
Findings and Conclusions from Previous Investigations

Remedial Investigation
Operable Unit 8, Site 3, NAS Cecil Field
Jacksonville, Florida

Previous Study	Tasks Completed	Findings	Recommendations
RI/FS Workplan for OUs 1, 2, and 7 (ABB-ES, 1991)	1. Summarize existing data. 2. Define RI/FS objectives. 3. Develop sampling approach to achieve RI/FS objectives.	No sampling completed.	1. Well installation and sampling. 2. Soil sampling. 3. Surface water and sediment sampling.
Technical Memorandum for Supplemental Sampling (ABB-ES, 1992c)	1. The 1991 field program completed. 2. Summary of contamination detected in soil, sediment, surface water, and groundwater. 3. Identification of additional information required to characterize site contamination.	1. Findings discussed in Chapter 4.0, Nature and Extent of Contamination. 2. Hazardous constituents detected in soil and groundwater at both sites. 3. Horizontal and vertical extent of contaminants not fully characterized at either site. 4. Data gathered not sufficient to complete a Baseline Risk Assessment.	1. Complete screening program to characterize extent of detected contaminants in soil and groundwater. 2. Complete confirmation sampling, based on results of screening program. 3. Number and location of samples (per media) to be finalized with agency approval.

Notes: RCRA = Resource Conservation and Recovery Act.
$\mu g/\ell$ = micrograms per liter.
RI/FS = Remedial Investigation/Feasibility Study.

DRAFT

APPENDIX B

BACKGROUND SAMPLING PROGRAM

INTRODUCTION

In both the human health risk assessment (HHRA) and the ecological risk assessment (ERA), contaminants must be selected for inclusion in the risk estimation process. Contaminants for which data of sufficient quality are available for use in the risk assessment and that are potentially site-related may be defined as human health or ecological contaminants of potential concern (CPCs). These contaminants are generally a subset of all compounds detected in the various media at the site, and are selected based on concentration and frequency of detection; physical, chemical, and toxicological characteristics; and comparison of detected values to background (and associated blanks) and appropriate regulatory standards and guidelines. This appendix focuses on the data that were collected for use in the comparison to background. A summary of the information is presented below. More detailed information is located in the remedial investigation (ABB-ES, 1994a).

Generally, for each medium at each site, the following criteria are used to exclude detected analytes from the list of CPCs:

A. The maximum reported site concentration is less than 2 times the reported average background concentration (inorganics only) for the human health and ecological assessments in surface soils, upgradient groundwater, and upstream surface water/sediments (USEPA, 1993a).

B. The maximum reported site concentration is less than 1 times the reported average background concentration (organics only) for the ecological assessment in surface soils, upgradient groundwater, and upstream surface water/sediments.

The following paragraphs describe the background database used in the BRA for surface soils. Groundwater, and surface water/sediment are discussed in the main text of the document in Section 3.4.

Surface Soils. The purpose of the background network is to establish concentrations (or concentration ranges) for inorganic parameters that occur naturally in surface soils. Sampling locations were selected on the NAS Cecil Field installation that have not been affected by past waste disposal or handling practices. A detailed review of the "Soil Survey of the City of Jacksonville, Duval County, Florida" (U.S. Department of Agriculture (USDA, 1978) was completed to guide the selection of background surface soil sampling locations. The Soil Survey (USDA, 1978) presents a general soil map for Duval County. Soils in Duval County have been divided into four groups: soils of the sand ridges, soils of the flatwoods, soils of the hardwood and cypress swamps, and the soils of the tidal marsh. Cecil Field, located in southwestern Duval County, is on the soils of the flatwoods.

Flatwoods soils are comprised of the (1) Leon-Ortega, (2) Leon-Ridgeland-Wesconnett, and (3) Pelham-Mascotte-Sapelo map units. Only the Leon-Ridgeland-Wesconnett series and the Pelham-Mascotte-Sapelo series are present at NAS Cecil Field. Some isolated areas of the Leon-Ortega are present in southwestern Duval County, but these lie to the east of NAS Cecil Field.

The Leon-Ridgeland-Wesconnett occupies the eastern part of NAS Cecil Field and the Pelham-Mascotte-Sapelo occupies the western. The majority of the Potential Sources of Contamination (PSCs) identified at NAS Cecil Field are located on the western part of the facility and are mapped as Pelham-Mascotte-Sapelo.

The Soil Survey (USDA, 1978) has further divided the Leon-Ridgeland-Wesconnett and the Pelham-Mascotte-Sapelo into specific soil types based on soil characteristics. These characteristics include the inclination of slopes formed by the soils, the permeability of the soils, and the composition (e.g., sandy, loamy, etc.) of the soil horizons present. A total of five specific soil units have been identified at OUs 1, 2, 7, and 8. These specific soil units include the:

- Albany Fine Sand,
- Arents and Arents-Sanitary Landfill,
- Ridgeland Fine Sand,
- Urban Land, and
- Wesconnett Fine Sand.

Arents and Arents-Sanitary Landfill are considered as one specific soil unit as both are disturbed soils and both Sites 1 and 2 were landfills.

As presented in the Technical Memorandum for Supplemental Sampling (TMSS) (ABB-ES, 1992) at OUs 1, 2, 7, and 8, a total 15 samples (excluding quality assurance/quality control [QA/QC]) were collected to generate a data base for the concentrations of naturally occurring inorganic parameters (metals) in the surficial soils at NAS Cecil Field. Three general locations were selected (in the TMSS) for the collection of the background samples, one east of the facility, one to the west, and one south of the facility. A brief discussion of the selection the sampling locations is presented.

The USCS soil maps were used to estimate the percentage of each site included in OUs 1, 2, 7, and 8 occupied by a particular soil unit. Table B-1 presents the sites and the percentage of each site's area occupied by a specific soil unit.

One of the five specific soil units, Urban Land, was not considered during the selection of background soil sampling locations. OU 7, Site 16, is mapped as being on the Urban Land specific soil unit. The composition of the individual soils mapped as Urban Land is not known, but may vary greatly based on the land use in developed parts of the facility. For this reason, site-specific background samples was used to characterize existing background concentrations for inorganic parameters at Site 16.

As shown by the percentages in Table B-1, Site 2 is predominantly Arents-Sanitary Landfill, and Site 1 is mapped as primarily Arents. That the landfill at Site 1 is mapped as Arents and not Arents-Sanitary Landfill is not considered significant. This division (between Arents and Arents-Sanitary Landfill) probably results from the fact that by the time the Soil Survey was completed (via aerial photography), Site 1 had revegetated and did not appear to be a landfill, but did appear to be reworked soil.

The final locations for collection of background surface soil samples were selected in the following manner. Analysis of the percentage data (Table B-1) showed that the area occupied by the sites of OUs 1, 2, and 8 (OU 7 was removed) was distributed more or less evenly between the Albany Fine Sand, Arents, and Ridgeland Fine Sand with minor representation of the Wesconnett Fine Sand (at OU 1). Based on this distribution, the 15 samples were distributed among the soil units in the following manner:

- Albany Fine Sand, five samples;
- Arents, four samples;
- Ridgeland Fine Sand, five samples; and
- Wesconnett Fine Sand, one sample.

Table B-1
Percentage of Each Site Occupied by Specific Soil Unit

Appendix B

NAS Cecil Field, Jacksonville, Florida

Site	Soil Unit				
	Albany Fine Sand	Arents	Ridgeland Fine Sand	Urban Land	Wensconnett Fine Sand
Site 1		85%	5%		10%
Site 2		95%			5%
Site 3	85%	5%	10%		
Site 4	90%		10%		
Site 5		50%	50%		
Site 17			100%		
Site 16				100%	

Following the determination of background sample distribution between the various soil units present, the maps presented in the Duval County Soil Survey (USDA, 1978) were evaluated in conjunction with the three general background sampling locations from the TMSS (east, west and south). Tentative sampling locations from each of the soil units were selected. Following the selection of the tentative locations, historical aerial photographs were reviewed to look for obvious signs of human activities in the targeted areas. The only area that showed obvious signs of activity was the Arents locations; soil must be reworked to be designated as Arents (the Arents background locations is discussed below).

Finally, field reconnaissance of the selected locations was completed to check for recent activity and evaluate the accessibility of the locations. The accessibility of the locations was important as wells would be installed in the immediately vicinity of the surface soil samples.

Figure B-1 shows the locations selected for inclusion in the background soil network. Figures B-2 through B-7 show the individual sampling locations and the media sampled. Table B-2 summarizes the laboratory analytical program completed for the media sampled. All surface soil samples were collected from a depth of 0 to 12 inches below the land surface (bls). Chemical analytical data from the collection and analysis of background surface soil samples is summarized (detections only) in Table B-3.

Volatile organics compounds (VOCs) were not detected in any of the samples analyzed (VOCs, therefore, do not appear in Table B-3). A total of 4 semivolatile organic compounds (SVOCs) were reported. Three of SVOCs reported (diethylphthalate, di-n-butylphthalate, and bis[2-ethylhexyl]phthalate) are phthalate esters. These phthalate esters are common laboratory contaminants and may not be representative of existing site conditions at the background locations. The fourth SVOCs detected, phenol, was detected at five of the 15 background locations sampled at concentrations ranging from 190J ug/kg (micrograms per kilogram) to 21J ug/kg. The presence of phenol in the surface soil at background locations is not unexpected as phenol (in the low ug/kg levels) is produced by the decomposition of leaf litter.

Surface soil samples were analyzed for TCL pesticides and polychlorinated biphenyls (PCBs). No detections of PCBs were reported during the analysis of background surface soil samples. Four pesticides were reported during the analysis of surface soil samples; six of the 15 locations samples had reported detections. Pesticide detections ranged from a high of 0.97J ug/kg of Endrin to a low of 0.21J ug/kg of 4,4-DDE. No sampling location had more than one pesticide detection reported.

TAL metals analyses were completed on each surface soil sample. Inorganics analyses are presented on Table B-3. Table B-4 presents descriptive statistics for inorganics in surface soil (data from all 15 sampling locations are included on Table B-4).

Because of the various soil types sampled and the various parts of the base present in the background surface soil data base, the surface soil data were analyzed to determine if separate populations were present or if the surface soil data should be considered as a single population. The statistical population analysis consisted of running a Students T-Test a 95 percent confidence interval and comparing soil units from the E, S, and W locations (Figure B-1) in several different combinations. The results of this analysis indicated that the S1 location represented a distinct population and the remaining locations (E1, E2, S2, W1, and W2) could be considered as a single population. The S1 location (Figure B-4) is the Arents background location; Arents was the soil unit mapped for the landfills at OU 1.

To assess if the S1 location represented soil native to the facility or consisted of imported fill, the analyses of surface soil samples from the S1 location were compared with subsurface soil samples. The comparison was completed for analytical results from all intervals sampled (0 to 2, 2 to 4, 4 to 6, and

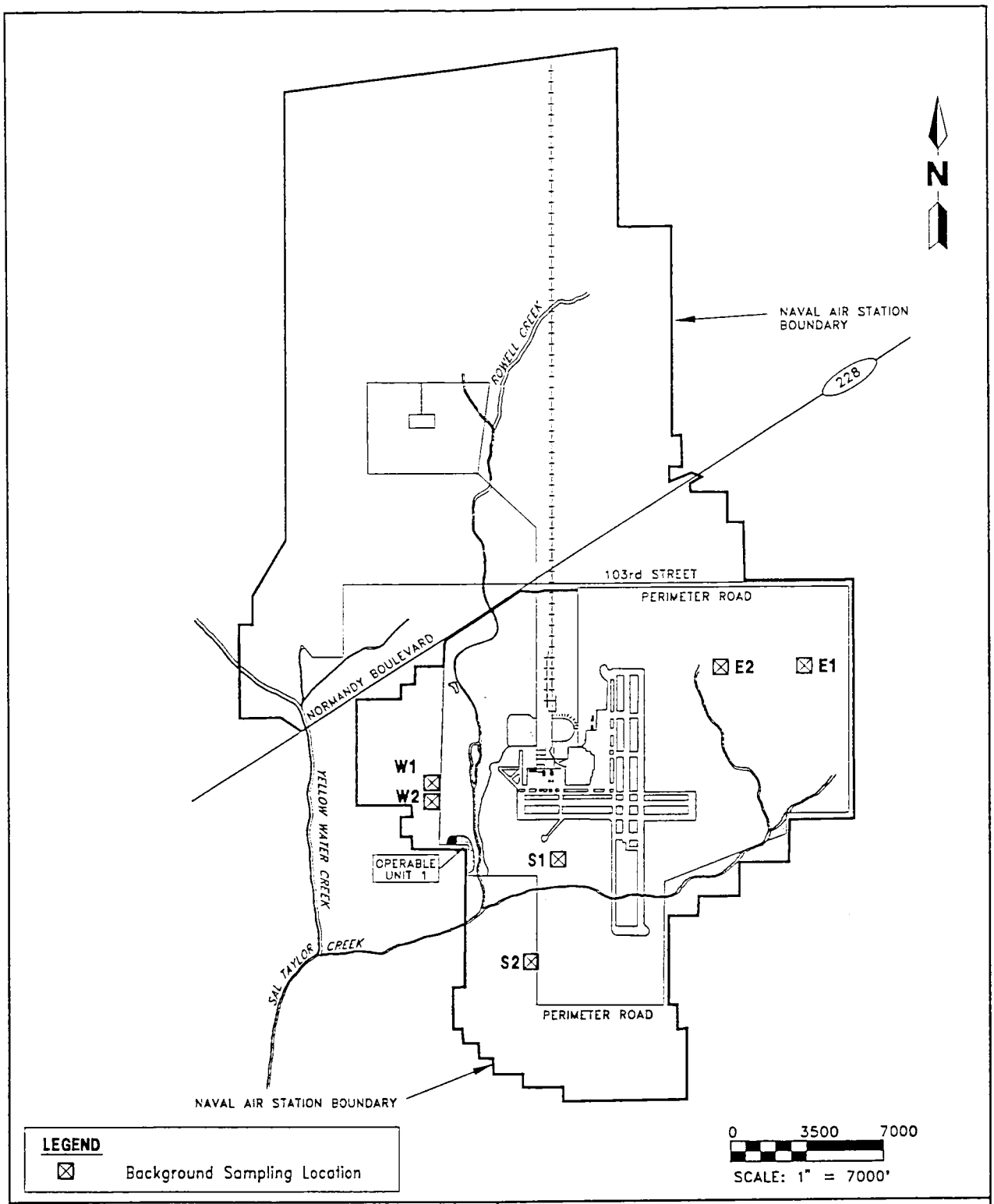


FIGURE B-1

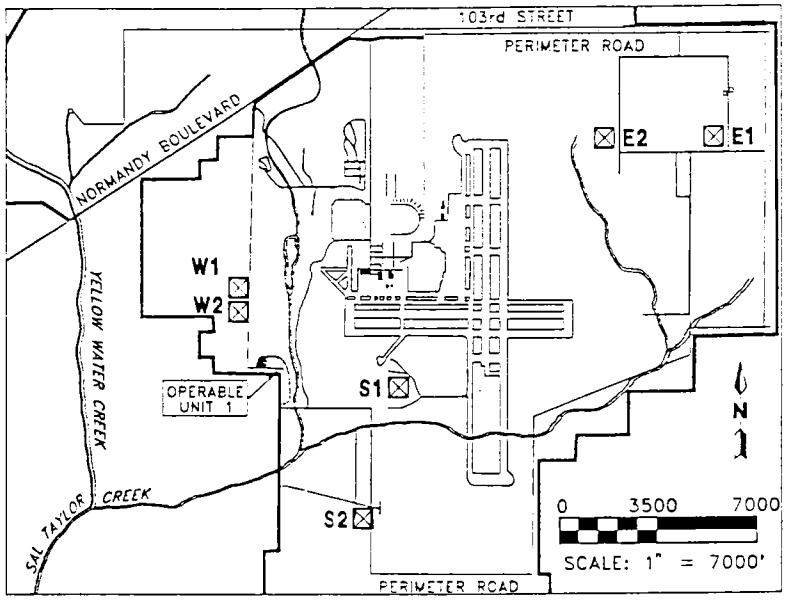
BACKGROUND MEDIA LOCATIONS - FOR SOIL

BASELINE RISK ASSESSMENT

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-12 940325WEM

Cec_OU1.BRA
FGB.03.94



△CEFBKSS9

LEGEND

△CEFBKSS14 Surface Soil Sample

0 50 100

SCALE: 1" = 100'

FIGURE B-2

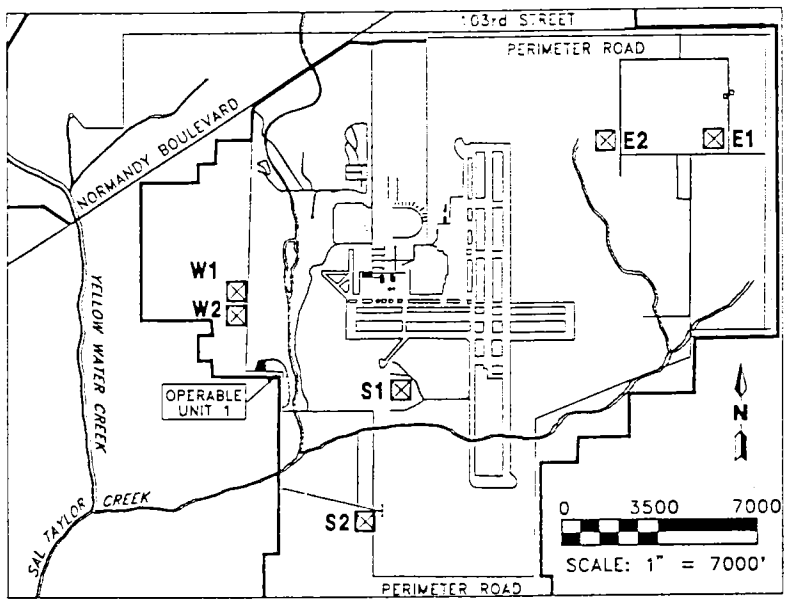
BACKGROUND MEDIA LOCATIONS AT EAST 1 (E1)

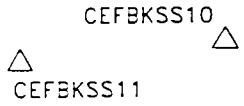
BASELINE RISK ASSESSMENT

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-12 940325WEM

Cec_OU1.BRA
FGB.03.94





LEGEND

CEFBKSS14 Surface Soil Sample

0 50 100
SCALE: 1" = 100'

FIGURE B-3

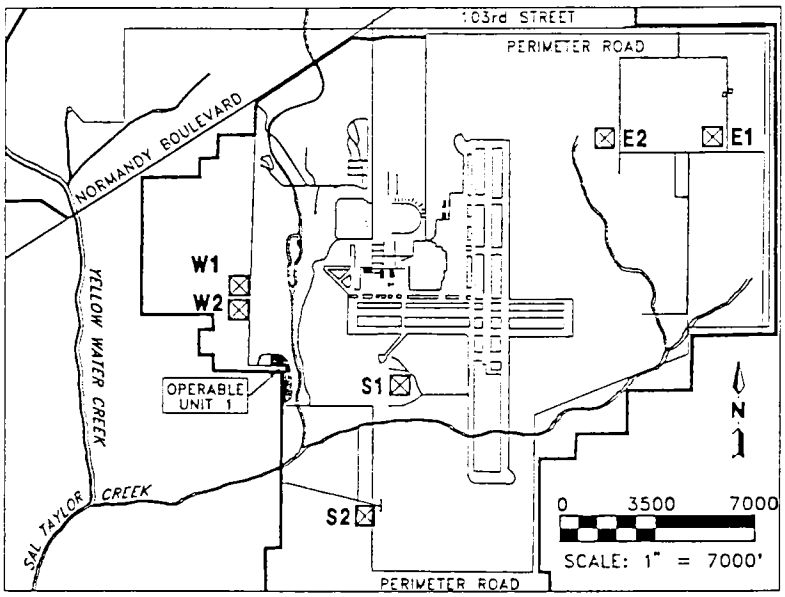
BACKGROUND MEDIA LOCATIONS AT EAST 2 (E2)

BASELINE RISK ASSESSMENT

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-12 940325WEM

Cec_OU1.BRA
FGB.03.94



DIRT ROAD

CEFBKSS4

CEFBKSS1

CEFBKSS2

CEFBK1S
BBMSIS0 (0-2')
BBMSIS6 (6-8')

CEFBKSS3

LEGEND

CEFBKSS14	Surface Soil Sample
CEFBK5S	Monitoring Well Location With Subsurface Soil Samples
BBMS1S0	Surface Soil Sample at 0-2 Feet Below Surface

0 50 100
SCALE: 1" = 100'

FIGURE B-4

BACKGROUND MEDIA LOCATIONS AT SOUTH 1 (S1)

BASELINE RISK ASSESSMENT

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-12 940325WEM

Cec_OU1.BRA
FGB.03.94

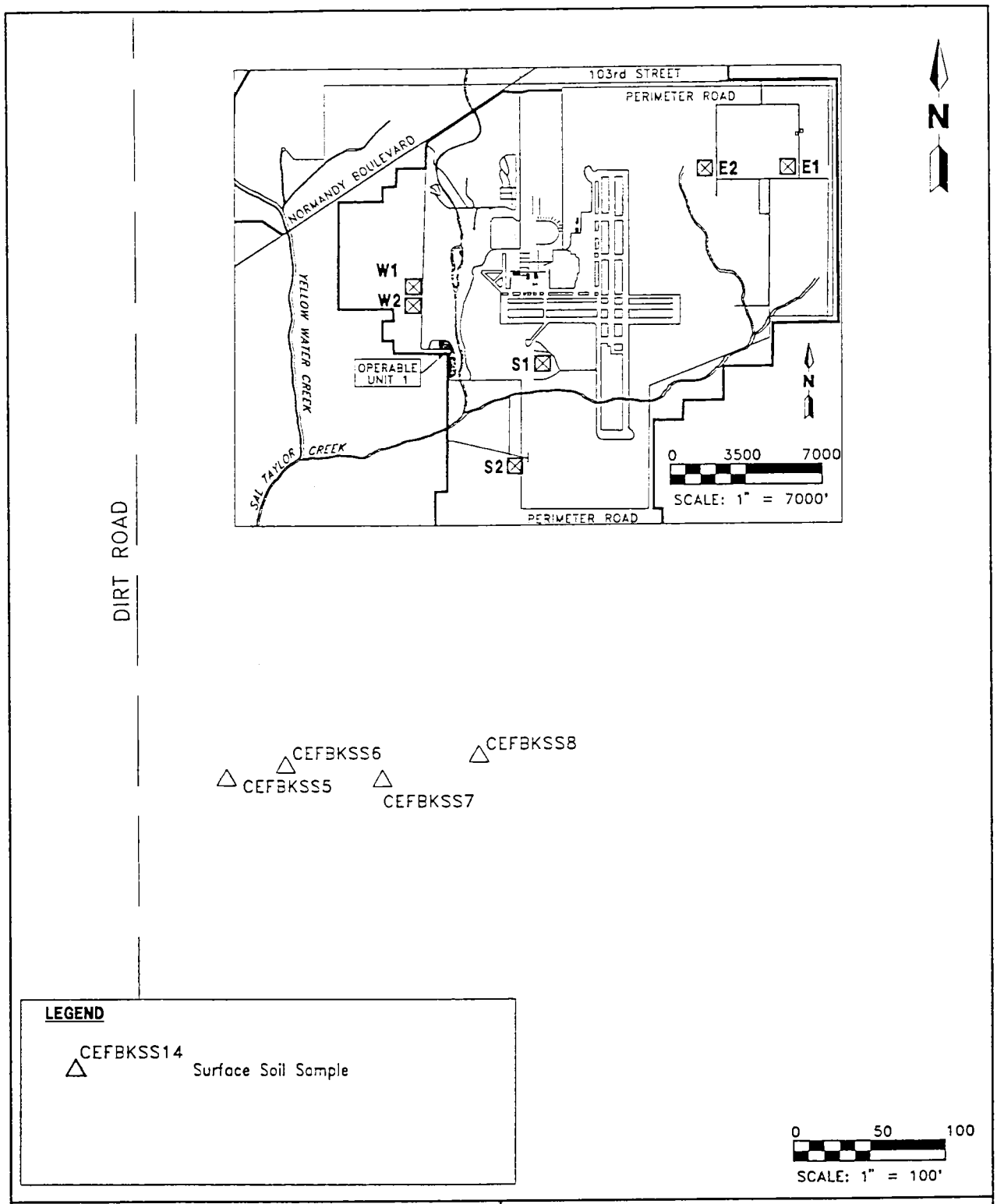


FIGURE B-5

BACKGROUND MEDIA LOCATIONS AT SOUTH 2 (S2)

BASELINE RISK ASSESSMENT

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-12 940325WEM

Cec_OU1.BRA
FGB.03.94

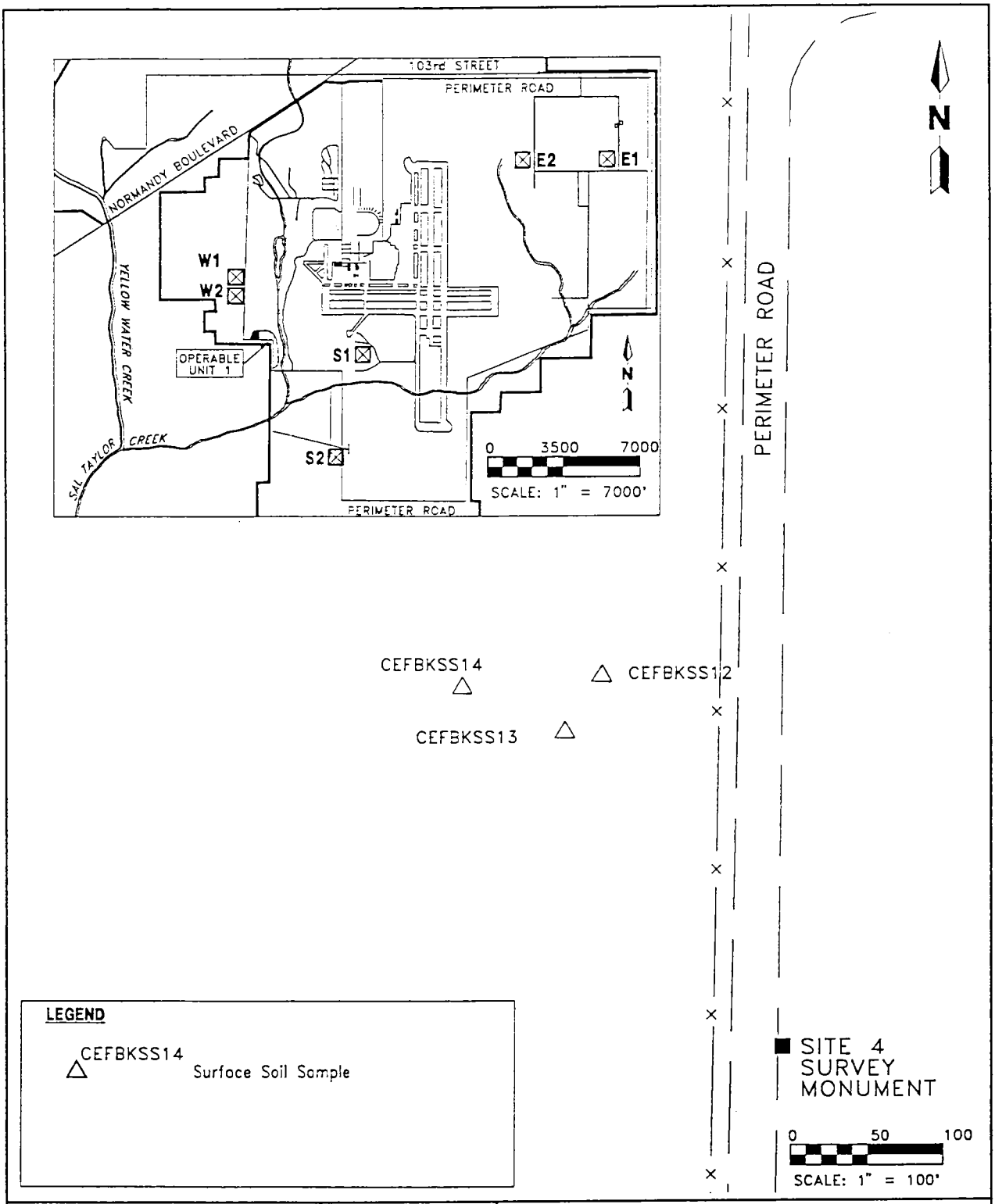


FIGURE B-6

BACKGROUND MEDIA LOCATIONS AT WEST 1 (W1)

BASELINE RISK ASSESSMENT

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-12 940325WEM

Cec_OU1.BRA
FGB.03.94

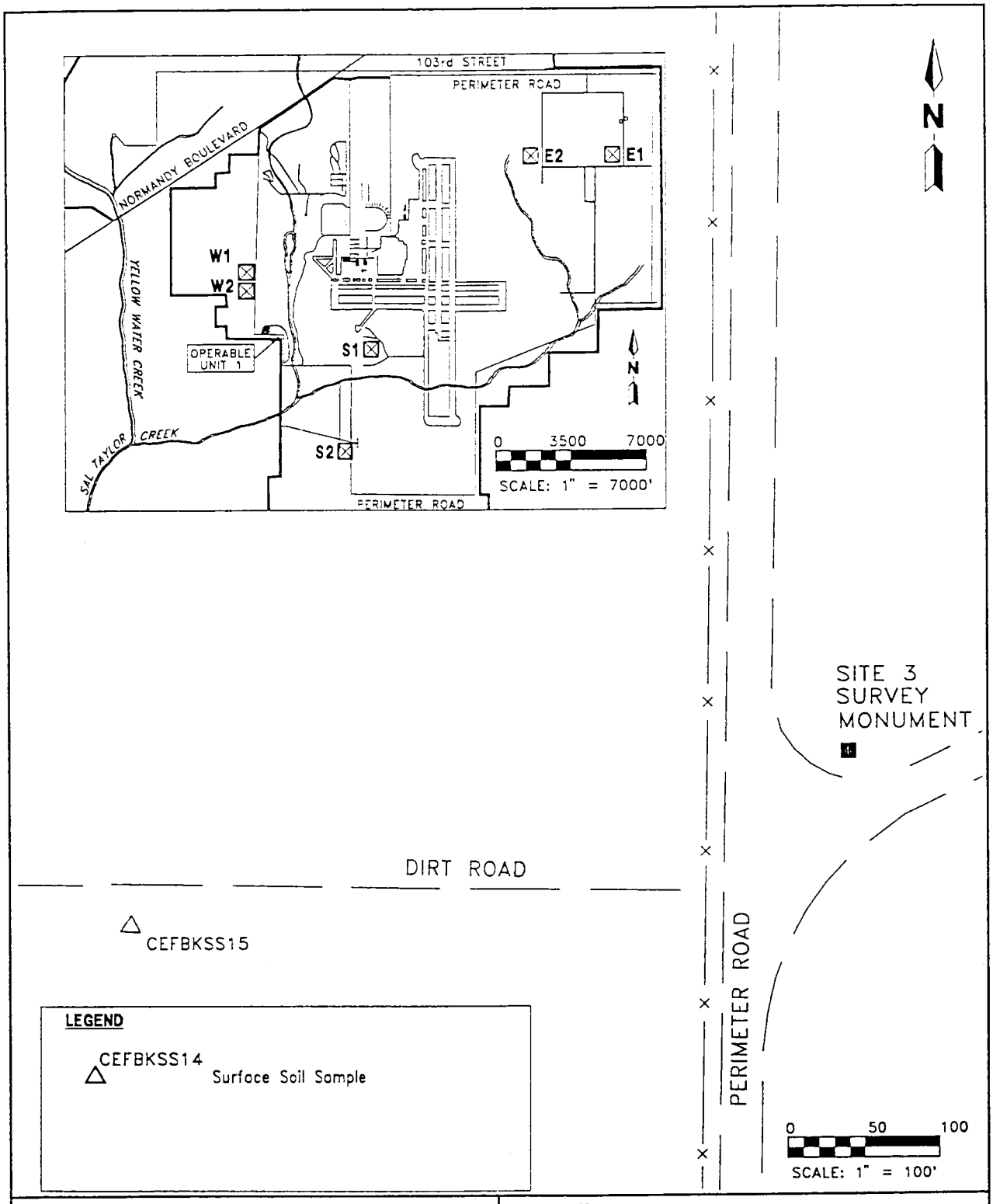


FIGURE B-7

BACKGROUND MEDIA LOCATIONS AT WEST 2 (W2)

BASELINE RISK ASSESSMENT

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

8500-12 940325WEM

Cec_OU1.BRA
FGB.03.94

Table B-2
Background Soil and Groundwater Analytical Sampling Program

Appendix B

NAS Cecil Field, Jacksonville, Florida

Sample Identification	TCL	TAL	TPH
Surface Soil			
CEFBSS01	X	X	X
CEFBSS02	X	X	X
CEFBSS03	X	X	X
CEFBSS04	X	X	X
CEFBSS05	X	X	X
CEFBSS06	X	X	X
CEFBSS07	X	X	X
CEFBSS08	X	X	X
CEFBSS09	X	X	X
CEFBSS10	X	X	X
CEFBSS11	X	X	X
CEFBSS12	X	X	X
CEFBSS13	X	X	X
CEFBSS14	X	X	X
CEFBSS15	X	X	X

Notes: TCL = U. S. Environmental Protection Agency (USEPA) Contract Laboratory Program target compound list.
TAL = USEPA Contract Laboratory Program Target Analyte List.
TPH = Total Petroleum Hydrocarbons (USEPA Method 418.1).
CEF/CF = NAS Cecil Field.
SS = Surface Soil.
0 = top of 2-foot interval sample.

Table B-3
Background Monitoring Well Construction Details, Sites 1 and 2

Appendix B

NAS Cecil Field, Jacksonville, Florida

Well Number	Date Installed	Top of Casing Elevation (feet, msl)	Length of Casing Above Land Surface[1] (feet)	Land Surface Elevation[2] (feet, msl)	Length of Screen (feet)	Total Depth of Well[3] (feet)	Screen Slot Size (inches)	Construction/Remarks	Drilling Method
Background									
CEF-BK-1S	08/05/93	66.77	2.47	64.30	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-2S	08/05/93	84.09	2.36	81.73	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-3I	08/09/93	84.06	2.33	81.73	10	48.0	0.010	2" PVC Silica Sand Pack 20/30	HSA/ODEX
CEF-BK-4S	08/08/93	78.17	2.47	75.70	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-5S	08/08/93	76.96	2.26	74.70	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-6I	08/10/93	77.15	2.22	74.93	10	48.5	0.010	2" PVC Silica Sand Pack 20/30	HSA/ODEX
CEF-BK-7S	08/09/93	80.28	2.40	77.88	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-8S	08/09/93	80.19	2.39	77.80	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-9I	08/16/93	80.09	3.37	76.72	10	63.0	0.010	2" PVC Silica Sand Pack 20/30	HSA/ODEX

[1]Measured from land surface elevation.
[2]Elevation of northeast corner of concrete pad.
[3]Measured from land surface elevation; includes any sump.

Notes: msl = mean sea level datum (NGVD, 1929).
HSA = hollow-stem auger.
ODEX = reverse circulation.

Table B-4
Background Surface Soil Analytical Summary

Appendix B

NAS Cecil Field, Jacksonville, Florida

Locator:	CEFBSS01	CEFBSS02	CEFBSS02D	CEFBSS03	CEFBSS04	CEFBSS05	CEFBSS06	CEFBSS07	CEFBSS08	CEFBSS09
Collect Date:	19-Jul-93	19-Jul-93	19-Jul-93	19-Jul-93	19-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93
Semivolatiles (µg/kg)										
Phenol	52 J	--	--	--	--	--	190 J	--	--	22 J
Diethylphthalate	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	34 J	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl) phthalate	48 J	51 J	42 J	--	--	--	--	48 J	52 J	--
Pesticides/PCBs (µg/kg)										
4,4-DDE	--	--	--	--	--	--	--	--	--	--
Endrin	--	--	.32 J	--	--	--	--	--	--	.97 J
Endosulfan II	--	--	--	--	--	--	--	--	--	--
Endrin aldehyde	--	--	--	0.45	--	--	--	--	--	--
Inorganics (mg/kg)										
Aluminum	4,720	18,500	23,600	24,000	8,400	680	344	284	2,130	442
Arsenic	--	1.4 J	--	2.2 J	--	--	--	--	--	--
Barium	5.4 J	13.4 J	19.3 J	13.4 J	6.8 J	2.4 J	--	--	2.9 J	--
Calcium	--	--	--	--	--	--	--	--	--	--
Chromium	5.9	18.4	23.6	24.9	10.6	--	--	--	--	--
Iron	716	6,090	7,440	7,140	1,500	252	194	136	454	119
Lead	4.8	10.3	10.6	8.3	7.6	2.4	2.7	--	3.6	--
Magnesium	123 J	326 J	425 J	319 J	129 J	24.4 J	--	--	55.7 J	--
Manganese	8.8	9	10.1	10.9	4.8	4.1	4.1	3.6	3.7	--
Nickel	2 J	5.2 J	6.1 J	5.4 J	1.5 J	--	--	--	--	--
Potassium	69.7 J	199 J	255 J	236 J	87.5 J	--	--	--	--	--
Vanadium	4.9 J	20.2	23.8	30.7	10.9	1.9 J	1.6 J	1.3 J	3 J	1.3 J
TPH (mg/kg)	--	--	--	--	14	--	--	13	23	--

See notes at end of table.

Table B-4 (Continued)
Background Surface Soil Analytical Summary

Appendix B

NAS Cecil Field, Jacksonville, Florida

Locator:	CEFBSS09D	CEFBSS10	CEFBSS11	CEFBSS12	CEFBSS13	CEFBSS14	CEFBSS15
Collect Date:	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93
Semivolatiles (µg/kg)							
Phenol	21 J	--	--	--	23 J	--	--
Diethylphthalate	--	--	19 J	--	--	--	--
Di-n-butylphthalate	--	--	--	--	--	--	--
bis(2-Ethylhexyl) phthalate	--	--	--	17 J	--	--	--
Pesticides/PCBs (µg/kg)							
4,4-DDE	--	0.51	.21 J	--	--	.26 J	--
Endrin	--	--	--	--	--	--	--
Endosulfan II	--	--	--	--	--	--	.33 J
Endrin aldehyde	--	--	--	--	--	--	--
Inorganics (mg/kg)							
Aluminum	557	183	195	2,350	2,770	2,170	1,430
Arsenic	--	--	--	--	--	--	.22 UJB
Barium	2.4 J	2.1 J	2.6 J	3.7 J	4.1 J	4.8 J	6.8 JB
Calcium	--	269 J	211 J	--	220 J	--	217 J
Chromium	--	--	--	--	--	2.3	--
Iron	154	102	69.6	480	734	636	367
Lead	4	2.3	2.5	3.5	5.1	3.7	3.5
Magnesium	--	50.4 J	36.1 J	69.8 J	69.1 J	75.9 J	50 J
Manganese	--	5.2	2.5 J	5.5	5	5.9	3.8
Nickel	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--
Vanadium	1.4 J	1.5 J	1.3 J	3.3 J	3.9 J	3.3 J	2.6 J
TPH (mg/kg)	--	35	18	11	25	58	12

Notes: µg/kg = micrograms per kilogram.
4,4-DDE = 4,4-dichlorodiphenyldichloroethene.
PCBs = polychlorinated biphenyls.
mg/kg = milligrams per kilogram.
TPH = total petroleum hydrocarbons.

6 to 8 feet). This analysis indicated that the S1 location was not significantly different from the subsurface soils at the site, with the comparison to the 4 to 6 and 6 to 8 feet bls intervals (subsurface soils collected near each S1 surface soil locations, Figure B-4) being the best match to the S1 surface soil population. Therefore, the S1 location is considered to represent surface soil that has been disturbed, as the Arent designation by the Soil Survey implies, and that it could be derived from within the facility by reworking existing soils from deeper depths (0 to 8 feet bls).

The landfills at Sites 1 and 2 were trench and fill landfills. This means that the a trench was excavated and the soil was placed on the side of the trench. Material was then placed in the trench until is was full (or mostly full) and the trench was then covered with the soils removed during the excavation of the trench. This method of landfilling would result in soil at the land surface that consisted of reworked surface and subsurface soil. For this reason, the S1 (or Arents) background surface soil sampling location was selected as the background location for surface soil at Sites 1 and 2. Table B-5 presents descriptive statistics for inorganics for surface soil from the S1 location.

Table B-5
Descriptive Statistics Background Surface Soils[1]

Appendix B

NAS Cecil Field, Jacksonville, Florida

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median Tot.Sample	Num.Det/
Aluminum	N/A	N/A	183	24,000	5,456.18	2,130	17/17
Antimony	3.2	3.7	N/A	N/A	N/A	U 3.3	0/17
Arsenic	0.21	0.86	1.4	2.2	1.8	UJ 0.25	2/17
Barium	1.2	2	2.1	19.3	6.44	J 3.7	14/17
Beryllium	0.21	0.25	N/A	N/A	N/A	U 0.22	0/17
Cadmium	0.84	0.99	N/A	N/A	N/A	U 0.88	0/17
Calcium	67.7	198	211	269	229.25	U 119	4/17
Chromium	1.7	1.8	2.3	24.9	14.28	U 1.8	6/17
Cobalt	1.3	1.5	N/A	N/A	N/A	U 1.3	0/17
Copper	0.43	2.3	N/A	N/A	N/A	U 0.7	0/17
Cyanide	0.48	0.6	N/A	N/A	N/A	U 0.53	0/17
Iron	N/A	N/A	69.6	7,440	1,563.74	454	17/17
Lead	2	2.1	2.3	10.6	4.99	3.6	15/17
Magnesium	12.6	18.8	24.4	425	134.88	J 55.7	13/17
Manganese	0.69	1.2	2.5	10.9	5.8	4.8	15/17
Mercury	0.1	0.13	N/A	N/A	N/A	U 0.11	0/17
Nickel	1.5	1.6	1.5	6.1	4.04	U 1.5	5/17
Potassium	13.8	39.9	69.7	255	169.44	U 33.9	5/17
Selenium	0.21	0.25	N/A	N/A	N/A	U 0.22	0/17
Silver	0.84	0.99	N/A	N/A	N/A	U 0.88	0/17
Sodium	149	241	N/A	N/A	N/A	U 182	0/17
Thallium	0.41	0.5	N/A	N/A	N/A	U 0.44	0/17
Vanadium	N/A	N/A	1.3	30.7	6.88	J 3	17/17
Zinc	2.4	20.2	N/A	N/A	N/A	U 4.1	0/17

[1]Background surface samples taken at sample locations CEFBSS01, CEFBSS02, CEFBSS03, CEFBSS04, CEFBSS05, CEFBSS06, CEFBSS07, CEFBSS08, CEFBSS09, CEFBSS10, CEFBSS11, CEFBSS12, CEFBSS13, CEFBSS14, CEFBSS15.

Notes: Chem.name = chemical name.
Min.dl = minimum reported detection level.
Max.dl = maximum reported detection level.
Min.lv = minimum level reported.
Max.lv is maximum level reported,
ADL.Avg = above detection level average value.
Median is median of all values above and below detection level.
Num.Det/Tot.Sample = number of detects / total number sampled.

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APPENDIX C

PRECISION, ACCURACY, REPRESENTATIVENESS, COMPARABILITY, AND COMPLETENESS SUMMARY REPORT

PRECISION, ACCURACY, REPRESENTATIVENESS, COMPARABILITY, COMPLETENESS SUMMARY REPORT
OPERABLE UNIT 8
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

DRAFT VERSION

JANUARY 1995

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Glossary

PARCC	Precision, Accuracy, Representativeness, Comparability, Completeness
NAS	Naval Air Station
OU	Operable Unit
RI	Remedial Investigation
QA/QC	Quality Assurance / Quality Control
USEPA	United States Environmental Protection Agency
DQO	Data Quality Objectives
SDG	Sample Delivery Group
LCS/LCSD	Laboratory Control Sample / Laboratory Control Sample Duplicate
MS/MSD	Matrix Spike / Matrix Spike Duplicate
IDL	Instrument Detection Limit
CRQL	Contract Required Quantitation Limit
CRDL	Contract Required Detection Limit
RPD	Relative Percent Difference
ASTM	American Society for Testing and Materials
VOC	Volatile Organic Compound
SVOC	Semivolatile Organic Compound
PCB	Polychlorinated Biphenyl
ug/kg	Micrograms per Kilogram
mg/kg	Milligrams per Kilogram
%R	Percent Recovery
RRF	Relative Response Factor
%RSD	Percent Relative Standard Deviation
%D	Percent Difference
ug/l	Micrograms per Liter

PRECISION, ACCURACY, REPRESENTATIVENESS, COMPARABILITY,
COMPLETENESS SUMMARY REPORT
OPERABLE UNIT EIGHT
NAVAL AIR STATION, CECIL FIELD
JACKSONVILLE, FLORIDA

1.0 INTRODUCTION

A Remedial Investigation (RI) was conducted at Operable Unit (OU) 8 on the Naval Air Station, Cecil Field. This part of the RI included the collection and analyses of 147 environmental and quality control (QC) samples. Environmental samples were analyzed for volatile organic compounds (VOC), semivolatile organic compounds (SVOC), pesticide and polychlorinated biphenyls (P/PCB), metals and cyanide and wet chemistry parameters. These samples were analyzed in accordance with EPA's contract laboratory program 1990 statement of work. The analytical data were evaluated for quality assurance and quality control (QA/QC) based on the following U.S. Environmental Protection Agency (USEPA) guidance documents: *National Functional Guidelines for Organic Data Review,* June 1991 and the *Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses,* July 1988 (functional guidelines).

Quanterra Environmental Services (Wadsworth/Alert Laboratories) of Canton, Ohio performed 25,540 water, soil, sediment, and quality control chemical analyses. The samples were grouped into sample delivery groups (SDGs) of up to 20 field samples received by the laboratory over a period of up to 14 calendar days. The environmental samples are associated with QA/QC samples designed to document the data quality of the entire SDG or a sub-group of samples within an SDG. Table 1 is a cross reference table listing each OU-8 sample, its associated SDG, and the laboratory that performed the analyses.

This report summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness and comparability (PARCC) relative to the project data quality objectives (DQOs). This report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty, and bias that may affect the overall usability.

The PARCC summary report evaluates and summarizes the results of QA/QC data validation for the entire sampling program. Each analytical fraction has a separate section for each of the PARCC criteria. These sections interpret specific QC deviations and their effects on both individual data points and the analyses as a whole. Variances from standard analytical methods are given in Section 6. Section 7 presents a summary of the PARCC criteria by comparing quantitative parameters with acceptability criteria defined in the project DQO's. Qualitative PARCC criteria are also summarized in this section. Section 8 displays data QC

tables summarizing the samples analyzed, all data outside functional guidelines QC criteria, rejected data, pesticide instumental performance information, and concentrations of metals analytes above four times matrix spiking levels.

Precision and Accuracy of Environmental Data

Environmental data quality depends on sample collection procedures, analytical methods and instrumentation, documentation and sample matrix properties. Both sampling procedures and laboratory analysis contain potential sources of uncertainty, error, or bias that affect the overall quality of a measurement. Sample errors may result from incomplete equipment decontamination, inappropriate sampling techniques, homogenization or non-homogenization of samples, improper filtering, and improper preservation. The accuracy of analytical results is dependent on selecting appropriate analytical methods, maintaining equipment properly, and selecting effective laboratory software. The sample matrix also is an important factor in the ability to obtain precise and accurate results.

Environmental and laboratory QA/QC samples assess the effects of sampling procedures and evaluate laboratory derived contaminations, laboratory performance, and matrix effects. QA/QC samples include: trip blanks, equipment rinsate blanks, method blanks, laboratory control samples (LCSs), surrogate spikes, matrix spike/matrix spike duplicates (MS/MSDs), laboratory duplicates, and field duplicates.

Before conducting the PARCC evaluation, the analytical data were validated according to the functional guidelines for organic and inorganic data review (USEPA, 1991; 1988, respectively). Samples not meeting functional guideline acceptance criteria were qualified with a flag, an abbreviation indicating a problem with the data. The following are flags used in data validation.

J Estimated The associated numerical value is an estimated quantity. The analyte was detected but the reported value may not be accurate or precise. The "J" qualification indicates the data fell outside QC limits, but the exceedance was not sufficient to cause rejection of the data. The "J" qualifier is also applied to sample results that are above the method instrument limit (IDL), but are less than the contract required quantitation limit (CRQL) for organic compounds or contract required detection limit (CRDL) for inorganic compounds. It also designates imprecision in low-level inorganic results.

R Rejected The data is unusable (the compound or analyte may or may not be present). Use of the "R" qualifier indicates a significant variance from functional guideline acceptance criteria. Either resampling or reanalysis is necessary to determine the presence or absence of the rejected analyte.

U Undetected Analyses were performed for the compound or analyte, but it was not detected. The associated numerical value is the CRQL for organic compound analyses and the CRDL for inorganic analyses. The "U" designation is also applied to suspected

blank contaminations. The "U" flag is used to qualify any result detected in an environmental sample at a concentration less than 10 times the value of the concentration in any associated blank for common laboratory contaminants and less than 5 times the concentration in any associated blank for all other analytes.

UJ Estimated/Undetected Analyses were performed for the compound or analyte, but it was not detected and the sample quantitation or detection limit is an estimated quantity due to poor accuracy or precision. This qualification is also used to flag possible false negative results in the case where low bias in the analytical system is indicated by low surrogate, internal standard, or other spike recovery.

Once the data are reviewed and qualified according to the functional guidelines, the data set is then evaluated using PARCC criteria. PARCC criteria provide an evaluation of overall data useability. The following is a discussion of PARCC criteria as related to the project DQOs.

Precision is a measure of the agreement or reproducibility of analytical results under a given set of conditions. It is a quantity that cannot be measured directly, but is calculated from percent recovery data. Precision is expressed as the relative percent difference (RPD):

$$RPD = ((D1-D2)/(1/2\ (D1+D2))) \times 100$$

Where D1 and D2 are the reported concentrations for sample and duplicate analyses. Precision is primarily assessed by calculating an RPD from the percent recoveries of the spiked compounds for each sample in the MS/MSD pair. In the absence of an MS/MSD pair, two LCSs are spiked and analyzed in each analytical SDG as an alternative means of assessing precision. An additional measure of sampling precision was obtained by collecting and analyzing field duplicate samples, which were compared using RPD calculations and other precision evaluation criteria.

MS and MSD samples, consisting of split organic samples usually collected in separate containers during the field sampling event, are spiked by the laboratory with target analytes prior to preparation and analysis. These samples measure the overall efficiency of the analytical method in recovering target analytes from an environmental matrix. An LCS is similar to an MS/MSD sample in that the LCS is spiked with the same target analytes prior to preparation and analysis. However, the LCS is prepared using a controlled interference-free matrix instead of a field sample aliquot. Laboratory reagent water is used to prepare aqueous LCS. Non-aqueous LCSs are prepared using media approved by the American Society for Testing and Materials (ASTM) for their homogeneity. The LCS measures laboratory efficiency in recovering target analytes from either a solid or aqueous matrix in the absence of matrix interferences.

In inorganics analysis, one matrix spike sample is analyzed accompanied by an unspiked laboratory duplicate. The data reviewer compares the reported results of the original analysis

and the laboratory duplicate, then calculates RPDs, which are used to assess laboratory precision.

Laboratory and field sampling precision are further evaluated by calculating RPDs for field sample duplicate pairs. The sampler collects two field samples at the same location and under identically controlled conditions. The laboratory then analyzes the samples under identical conditions. With the exception of volatile organic compound (VOC) samples, field duplicate sample pairs are homogenized in the field before being placed in separate sample containers. VOC field duplicate sample pairs are discrete samples collected at the same time.

Possible causes of poor precision include sample heterogeneity, improper sample collection or handling, inconsistent sample preparation, and improper instrument use. Field duplicate RPDs are evaluated only when a compound is detected above the CRQL or CRDL, resulting in fewer RPD data pairs available for evaluation as compared to spike samples such as LCS or MS/MSD. The information obtained from field duplicate samples is of substantial value because the samples may not be affected by problems in the analytical system associated with the spiking of a sample matrix (particularly solid matrices).

An RPD outside the numerical QC limit in either MS/MSD samples or LCS duplicates indicates imprecision. Imprecision is the variance in the consistency with which the laboratory arrives at a particular reported result. Thus, the actual analyte concentration may be higher or lower than the reported result.

Accuracy is a measure of the agreement of an experimental determination and the true value of the parameter being measured. It is used to identify bias in a given measurement system. Recoveries outside acceptable QC limits may be caused by factors such as instrumentation, analyst error, or matrix interference. Accuracy is assessed through the analysis of MS, MSD, LCS, and samples containing surrogate spikes. Surrogate spikes are either isotopically labeled compounds or compounds that are not typically detected in the samples. Surrogate spikes are added to every blank, environmental sample, MS/MSD, and standard, for volatile organics (VOC), semivolatile organics (SVOC), pesticide, and polychlorinated biphenyl (PCB) analyses. Accuracy of inorganic analyses is determined using the percent recoveries of MS and LCS analyses alone.

Percent recovery (%R) is calculated using the following equation:

$$\%R = ((A-B)/C) \times 100$$

where A = measured concentration in the spiked sample,
B = measured concentration of the spike compound in the unspiked sample, and
C = concentration of the spike.

The percent recovery of each analyte spiked in MS/MSD samples, LCS samples, and surrogate compounds added to environmental samples is compared with the acceptance

criteria specified by the functional guidelines (USEPA, 1991; 1988, respectively). Spike recoveries outside the acceptable QC accuracy limits provide an indication of bias, where the reported data may overestimate or underestimate the actual concentration of compounds detected or quantitation limits reported for environmental samples.

Representativeness is a qualitative parameter that expresses the degree to which the sample data are characteristic of a population. It is evaluated by reviewing the QC results of blank samples. Positive detections of compounds in the blank samples identify compounds that may have been introduced into the samples during sample collection, transport, preparation, or analysis.

The QA/QC blanks collected and analyzed for organic analysis are: method blanks, equipment rinsate blanks, and trip blanks. A method blank is a laboratory grade water or solid matrix that contains the method reagents and has undergone the same preparation and analysis as the environmental samples. The method blank provides a measure of the combined contamina-tion derived from the laboratory source water, glassware, instruments, reagents, and sample preparation steps. Method blanks are prepared for each sample of a similar matrix extracted by a similar method at a similar concentration level.

Equipment rinsate blanks consist of analyte-free water poured over or through the sample collection equipment. The water is collected in a sample container for laboratory analysis. These blanks are collected after the sampling equipment is decontaminated, and measure efficiency of the decontamination procedure. Equipment rinsate blanks were collected and analyzed for all target analytes.

Trip blanks are blanks used to identify possible volatile organics contamination introduced into the sample during transport. A trip blank is a sample bottle filled in the laboratory with reagent-grade water and preserved to a pH less than 2 with hydrochloric acid. It is transported to the site, stored with the sample containers, and returned unopened to the laboratory for analysis. Trip blanks were included in each cooler containing VOC samples.

In inorganics analysis, equipment or rinsate blanks, preparation blanks, and initial and continuing calibration blanks measure analyte artifacts and baseline shift. A preparation blank is a laboratory grade water or solid matrix that contains all the reagents and is carried through the sample preparation process. A preparation blank is prepared and analyzed with each inorganic SDG preparation assess contamination from laboratory reagents, glassware, source water, and preparation procedures.

Initial and continuing calibration blanks consist of acidified laboratory grade water that is injected at the beginning and at a regular frequency during each 12 - hour sample analysis run. These blanks estimate residual contaminants from the previous sample or standards analysis and measure baseline shifts that commonly occur in emission and absorption spectroscopies.

Contaminants found in both the environmental sample and a blank sample are assumed to be laboratory artifacts if the concentaration in the environmental samle is less than 5 times the blank value for regular target analytes or 10 times the blank value common laboratory contaminants.

Comparability is a qualitative expression of the confidence with which one data set may be compared to another. It provides an assessment of the equivalence of the analytical results to data obtained from other analyses. It is important that data sets be comparable if they are used in conjunction with other data sets. The factors affecting comparability include the following: sample collection and handling techniques, matrix type, and analytical method. If these aspects of sampling and analysis are carried out according to standard analytical procedures, the data are considered comparable. Comparability is also dependent upon other PARCC criteria, because only when precision, accuracy, and representativeness are known can data sets be compared with confidence.

Completeness is defined as the percentage of acceptable measurements compared to the total number of measurements made. Completeness is evaluated to determine if an acceptable amount of useable data were obtained so that a valid scientific site assessment can be completed. Completeness equals the total number of analytes for each fraction minus the total number of rejected analytes divided by the total number of analytes multiplied by 100. As specified in the project DQOs, the goal for completeness for target analytes in each analytical fraction is 96 percent.

Percent completeness is calculated using the following equation:

$$\%C = ((T - R)/T) \times 100$$

where
% C = percent completeness,
T = total number of analytes, and
R = total number of rejected analytes.

The following sections present a review of QC data for each analytical method.

2.0 VOLATILE ORGANIC COMPOUNDS

A total of 153 samples were analyzed for VOCs. The samples were divided into 9 separate SDGs. This chapter discusses the QA/QC supporting documentation as defined by the PARCC criteria and evaluated based on the DQOs.

2.1 Precision

MS/MSD and field duplicate samples were used to assess precision. MS/MSD samples were analyzed in all SDGs. Only soil MS/MSDs were analyzed in SDGs WA034, WA035 and WA036 as the SDG consisted of soil samples only (excluding field blanks). Only water MS/MSDs were analyzed in SDGs WA020, WA021, WA22, WA023, WA024 and WA037 as the SDGs consisted of water samples only.

With the exception of SDG WA024, all SDGs contained field duplicate sample pairs, which provided an additional measure of precision. SDGs with duplicate sample pairs were evaluated for precision with the understanding that these results may not be representative of concentrations found in the other samples within the SDG.

2.1.1 MS/MSD Samples

The functional guidelines establish RPD QC limits for MS/MSD samples as follows:

Compound	Soil RPD	Water RPD
1,1-Dichloroethene	22	20
Trichloroethene	24	13
Benzene	21	13
Toluene	21	15
Chlorobenzene	21	10

There were three VOC RPD exceedances noted in the 9 SDGs. MS/MSD results are presented in Table 2. A total of 120 MS/MSD analyses were conducted. The following RPD QC exceedances were noted:

SDG No.	Compound	Matrix	RPD	RPD Limit
WA020	benzene	Water	18	13
	toluene	Water	18	15
WA035	1,1-dichloroethene	Soil	34	22

These results represent acceptable precision attained for both water and soil matrices.

2.1.2 Field Duplicate Samples

Duplicate sample pairs were analyzed with SDGs WA034. WA035 and WA036 for the soil matrix only. SDGs WA020, WA021, WA022, WA023 and WA037 were analyzed for water field duplicates only. SDG WA024 contained no field duplicate samples. The duplicate sample results are presented in Table 3. Precision calculations were performed on analytes that exceeded CRQL in both the sample and duplicate. The following compounds were detected in the field duplicates outside QC limits:

SDG No.	Duplicate Nos.	Compound	RPD (ug/kg)
WA022	CF3MW3S / CF3MW3SD	trichloroethene	44
		xylenes (total)	56

The RPDs for the one field duplicate pair did not meet the 30 percent RPD limit for water samples for results above the CRQL. Positive results in SDG WA022, which consisted of all water samples, are considered moderately imprecise. These were the only exceedances in the 8 SDGs containing field duplicates. There were few positive results detected in the field duplicate pairs.

2.1.3 Conclusion

The MS/MSD analytical results, which were 95.0 percent compliant with functional guideline QC criteria, indicate an acceptable level of sample collection and analytical precision was attained. The information provided by the field duplicate samples is limited because few calculable RPDs were available. If a precision problem exists with negative results, it is confined to the concentration range at or below the IDL, and is generally below the concentration range of concern to the data user. It is essential for negative results to be carefully evaluated for low biases. Low biases can result in an analyte being present in the sample and not being detected (false negatives).

2.2 Accuracy

The percent recovery results of MS/MSDs and surrogate spikes are used to assess accuracy. MS/MSD recovery results are presented in Table 2. As previously stated, only soil MS/MSDs were analyzed in SDGs WA034, WA035 and WA036. Only water MS/MSDs were analyzed in SDGs WA020, WA021, WA022, WA023, WA024 and WA037. Assessment of accuracy was made by calculating the percent recoveries of the five spiking compounds: 1,1-dichloroethene, trichloroethene, benzene, toluene, and chlorobenzene.

2.2.1 MS/MSD Samples

All %R values for the MS/MSD samples met functional guidelines recovery criteria in the 9 SDGs. The results indicate that a high degree of accuracy was attained.

2.2.2 Surrogate Spikes

Three surrogate compounds were added by the laboratory to each environmental QA/QC sample submitted for VOC analysis. The VOC surrogate spike compounds were bromofluorobenzene, 1,2-dichloroethane-d4, and toluene-d8. Bromofluorobenzene is not a target compound and 1,2-dichloroethane-d4 and toluene-d8 are isotopically labeled target compounds. The use of these compounds as surrogates enables the laboratory to separate the surrogates from compounds of interest and to accurately calculate recoveries. Surrogate spike recoveries for VOC analyses were compared to the QC criteria in the USEPA functional guidelines, as follows:

Surrogate	Solid Matrix (percent)	Aqueous Matrix (percent)
Toluene-d8	84-138	88-110
Bromofluorobenzene	59-113	86-115
1,2-Dichloroethane-d4	70-121	76-114

Of the 516 surrogate percent recoveries evaluated, only one was outside the QC limits. These results do not suggest an analytical trend detrimental to accuracy.

2.2.3 Initial and Continuing Calibration

Initial and continuing calibration results provide another means of evaluating accuracy within a particular SDG. Relative response factor (RRF), percent relative standard deviation (%RSD), and percent difference (%D) are the three major parameters used to measure the effectiveness of instrument calibration. RRF is a measure of the relative spectral response of an analyte compared to its internal standard. %RSD is an expression of the linearity of instrument response. %D is a comparison of a continuing calibration instrumental response with its initial response. The most critical of the three calibration parameters, RRF, has the potential to affect data accuracy across an SDG when it is outside acceptable QC limits. %RSD and %D exceedances suggest more routine instrumental anomalies, which typically affect only samples with positive results for the compounds with exceeded %RSDs or %Ds and were run within the particular analytical window in which the exceedances occurred.

There were RRF exceedances for 2-hexanone in SDGs WA020, WA021 and WA037. Three 2-hexanone RRFs were below the 0.050 QC limit in these 3 SDGs. All negative results for these compounds in the affected calibration runs were rejected by the validator. Positive results were flagged as estimated. Negative results for this compound in the affected samples may be false negatives. Positive results are likely much higher than reported. These results do not represent a systematic analytical problem because only one low RRF for this compound was observed in each of the three SDGs.

There were %RSDs or %Ds outside functional guidelines criteria in all 9 SDGs. The %RSD and %D QC limit exceedances and the samples and target analytes affected by these

exceedances are given in Table 4. The %RSD and %D exceedances may create a bias in the data relative to the other calibration information generated, but it is not evident that an absolute quantifiable bias exists in the data. The data user should, for this reason, regard the qualified results as imprecise rather than inaccurate. The %RSDs and %Ds that exceeded the QC criteria do not suggest any systematic analytical problems with either accuracy or precision.

2.2.4 Conclusion

The QA/QC data suggest a high level of accuracy was attained in the analyses. The MS/MSD and surrogate recovery data suggest that matrix interferences had a minimal effect on accuracy. Interferences were not observed. The low RRFs for 2-hexanone indicate in a low bias for these compounds in the 3 SDGs with low RRF's.

2.3 Representativeness

Method blanks, equipment or rinsate blanks and trip blanks were collected and analyzed for VOCs to evaluate representativeness. The results of the QA/QC blank analyses are presented in Table 5. Acetone was detected in the various QA/QC blanks. The highest detected concentration for an individual target analyte in any of the three types of QA/QC blanks was used for data qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for organic analytes based on the following criteria. The validation qualifier codes used in the blank summary tables are described below.

> CRQL Validation Qualifier If a sample result for the blank contaminant was less than the CRQL and less than 5 times the blank value for regular target compounds or 10 times the blank value for common laboratory contaminants (the blank action level), the sample result was rejected and amended as non-detected at the CRQL for the target compound.
>
> U Validation Qualifier If a sample result for the blank contaminant was greater than the sample CRQL and less than the blank action level, the sample result for the blank contaminant was amended as a negative at the concentration reported in the sample results.
>
> No Action (NA) If a sample result for the blank contaminant was greater than the blank action level, the result was not amended.

The following presents a description of VOCs detected in method blanks, equipment rinsate blanks, and trip blanks. Corrective actions made for target analytes detected in the environmental samples are described by SDG in Table 5.

2.3.1 Method Blanks

Method blank samples were analyzed with each SDG that was analyzed for VOCs to identify target compounds that may have been introduced through the sample preparation and analytical instrumentation. Acetone was detected in the method blanks for SDGs WA22, WA023, WA034, WA035 and WA037 at a concentration range between 2 ug/L and 5 ug/L for waters and 5 ug/kg and 14 ug/kg for soils. 2-Butanone, 2-hexanone and 4-methyl-2-pentanone were detected at 3 ug/kg, 6 ug/kg and 3 ug/kg, respectively, in the soil method blanks for SDG WA035.

2.3.2 Equipment Rinsate Blanks

Equipment rinsate blank samples are used to evaluate target analytes that may have been introduced by the sampling equipment or laboratory handling of the samples. Acetone was detected in the equipment rinsate blank for SDGs WA021, WA022, WA023 and WA024 at a concentration range between 6 ug/L and 19 ug/L. Chloroform, chloromethane, bromodichloromethane and dibromochloromethane were detected at 7 ug/L, 10 ug/L, 3 ug/L and 1 ug/L, respectively, in the equipment rinsate blank for SDG WA020.

2.3.3 Trip Blanks

Trip blanks were placed in each cooler containing field VOC water or soil samples. Trip blanks are QA/QC samples used to identify possible sampling artifacts originating from storage, shipping, or site conditions. Acetone was detected in the trip blanks for all SDGs, except SDGs WA024 and WA035, at a concentration range between 4 ug/L and 22 ug/L. 1,1,1-Trichloroethane was detected at 2 ug/L in the trip blank associated with SDG WA022.

2.3.4 Conclusion

The target analytes detected in the QA/QC blanks routinely occur at comparable concentrations in laboratory analyses. The analytical results are considered to be representative. The application of the blank qualification rule does have implications on the completeness of the analytical data, however, which is discussed below.

2.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the contract required quantitation limits. The comparability of the data is regarded as acceptable. Some samples were qualified due to low-level blank contamination (as discussed in Section 2.3), which raised the effective detection limits for the suspected blank contaminants in those samples.

2.5 Completeness

The completeness level attained for project volatile organic field samples was 99.8 percent. This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. There were 8 data points rejected due to QC limit exceedances. These rejections are given in Table 6. Other data were qualified as "estimated" for various reasons. The remaining data were found to be acceptable.

Another type of data qualification affecting data completeness is the application of functional guidelines blank validation rules. When samples are qualified due to contamination in an associated blank, a "5 times" or "10 times" action limit is set such that sample results below the action limit are flagged as "undetected" for the particular compound in question. This flagging procedure effectively rejects the concentration range between zero and the initial reported result, which becomes the new detection limit. It is possible that the levels of blank contamination detected could eliminate data in a necessary concentration range in some instances. In these cases, more data are needed to verify the existence of the compound in question at the site below the revised detection limit.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

A total of 137 water and soil samples were analyzed for SVOCs. The samples were divided into 9 separate SDGs. This chapter discusses the QC supporting documentation as defined by the PARCC criteria and evaluated based on the DQOs.

3.1 Precision

MS/MSD and field duplicate samples were used to assess precision. MS/MSD samples were analyzed in all SDGs. Only soil MS/MSDs were analyzed in SDGs WA034, WA035 and WA036 as the SDGs consisted of soil samples only (excepting field blanks). Only water MS/MSDs were analyzed in SDGs WA020, WA021, WA022, WA023, WA024 and WA037 as the SDGs consisted of water samples only.

Assessment of precision was made by calculating the RPDs of 11 spiking compounds: phenol, 2-chlorophenol, 1,4-dichlorobenzene, n-nitroso-di-n-propylamine, 1,2,4-trichlorobenzene, 4-chloro-3-methylphenol, acenaphthene, 4-nitrophenol, 2,4-dinitrotoluene, pentachlorophenol, and pyrene.

SDGs that contained duplicate sample pairs were evaluated for precision with the understanding that results of the duplicate sample pairs may not be representative of concentrations found in the other samples within the SDG.

3.1.1 MS/MSD Samples

The functional guidelines establish RPD QC criteria for MS/MSD samples as follows:

Compound	Soil RPD	Water RPD
Phenol	35	42
2-Chlorophenol	50	40
1,4-Dichlorobenzene	27	28
n-Nitroso-di-n-propylamine	38	38
1,2,4-Trichlorobenzene	23	28
4-Chloro-3-methylphenol	33	42
Acenaphthene	19	31
4-Nitrophenol	50	50
2,4-Dinitrotoluene	47	38
Pentachlorophenol	47	50
Pyrene	36	31

There were five SVOC RPD exceedances noted in the 9 SDGs. MS/MSD results are presented in Table 2. A total of 264 MS/MSD analyses were conducted. The following RPD QC

exceedances were noted:

SDG No.	Compound	Matrix	RPD	RPD Limit
WA020	pyrene	Water	39	36
WA024	acenaphthene	Water	34	31
	1,4-dichlorobenzene	Water	200	28
WA036	1,2,4-trichlorobenzene	Soil	29	23
	pentachlorophenol	Soil	57	47

These results represent acceptable precision (96.2 percent) attained for both water and soil matrices, and indicates that no matrix-related precision problems exist in the analysis of the compounds in the 9 SDGs.

3.1.2 Field Duplicate Samples

Duplicate sample pairs were analyzed with SDGs WA034, WA035 and WA036 for the soil matrix and SDGs WA020, WA021, WA022, WA023 and WA037 for the water samples. SDG WA024 contained no field duplicate samples. There were no RPD results outside QC limits for the 8 SDGs. The results suggest that acceptable precision was attained. Few positive results were detected in the field duplicate pairs. The consistency observed in the non-detect sample results suggests that any lack of precision is less than the IDL in the absence of a low bias.

3.1.3 Conclusion

Both the MS/MSD and the field duplicate results indicate good precision was attained in all SDGs. The low number of detections in the field duplicate samples suggests that any precision problems are largely confined to the concentration range at or below the IDL, which is generally below the concentration range of concern to the dater user.

3.2 Accuracy

The %R results of MS/MSDs and surrogate spikes are used to assess accuracy. MS/MSD recovery results are presented in Table 2. As previously stated, SDGs WA034, WA035 and WA036 included soil samples only (excluding field blanks), and SDGs WA020, WA021, WA022, WA023, WA024 and WA037 contained only water samples. Assessment of accuracy was made by calculating the percent recoveries of the 11 spiking compounds listed in subsection 3.1.1.

3.2.1 MS/MSD Samples

The %R values for the MS/MSD samples listed below exceeded the functional guidelines recovery criteria:

SDG No.	Compound	Matrix	% R MS/MSD	Recovery Limits (%)
WA020	4-nitrophenol	Water	83/*	10-80
	pentachlorophenol	Water	*/108	9-103
WA021	4-nitrophenol	Water	*/111	10-80
	2,4-dinitrotoluene	Water	*/102	24-96
	pyrene	Water	*/132	26-127
	pentachlorophenol	Water	138/130	9-103
WA022	4-nitrophenol	Water	95/*	10-80
	2,4-dinitrotoluene	Water	106/*	24-96
WA024	2-chlorophenol	Water	19/11	27-123
	1,4-dichlorobenzene	Water	4/0	36-97
	1,2,4-trichlorobenzene	Water	18/20	39-98
	4-chloro-3-methylphenol	Water	99/147	23-97
	4-nitrophenol	Water	160/147	10-80
	2,4-dinitrotoluene	Water	142/154	24-96
	pentachlorophenol	Water	200/200	9-103
	pyrene	Water	200/220	26-127
WA035	4-nitrophenol	Soil	81/*	10-80
WA036	4-nitrophenol	Soil	109/88	10-80
	2,4-dinitrotoluene	Soil	105/*	24-96
	pentachlorophenol	Soil	106/*	9-103

*These replicates met QC criteria.

Of the 264 MS/MSD analyses run in the semivolatile fraction, thirty (11.4 percent) exceeded QC limits. A notable number of exceedances occured in SDG WA024 (16), SDG WA021 (5) and WA036 (4). A high bias is indicated in the associated data for the particular compounds with high recoveries, and a low bias is indicated for compounds with low recoveries. The SDG with the most exceedances, SDG WA024 has both high and low recoveries in both the acid and base/neutral fractions. These results suggest a general problem in obtaining accurate results in samples of the same matrix, with potential biases being either high or low. The recovery exceedances do not suggest an overall analytical trend, but rather are isolated to each particular set (SDG) of samples.

3.2.2 Surrogate Spikes

Eight surrogate compounds were added by the laboratory to each environmental and QA/QC sample submitted for SVOC analysis. Surrogate spike recoveries for SVOC analyses were compared to the QC criteria in the functional guidelines as follows:

Surrogate	Solid Matrix (percent)	Aqueous Matrix (percent)
nitrobenzene-d5	23 to 120	35 to 114
2-fluorobiphenyl	30 to 115	43 to 116
terphenyl-d14	18 to 137	33 to 141
phenol-d6	24 to 113	10 to 94
2-fluorophenol	25 to 121	21 to 100
2,4,6-tribromophenol	19 to 122	10 to 123
2-chlorophenol-d4	20 to 130	33 to 110
1,2-dichlorobenzene-d4	20 to 130	16 to 110

2-Fluorobiphenyl, terphenyl-d14, 2-fluorophenol, and 2,4,6-tribromophenol are not target compounds; nitrobenzene-d5, phenol-d6, 2-chlorophenol-d4, and 1,2-dichlorobenzene-d4 are isotopically labeled target compounds. The use of these compounds as surrogates enables the laboratory to separate the surrogates from compounds of interest and to accurately calculate recoveries. Of the 1368 surrogate %Rs evaluated, 31 (2.3 percent) were outside QC limits. Surrogate recovery exceedances in SDGs WA024, WA035 and WA037 accounted for the majority (24) of that amount. The surrogate recovery results do not suggest an analytical trend.

3.2.3 Initial and Continuing Calibration

The %RSD and %D QC criteria exceedances and the analytes flagged based on those exceedances are given in Table 4. There were no RRF exceedances in any SDG for any target analyte, however, there were %RSDs and %Ds outside functional guidelines QC criteria. The %RSD and %D QC exceedances create a bias in the data relative to the other calibration information generated. It is not evident, however, that an absolute bias in the data exists. The data user should, for this reason, regard the qualified results imprecise rather than inaccurate. The %RSDs and %Ds that exceeded QC criteria do not suggest any systematic analytical problems with either accuracy or precision.

3.2.4 Conclusion

The QC data from the MS/MSD results suggest that any significant accuracy problems are isolated to a particular set of samples, e.g., SDG WA024, and do not indicate an analytical trend detrimental to accuracy throughout the nine SDGs. Surrogate spike recoveries and initial and continuing calibrations do not indicate any further systematic problems.

3.3 Representativeness

Method blanks and equipment rinsate blanks were analyzed for SVOCs to evaluate representativeness. These results are presented in Table 2. Di-n-butylphthalate, bis(2-ethylhexyl)phthalate and anthracene were detected at low levels in the various blanks. When more than one contaminated blank was associated with a given sample, only the highest

detected concentration for an individual target analyte in any associated QC blank was used for qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for organic analytes based on the following criteria. The validation qualifier codes used in the blank summary tables are described below.

> CRQL Validation Qualifier. If a sample result for the blank contaminant was less than the CRQL and less than 5 times the blank value for regular target compounds or 10 times the blank value for common laboratory contaminants (the blank action level), the sample result was rejected and amended as negative at the CRQL for the target compound.
>
> U Validation Qualifier. If a sample result for the blank contaminant was greater than the sample CRQL and less than the blank action level, the sample result for the blank contaminant was amended as a negative at the concentration reported in the sample results.
>
> No Action (NA). If a sample result for the blank contaminant was greater than the blank action level, the result was not amended.

The following presents a description of SVOCs detected in method blanks and equipment rinsate blanks. Corrective actions made for target analytes detected in the environmental samples are described for each SDG in Table 5.

3.3.1 Method Blanks

Method blank samples were analyzed with each SDG to identify compounds that may have been introduced through the analytical instrumentation or sample preparation. Di-n-butylphthalate was detected in the method blanks for SDGs WA020, WA034, WA035 and WA036 at concentration ranges of 19 ug/kg to 2,000 ug/kg and 0.5 ug/L to 16 ug/L. Bis(2-ethylhexyl) phthalate was detected in the method blanks for SDGs WA036 and WA037 at concentrations of 190 ug/kg and 14 ug/L, respectively. Anthracene was detected in the method blank for WA036 at 17 ug/kg.

3.3.2 Equipment Rinsate Blanks

The equipment rinsate blank samples are used to evaluate target analytes that may have been introduced by the sampling equipment or laboratory handling of the samples. Bis(2-ethyl-hexyl)phthalate was detected at 46 ug/L in the equipment rinsate blank for SDG WA036.

3.3.3 Conclusion

The target analytes detected in the QC blanks routinely occur at comparable concentrations in

laboratory analyses. The analytical results are considered to be representative; however, some of the analytical results were qualified (see Table 5). The application of blank qualification rules affects the completeness of the analytical data. This is discussed in Section 3.5.

3.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, except for di-n-butylphthalate (2,.000 ug/kg) in one method blank for SDG WA036, the method detection limits attained were below the CRQL. The comparability of the data is regarded as acceptable. Some samples were qualified due to low-level blank contamination (as discussed in Section 3.5), which raised the effective detection limits for the suspected blank contaminants in the affected samples.

3.5 Completeness

The completeness level attained for project SVOC field samples was 99.9 percent, which met the 96 percent DQO goal. This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. There were 14 data points rejected due to QC criteria exceedances (0 percent surrogate recovery of phenol in SDG WA020). Some data were qualified as "estimated" for various reasons. The remaining data were found to be acceptable.

The application of functional guidelines blank validation rules also affects data completeness. When samples are qualified due to contamination in an associated blank, a "5 times" or "10 times" action limit is set such that sample results below the action limit are flagged as "undetected" for the particular compound in question. This flagging procedure effectively rejects the concentration range between zero and the initial reported result, which becomes the new detection limit. It is possible that the levels of blank contamination detected could eliminate data in a necessary concentration range in some instances. In these cases, more data are needed to verify the existence of the compound in question at the site below the revised detection limit.

4.0 PESTICIDE/POLYCHLORINATED BIPHENYL ORGANIC COMPOUNDS

A total of 141 water and soil samples were analyzed for pesticides and PCB organic compounds. The samples were divided into 9 separate SDGs. This chapter discusses the QC supporting documentation as defined by the PARCC criteria, which are evaluated based on the DQOs. Pesticide and PCB column responses are given in Table 7.

4.1 Precision

MS/MSDs and duplicate sample pairs were used to assess precision. MS/MSD samples were analyzed in all SDGs. Only soil MS/MSD samples were analyzed in SDGs WA034, WA035 and WA036. Only water MS/MSDs were analyzed in SDGs WA020, WA021, WA022, WA023, WA024 and WA037. All SDGs, except WA024, contained duplicate sample pairs, which provided an additional measure of precision. SDGs with duplicate sample pairs were evaluated for precision with the understanding that results of the duplicate sample pairs may not be representative of concentrations found in the other samples within the SDG.

4.1.1 MS/MSD Samples

The functional guidelines RPD QC criteria for MS/MSD samples are as follows:

Compound	Soil RPD	Water RPD
Gamma-BHC (lindane)	50	15
Heptachlor	31	20
Aldrin	43	22
Dieldrin	38	18
Endrin	45	21
4,4-DDT	50	27

MS/MSD results for all SDGs are presented in Table 2. A total of 180 MS/MSD analyses were conducted. The following RPD QC exceedances were noted:

SDG No.	Compound	Matrix	RPD	RPD Limit
WA022	gamma-BHC	Water	17	15
	heptachlor	Water	30	20
	aldrin	Water	39	22
	4,4'-DDT	Water	37	27
WA035	gamma-BHC	Soil	51	50
	heptachlor	Soil	42	31
	dieldrin	Soil	47	38
	endrin	Soil	48	45

SDG No.	Compound	Matrix	RPD	RPD Limit
WA035	4,4'-DDT	Soil	57	50
	aldrin	Soil	64	43
WA037	aldrin	Water	31	22

A low level of precision (86.7 percent) is indicated in both water and soil matrices. The RPD exceedances in SDGs WA022 and WA035 are regarded as significant with an appreciable effect on the data quality of these two SDGs.

4.1.2 Duplicate Sample Pairs

Duplicate sample pairs were analyzed in SDGs WA034, WA035 and WA036 for the soil matrix, and SDGs WA020, WA021, WA022, WA023 and WA037 for the water matrix. SDG WA024 contained no field duplicate samples. All RPD results were within QC limits and represent acceptable precision. The majority of duplicate sample pair analytical results were negative. The consistency observed in the negative results suggests that any lack of precision is confined to the concentration range at or below the IDL, which is generally below the concentration range of concern to the data user.

4.1.3 Column Percent Differences

Pesticide/PCB analyses are conducted on a dual column gas chromatography system in which separate compound quantitations are performed on two different columns. The percent difference (%D) is then calculated to assess precision. The equation for %D is:

$$\%D = \frac{C(H) - C(L)}{C(L)} \times 100$$

Where: C(H) = The higher measured concentration on either column
C(L) = The lower measured concentration

%Ds approximate the level of precision attained in the quantitations of single analytes. Lower %Ds indicate higher precision while higher percent differences indicate lower precision. The percent differences for all quantitated compounds are given in Table 7. Column percent differences are specific to the particular analyte quantitated and, as such, do not indicate general analytical trends.

4.1.3 Conclusion

The MS/MSD results indicate that a low level of precision was attained in the associated samples (SDGs WA022 and WA035). A low number of detections suggest precision problems are largely confined to the concentration range near or below the IDL, which is generally below the concentration range of concern to the data user. It is essential in the case of negative results to

evaluate accuracy, particularly low biases, which could result in target analytes that are actually present being reported as false negatives. An unusually large number of high Column Percent Differences were observed, especially for the SDGs with soil matrices.

4.2 Accuracy

The percent recovery results of MS/MSDs and surrogate spikes are used to assess accuracy. MS/MSD recovery results are presented in Table 2. MS/MSD samples were analyzed in all SDGs. Only soil MS/MSD samples were analyzed in SDGs WA034, WA035 and WA036. Only water MS/MSDs were analyzed in SDGs WA020, WA021, WA022, WA023, WA024 and WA037. Assessment of accuracy was made by calculating the percent recoveries of the six spiking compounds: alpha-BHC, heptachlor, aldrin, dieldrin, endrin, and 4-4'-DDT.

4.2.1 MS/MSD Samples

Of the 180 MS/MSD analyses run, thirteen recoveries (7.2 percent) were outside functional guidelines QC criteria. MS/MSD results for all SDGs are presented in Table 2. The following MS/MSD QC exceedance was noted:

SDG No.	Compound	Matrix	%R MS/MSD	QC Limits (percent)
WA022	4,4'-DDT	Water	35/*	38-127
WA034	4,4'-DDT	Soil	*/198	23-134
	aldrin	Soil	*/0	34-132
WA035	gamma-BHC	Soil	*/138	46-127
	aldrin	Soil	*/138	34-132
	dieldrin	Soil	*/138	31-134
	4,4'-DDT	Soil	175/234	23-134
WA036(1)	aldrin	Soil	20/*	34-132
	4,4'-DDT	Soil	0/0	23-134
WA036(2)	4,4'-DDT	Soil	0/0	23-134

A large number of percent recoveries were above the QC criteria for the soil MS/MSDs in SDGs WA035 and WA036, indicating a high bias in the former and a low bias in the latter. The high bias has the potential to result in false positive detections of target analytes in the same SDG of the same matrix. The effect of high bias on negative results is that the reported IDL and CRQL may be slightly higher than the actual IDL or CRQL. Low biases can result in an analyte being present in the sample and not being detected (false negatives).

4.2.2 Surrogate Spikes

Two surrogate compounds were added by the laboratory to each environmental and QA/QC sample submitted for pesticides and PCB analysis. The surrogate spike compounds were

tetrachloro-m-xylene and decachlorobiphenyl. The % Rs of these compounds were evaluated on two gas chromatography columns simultaneously as per the CLP 1990 SOW. Surrogate spike recoveries were compared to the QC criteria stipulated in the functional guidelines, which are:

Surrogate	Solid Matrix (percent)	Aqueous Matrix (percent)
tetrachloro-m-xylene	60 to 150	60 to 150
decachlorobiphenyl	60 to 150	60 to 150

At the present time, these QC limits are considered by the SOW to be advisory only. For this project, however, data qualification actions were taken based on exceedances of these criteria. Of the 768 surrogates evaluated, 118 were outside QC limits (15.4 percent). According to the USEPA Statement of Work, the laboratory is not required to reanalyze surrogates outside the limits because they are considered advisory. Samples with high surrogate recoveries were biased high, and positive results in these samples were flagged as estimated. Samples with low surrogate recoveries were biased low; all data (both positive and negative) were flagged as estimated. If surrogate recoveries were below 10 percent, the sample was rejected. The samples that exceeded surrogate recovery limits were qualified accordingly during data validation. It is believed that the surrogate recovery problems are not limited to the individual samples but imply a possible systematic problem with the data overall.

4.2.3 Initial and Continuing Calibration Results

The %RSD exceedances are given in Table 4. Six minor exceedances were found in water SDGs WA021, WA022 and WA024 and two minor exceedances in soil SDG WA035. These results do not suggest a systematic analytical problem related to calibration.

4.2.4 Conclusion

The exceedances for the soil MS/MSDs in SDG WA034, WA035 and WA036 could indicate an isolated systematic problem with a matrix effect, instrumental analyses, or sample preparation. No other matrix-related problems are indicated. The large percentage of surrogate recoveries below the QC limits indicates a general problem attaining accuracy in the instrumental analyses.

4.3 Representativeness

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for organic analytes based on the following criteria. The validation qualifier codes used in the blank summary tables are described below.

> CRQL Validation Qualifier If a sample result for the blank contaminant was less than the CRQL and less than 5 times the blank value (the blank action level), the sample result was rejected and amended as negative at the CRQL for the

target compound.

U Validation Qualifier If a sample result for the blank contaminant was greater than the sample CRQL and less than the blank action level, the sample result for the blank contaminant was amended as a negative at the concentration reported in the sample results.

No Action (NA) If a sample result for the blank contaminant was greater than the blank action level, the result was not amended.

The following presents a description of pesticides and PCBs detected in method blanks and equipment or rinsate blanks. Corrective actions made for target analytes detected in the environmental samples are described for each SDG in Table 5.

4.3.1 Method Blanks

Method blank samples were analyzed with each SDG to identify compounds that may have been introduced through the analytical instrumentation or sample preparation. There were an excessive number of positive detections of target compounds in the soil method blanks for WA034, WA035 and WA036. Aldrin was detected in the soil method blanks for SDGs WA034, WA035 and WA036 at a concentration range of 0.088 ug/kg to 0.60 ug/kg. Dieldrin was detected in the soil method blanks of the same SDGs at a concentration range of 0.13 ug/kg to 1.5 ug/kg. 4,4'-DDT was detected in the three soil SDGs at a concentration range of 0.12 ug/kg to 12.0 ug/kg, and methoxychlor was detected at a concentration range of 0.84 ug/kg to 5.1 ug/kg in the same SDGs. Aldrin was detected at 0.028 ug/L in the water method blanks for SDG WA022. There were no other detection of target compounds in the method blanks for the other five water SDGs.

4.3.2 Equipment Rinsate Blanks

The equipment rinsate blank samples are used to evaluate target analytes that may have been introduced by the sampling equipment or laboratory handling of the samples. Heptachlor was detected in the equipment rinsate blank for SDG WA022 at 0.018 ug/L.

4.3.3 Overall Assessment

The target analytes detected in the QA/QC blanks representa higher level of contamination than is typical of laboratory analysis. The positive detections of 4,4'-DDT in the soil method blanks associated with SDGs WA035 and WA036 exceeded the CRQL for this analyte. The analytical results, except for 4,4'-DDT in SDGs WA035 and SDG036, are considered to be fairly representative; however, some of the analytical results were qualified (see Table 5). The application of the blank qualification rules affects completeness of the analytical data.

4.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the CRQL. The comparability of the data is regarded as acceptable for the water SDGs, but questionable for the soil SDGs due to an unusually large amount of blank contamination. Some samples were qualified due to low-level blank contamination, which raised the effective detection limits for the suspected blank contaminants in those samples.

4.5 Completeness

The completeness level attained for project pesticide and PCB organic field samples was 97.0 percent (145 out of 4872 were rejected). This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. The rejected data are given in Table 6. The 96 percent DQO completeness limit was attained.

5.0 METALS AND CYANIDE

A total of 214 water, dissolved metals and soil samples were analyzed for metals and cyanide. The samples were divided into 9 separate SDGs. This section discusses the QC supporting documentation as defined by the PARCC criteria, which are evaluated based on the project DQOs.

5.1 Precision

Metals and cyanide analyses are different from organics analyses in that no matrix spike duplicate sample is evaluated to measure precision. Instead, an unspiked laboratory duplicate is analyzed for each SDG. The two unspiked replicate results are then compared using RPD QC criteria for detections at concentrations at least 5 times the CRDL. The RPD QC criteria for laboratory duplicate samples are 20 percent for the water matrix and 35 percent for soil matrices. The RPD limit for water field duplicates is 30 percent and for soil field duplicate is 60 percent. Analytical values less than 5 times the CRDL are evaluated based on a CRDL standard.

5.1.1 Laboratory and Field Duplicates

The following laboratory and field duplicate results were outside the QC criteria (Table 2).

SDG No.	Analyte	Matrix	RPD	RPD Limit
WA020	zinc	Water (total)	158	20
WA022	aluminum	Water (total)	151	30
	iron	Water (total)	48	30
WA023	iron	Water (Diss.)	56	20
	chromium	Water (total)	70	30
WA034	calcium	Soil	91	60
WA035	aluminum	Soil	30	35
	iron	Soil	40	35
	aluminum	Soil	83	60
	cakcium	Soil	122	60
	iron	Soil	153	60
	manganese	Soil	76	60
WA036	aluminum	Soil	72	60
	iron	Soil	86	60
	lead	Soil	106	60
WA037	aluminum	Water (total)	22	20
	zinc	Water (total)	33	20
	zinc	Water (Diss.)	51	30
	aluminum	Water (total)	50	30
	calcium	Water (total)	34	30
	iron	Water (total)	50	30

SDG No.	Analyte	Matrix	RPD	RPD Limit
WA037	sodium	Water (total)	50	30
	calcium	Water (Diss.)	45	30
	iron	Water (Diss.)	65	30
	sodium	Water (Diss.)	60	30

These analytical results and RPD exceedances are typical of inorganics analyses and do not indicate an overall or systematic problem with precision. The data associated with each deviant RPD, however, were flagged as estimated in the data validation process. The samples associated with the above SDGs were qualified as estimated for the same metal of the same matrix within the same SDG as the results listed above. The overall precision of the analytical results was 94.2 percent, which failed to meet the DQO goal of 96 percent.

5.2 Accuracy

The percent recovery results of matrix spike samples are used to assess accuracy for the inorganics analyses. Matrix Spike (MS) samples were analyzed for each group of samples of a particular matrix type and for each concentration range within each SDG, as the analytical method requires (SOW ILM02.1, September 1991, p. E-19). MS recovery results are presented in Table 2.

5.2.1 MS Analysis

The matrix spike recovery limits are 75 to 125 percent. However, spike recovery limits do not apply when the sample concentration exceeds the spike concentration by a factor of four or more (these results are presented in Table 8). The following spike recoveries were outside the QC limits:

SDG No.	Analyte	Matrix	Percent Recovery
WA022	thallium	Water (total)	222
	cyanide	Water (total)	36
	selenium	Water (Diss.)	131
	thallium	Water (Diss.)	214
WA023	aluminum	Water (total)	167
	selenium	Water (total)	0
	selenium	Water (Diss.)	155
WA035	selenium	Soil	24
	mercury	Soil	57
WA036	mercury	Soil	74

These %R values suggest a minimal amount of interference from the sample matrix. On an individual analyte basis inaccuracies were introduced in the environmental samples associated with

the above matrix spike samples. The environmental samples were flagged accordingly during data validation.

Results listed above with %Rs exceeding 125 percent suggest a high bias in the data. Positive results for analytes with percent recoveries greater than 125 percent in samples in the same SDG were flagged as estimated. Results listed with recoveries below 75 percent suggest a low bias in the data, and both associated positive and negative results were flagged as estimated. The %R exceedances do not suggest a general analytical trend detrimental to accuracy.

5.2.2 Laboratory Control Samples (LCS)

Laboratory Control Samples (LCSs) provide another means to evaluate accuracy within a particular SDG. The LCS serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. Eleven LCSs were processed and analyzed for the 9 SDGs. Of the 260 percent recoveries evaluated, 5 were outside the 80 to 120 percent QC limits. The acceptability percentage was 98.1 percent.

5.2.3 Initial and Continuing Calibration

All %RSDs and %Ds were within functional guidelines QC limits for each SDG. The %RSD and %D values do not suggest any systematic analytical problems with either accuracy or precision.

5.2.4 Overall Assessment

Overall, the accuracy percentage (laboratory spike recoveries) of the metals results was 97.0 percent, which met the DQO goal of 96 percent.

5.3 Representativeness

Preparation blanks, equipment rinsate blanks, and initial and continuing calibration blanks were analyzed for inorganics to evaluate representativeness. Blank analysis results are presented in Table 5. The highest detected concentration for an individual target analyte in any associated blank was used for data qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for inorganic analytes based on the following criteria. The validation qualifier codes utilized in the blank summary tables are described below.

U Undetected If a sample result for the blank contaminant was less than five times the blank value, the sample result was amended as negative.

UJ Undetected/Estimated If a sample result for the blank contaminant was less than the sample IDL when the absolute value of the negative blank value was greater

than the IDL, the sample result for the blank contaminant was amended as estimated negative.

J Estimated If a sample result for the blank contaminant was greater than the IDL and less than five times the blank value, when the absolute value of the negative blank value is greater than the IDL the result was amended as estimated at the laboratory reported value.

The following presents a description of analytes detected in the inorganics blanks. Corrective actions made for target analytes detected in the environmental samples are described for each SDG in Table 5.

5.3.1 Preparation Blanks

Preparation blank samples were analyzed with each SDG for inorganics samples to identify target analytes that may have been introduced through the analytical instrumentation or sample preparation. Analytes routinely detected in the preparation blanks are calcium, iron, lead, magnesium, manganese, nickel and zinc. Preparation blanks are designated "PBW" for water blanks and "PBS" for soil preparation blanks in Table 5.

5.3.2 Equipment Rinsate Blanks

Positive results from the equipment rinsate blank samples identify target analytes that may have been introduced by the sampling equipment or inadequate decontamination procedures. Typically, aluminum, barium, calcium, sodium and zinc were detected in the equipment rinsate blanks. Equipment rinsate blanks are designated "rinsate" in Table 5.

5.3.3 Initial and Continuing Calibration Blanks

Initial and continuing calibration blanks are used to identify and estimate the effects of carryover contamination and baseline shift. Many analytes were routinely detected in the calibration blanks at low levels including aluminum, barium, calcium, copper, iron, lead, magnesium, manganese, potassium, selenium, sodium, vanadium, and zinc. These detections were not used for implementation of data qualification.

5.3.4 Conclusion

Blank contaminations were detected at concentrations commonly observed in inorganic laboratory analysis. The frequency of these detections, however, was unusually high for the analytical methods used. The data are considered to be representative due to functional guidelines blank qualification. The application of the blank qualification rules does have implications on the completeness of the analytical data, however, which is discussed in Section 5.5.

5.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the CRDLs. Some samples were qualified due to blank contamination, which raised the effective detection limits for the suspected blank contaminants in those samples. Otherwise, the comparability of the data is considered acceptable.

5.5 Completeness

The completeness level attained for the project metals and cyanide samples was 99.4 percent (27 out of 4,896 were rejected). This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. The rejections are given in Table 6. The completeness percentage met the 96 percent DQO goal.

Another type of data qualification having a significant effect on completeness was the application of blank validation qualifiers. When samples are qualified due to contamination in an associated blank, a "5 times" action limit is set such that sample results below the action limit are flagged as "undetected" for the particular analyte in question. This flagging procedure effectively rejects the concentration range between zero and the initial reported result, which becomes the new detection limit. It is possible that the levels of blank contamination detected could eliminate data in a necessary concentration range in some instances. In these cases, reanalysis is needed to verify the presence of the compound in question at the site below the revised detection limit.

6.0 Variances in Analytical Performance

The laboratory used standard analytical methods for all of the analyses throughout the project. No systematic variances in analytical performance were noted according to the SOW.

The quality of analytical results achieved in the pesticide and PCB fraction throughout the project could have been improved with the reanalysis of samples in SDGs with surrogate recoveries consistently outside QC limits. Also, the large number of high Column Percent Differences observed in the analyses for the Pesticide/PCB fraction might be reduced should more attention be directed to instrument maintenance and adjustment. An inordinantly large number of detections were noted in the inorganics blanks. These detections may have been caused by improper instrument maintanance or adjustment or improper evaluation of instrument parameters.

7.0 Summary of PARCC Criteria

Table 7-1 presents a summary of PARCC criteria for all SDGs. Each PARCC criterion is discussed in detail in the following sections.

Precision

The precision results by analytical fraction were as follows:

Analyses	Precision Acceptability Percentage
VOCs	95.0
SVOCs	96.2
Pesticides and PCBs	86.7
Metals and cyanide	94.2
Wet chemistry	100

The overall precision acceptability was 91.6 percent with 37 of 442 RPD QC analyses exceeding the QC criteria. This result did not meet the 96 percent DQO goal.

Accuracy

By analytical fraction accuracy was as follows:

Analyses	Accuracy Acceptability Percentage
VOCs	100
SVOCs	88.6
Pesticides and PCBs	92.8

Analyses	Accuracy Acceptability Percentage
Metals and cyanide	97.0
Wet chemistry	82.6

The overall accuracy acceptability was 91.6 percent with 84 of 999 percent recovery analyses exceeding the QC limits. This result did not meet the 96 percent DQO goal.

Representativeness

A total of 277 blanks were evaluated with an average of 156 analytes per SDG being evaluated. 32 blanks exceeded the CRQLs/CRDLs. The representativeness of the project data is considered acceptable after qualification for blank contamination.

Completeness

Data rejections accounted for only 0.8 percent of 25,552 total analyses. By analytical fraction completeness for all SDGs is as follows:

Type	Total Analyses	No. of Rejects	% Completeness
VOCs	5,082	8	99.8
SVOCs	9,920	14	99.9
Pesticides and PCBs	4,872	145	97.0
Metals and cyanide	4,896	27	99.4
Wet chemistry	770	0	100
Total	25,540	194	99.2

The completeness percentage based on rejected data met the 96 percent project DQO goal. A less quantifiable loss of data occurred in the application of blank qualifications. The amount and type of blank qualifications is considered to be unusually high in the inorganics (metals) and pesticide/ PCBs fractions, which led to the loss of many low-level results.

Comparability

Sampling frequency requirements were met in obtaining duplicates and necessary field blanks. The laboratory used standard analytical methods for their analyses. The analytical results were reported in correct standard units. The overall data comparability is considered acceptable.

Table 7-1

Sample Event PARCC Criteria Summary
Operable Unit 8
NAS Cecil Field

SDG	Precision	Accuracy	Representa-tiveness	Complete-ness	Compara-bility
WA020	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable	Acceptable with qualifica-tion	Acceptable
WA021	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable	Acceptable with Qualifica-tion	Acceptable
WA022	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable	Acceptable with qualifica-tion	Acceptable
WA023	Acceptable with qualifica-tion	Acceptable with qualifi-tion	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable with qualifica-tion
WA024	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable	Acceptable	Acceptable

Table 7-1 (Continued)

Sample Event PARCC Criteria Summary

SDG	Precision	Accuracy	Representa-tiveness	Complete-ness	Compara-bility
WA034	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable
WA035	Acceptable with qualifica-tion	Aceptable with qualifica-tion	Acceptable wirh qualifica-tion	Acceptable with qualifica-tion	Acceptable
WA036	Acceptable with qualifica-tion	Acceptablw with qualifica-tion	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable with qualifica-tion
WA037	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable

Table 1
LIST OF ENVIRONMENTAL SAMPLES AND SAMPLE DELIVERY GROUP IDENTIFIERS
OPERABLE UNIT 8
NAS CECIL FIELD JACKSONVILLE, FLORIDA

Laboratory Analysis Correlation Table		
SDG Number	**Laboratory**	**Samples**
WA020	Wadsworth/Alert Laboratories	CF3MW8S, CF3MW8SRE, CF3MW8SF, CF3MW9I, CF3MW9IRE, CF3MW9IR, CF3MW10D, CF3MW10DF, CF3MW11I, CF3MW11IF, CF3MW12D, CF3MW12DF, CF3MW16S, CF3MW16SRE, CF3MW16SF, CF3MW17D, CF3MW17DF, CF3MW17DD, CF3MW17DDF, CF3MW20S, CF3MW20SF, CF3MW21I, CF3MW21IF, CF3MW22D, CF3MW22DF, CF30F, CF30FF, CF3SC, CF3SCRE, CF3SCF, CF3MW9IR, CF3MW9IRF, CF3MW22DR, CF3MW22DRF, CF3MW9IT, CF3MW17DT, TRPBLK, CF3MW11IMS, CF3MW11IMSD, CF3MW11ID**, CF3MW11IS*, CF3MW17DD*MS, CF3MW17DD*MSD, CF3MW10DMS, CF3MW10DMSD, CF3MW9IRMS, CF3MW9IRMSD, CF3MW22DRMS, CF3MW22DRMSD
WA021	Wadsworth/Alert Laboratories	CF3MW24D, CF3MW24DF, CF3MW24DD*, CF3MW24DD*F, CF3MW29D, CF3MW29DF, CF3MW30DD, CF3MW30DDF, CF3MW30DDR, CF3MW30DDRF, CF3MW24DT, CF3MW30DDT, CF3MW29DMS, CF3MW29DMSD, CF3MW29DD**, CF3MW29DS**, CF3MW29DFD**, CF3MW29DFS**, CF3MW30DDMS, CF3MW30DDMSD
WA022	Wadsworth/Alert Laboratories	CF3MW1, CF3MW1RE, CF3MW1F, CF3MW3S, CF3MW3SF, CF3MW3SD*, CF3MW3SD*F, CF3MW4S, CF3MW4SF, CF3MW5S, CF3MW5SF, CF3MW6S, CF3MW6SF, CF3MW7D, CF3MW7DRE, CF3MW7DF, CF3MW7DD, CF3MW7DDF, CF3MW7S, CF3MW7SF, CF3MW18S, CF3MW18SF, CF3MW19D, CF3MW19DF, CF3MW27D, CF3MW27DF, CF3MW33DD, CF3MW33DDF, CF3MW6SR, CF3MW7DDR, CF3MW4ST, CF3MW6SRT, CF3MW7DDT, CF3MW33DDT, CF3MW1MS, CF3MW1MSD, CF3MW1REMS, CF3MW1REMSD, CF3MW1D**, CF1MW1S**, CF1MW1FD**, CF3MW1FS**, CF3MW27DMS, CF3MW27DMSD, CF3MW7DDMS, CF3MW7DDMSD, CF3MW7SMS, CF3MW7SMSD, CF3MW6SRMS, CF3MW6SRMSD
WA023	Wadsworth/Alert Laboratories	CF3MW13S, CF3MW13S F, CF3MW14I, CF3MW15D, CF3MW15D F, CF3MW15DT, CF3MW25S, CF3MW25S F, CF3MW26I, CF3MW26I F, CF3MW26ID, CF3MW26ID MS, CF3MW26ID MSD, CF3MW26ID F, CF3MW28S, CF3MW28S F, CF3MW28SR, CF3MW28SR F, CF3MW32D, CF3MW32D F, CF3MW31S, CF3MW31S F, CF3MW23S, CF3MW23S MS, CF3MW23S MSD, CF3MW23S D, CF3MW23S S, CF3MW23S F, CF3MW23S FD, CF3MW23S FS

Table 1 (Cont'd)

Laboratory Analysis Correlation Table		
SDG Number	**Laboratory**	**Samples**
WA024	Wadsworth/Alert Laboratories	CF3MW34S, CF3MW34SRE, CF3MW34SF, CF3MW35D, CF3MW35DF, CF3MW34SR, CF3MW34SRF, CF3MW34ST, CF3MW34SMS, CF3MW34SMSD, CF3MW34SREMS, CF3MW34SREMSD, CF3MW34SRMS, CF3MW34SRMSD, CF3MW35DMS, CF3MW35DMSD, CF3MW35DD* CF3MW35DS*, CF3MW35DFD*, CF3MW35DFS*
WA034	Quanterra Environmental Services	CF3SS2, CF3SB2, CF3SS3, CF3SB3, CF3SS4, CF3SB4, CF3SS5, CF3SB5, CF3SB5MS, CF3SB5MSD, CF3SS6, CF3SB6, CF3SB6R, CF3SB6RF, TRIP-BLANK, CF3SS7, CF3SB7, CF3SS8, CF3SB8, CF3SS9, CF3SB9, CF3SS10, CF3SS10D, CF3SS10S, CF3SS10MS, CF3SS10MSD, CF3SS10D, CF3SS10DD, CF3SS10DS, CF3SS7RE, CF3SB7RE, CF3SS8RE, CF3SB8RE, CF3SS9RE, CF3SB9RE, CF3SS10RE, CF3SS10REMS, CF3SS10REMSD, CF3SS10DRE
WA035	Quanterra Environmental Services	CF3SB10, CF3SB10RE, CF3SB10MS, CF3SB10MSD, CF3SB10REMS, CF3SB10REMSD, CF3SB10D*, CF3SB10S*, CF3SB10D, CF3SB10DRE, CF3SB11, CF3SB11RE, CF3SB11RE2, CF3SB12, CF3SB12RE, CF3SB13, CF3SB13RE, CF3SS11, CF3SS11RE, CF3SS12, CF3SS12RE, CF3SS13, CF3SS13RE, CF3SS14, CF3SS14RE, CF3SS15, CF3SS15RE, CF3SS16, CF3SS17, CF3SS18, CF3SS19, CF3SS19RE, CF3SS20, CF3SS20MS, CF3SS20MSD, CF3SS20D*, CF3SS20S*, CF3SS20D, CF3SS20DRE, CF3SS21, CF3SS22, CF3SS23, CF3SS24
WA036	Quanterra Environmental Services	CF3SS24D, CF3SB25, CF3SB25 RE, CF3SB26, CF3SB26 RE, CF3SB27, CF3SB27 D, CF3SB27 S, CF3SB27 MS, CF3SB27 MSD, CF3SB27 RE, CF3SB27 REMS, CF3SB27 REMSD, CF3SB27D, CF3SB27D RE, CF3SB28, CF3SB28 RE, CF3SB29, CF3SB29 RE, CF3SB30, CF3SB30 RE, CF3SB31, CF3SB31 RE, CF3SB32, CF3SB32 RE, CF3SB32D, CF3SB32D RE, CF3SS1, CF3SS1 RE, CF3SB1, CF3SB1 RE, CF3SS1R, CF3SS1R F, CF3SS32R, CF3SS32R F, CF3SS1RT, CF3SD1, CF3SD1 D, CF3SD1 S, CF3SD1 MS, CF3SD1 MSD, CF3SD1D, CF3SD2, CF3SW1R, CF3SW1R F, CF3SD1RE2
WA037	Quanterra Environmental Services	CF3MW13S, CF3MW13SDL, CF3MW13SF, CF3MW28S, CF3MW28SDL, CF3MW28SF, CF3SC2, CF3SC2F, CF3SW1, CF3SW1F, CF3SW1D, CF3SW1DF, CF3SW2, CF3SW2F, CF30F2, CF30F2F, CF3SW2T, CF3MW13ST, CF3SW1MS, CF3SW1MSD, CF3SW1D*, CF3SW1S*, CF3SW1FD*, CF3SW1FS*

Table 2
NON-COMPLIANT MATRIX SPIKE/MATRIX SPIKE DUPLICATES
OPERABLE UNIT 8
NAS CECIL FIELD JACKSONVILLE, FLORIDA

MATRIX SPIKE SUMMARY TABLE	UNITS	MS SDG NO. WA020			MSD SDG NO. WA020			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS								
toluene	ug/L	0	12	120*	0	10	100*	18
benzene	ug/L	0	12	120*	0	10	100*	18
* Within QC limits								
SEMIVOLATILE ORGANIC COMPOUNDS								
4-nitrophenol	ug/L	0	62	83	0	54	72*	14*
pentachlorophenol	ug/L	0	60	80*	0	81	108	30*
pyrene	ug/L	0	41	82*	0	61	122*	39
* Within QC limits								
PESTICIDE/PCB ORGANICS								
(All criteria were met)		-	-	-	-	-	-	-
INORGANICS								
zinc	ug/L	36.53	-	-	4.33	-	-	158

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE	UNITS	MS SDG NO. WA021			MSD SDG NO. WA021			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS								
4-nitrophenol	ug/L	0	64	85	0	83	111	26*
2,4-dinitrotoluene	ug/L	0	48	96*	0	51	102	6*
pyrene	ug/L	0	91	121	0	99	132	9*
pentachlorophenol	ug/L	0	64	128	0	65	130	1*
* criteria were met								
PESTICIDE/PCB ORGANICS (All criteria were met)		-	-	-	-	-	-	-
INORGANICS (All criteria were met)		-	-	-	-	-	-	-

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE	UNITS	MS SDG NO. WA022			MSD SDG NO. WA022			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS								
4-nitrophenol	ug/L	0	71	95	0	79	79*	18*
2,4-dinitrotoluene	ug/L	0	53	106	0	92	92*	14*
* Within QC limits								
PESTICIDE/PCB ORGANICS								
gamma-BHC	ug/L	0	0.43	86*	0	0.51	102*	17
heptachlor	ug/L	0	0.26	52*	0	0.35	70*	30
aldrin	ug/L	0	0.23	46*	0	0.34	68*	39
4,4'-DDT	ug/L	0	0.35	35	0	0.51	51*	37
* Within QC limits								
INORGANICS								
cyanide (total)	ug/L	0	36.1	36	N/A	-	-	-
thallium (total)	ug/L	0	111	222	-	-	-	-
selenium (Diss.)	ug/L	0	13.1	131	-	-	-	-
thallium (Diss.)	ug/L	0	107	214	-	-	-	-

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE	UNITS	MS SDG No. WA023			MSD SDG No. WA023			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
PESTICIDE/PCB ORGANICS (All criteria were met)		-	-	-	-	-	-	-
INORGANICS selenium (Total) selenium (Dissolved)	ug/L	0 0	0 15.5	0 155	N/A N/A	N/A N/A	N/A N/A	N/A N/A

MATRIX SPIKE SUMMARY TABLE	UNITS	MS SDG NO. WA024			MSD SDG NO. WA024			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS 1,2,4-trichlorobenzene *QC criteria met	ug/L	0	28	56*	0	39	78*	33
PESTICIDE/PCB ORGANICS (All criteria were met)		-	-	-	-	-	-	-
INORGANICS (All criteria were met)		-	-	-	-	-	-	-

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE	UNITS	MS SDG NO. WA034			MSD SDG NO. WA034			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
PESTICIDE/PCB ORGANICS 4,4'-DDT aldrin	ug/kg	- -	- -	- -	8.6 0.77	84 0	198* 0	- 184*
INORGANICS (All criteria were met)		-	-	-	-	-	-	-

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE	UNITS	MS SDG NO. WA035			MSD SDG NO. WA035			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS								
CF3SB10MS / MSD:								
1,1-dichloroethane	ug/kg	-	-	*	-	-	*	34
SEMIVOLATILE ORGANIC COMPOUNDS								
CF3SB10M / MSD:								
4-nitrophenol	ug/kg	0	2500	81	-	-	*	*
PESTICIDE/PCB ORGANICS								
CF3SB10REMS / MSD:								
gamma-BHC	ug/kg	-	-	*	-	-	138	*
aldrin		-	-	*	-	-	18	64
dieldrin		-	-	*	-	-	138	*
4,4'-DDT		-	-	175	-	-	234	*
CF3SS20MS / MSD:								
gamma-BHC	ug/kg	-	-	*	-	-	*	51
heptachlor		-	-	*	-	-	*	42
dieldrin		-	-	*	-	-	*	47
endrin		-	-	*	-	-	*	48
4,4'-DDT		-	-	*	-	-	*	57
INORGANICS								
CF3SB10:								
mercury	ug/kg	0	0.3372	57.2	-	-	-	-
CF3SS20:								
selenium	ug/kg	0.998	1.573	24.4	-	-	-	-
iron		-	-	-	-	-	-	43.1
aluminum		-	-	-	-	-	-	40.0

* All criteria were met

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE	UNITS	MS SDG No. WA036			MSD SDG No. WA036			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS								
(All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS								
CF3SB27REMS/CF3SB27REMSD								
1,2,4-trichlorobenzene	ug/kg	0	2000	95	0	1500	71	29
4-nitrophenol	ug/kg	0	3500	109	0	2800	88	21
2,4-dinitrotoluene	ug/kg	0	2200	105	0	1700	81	26
pentachlorophenol	ug/kg	0	3400	106	0	1900	59	57
PESTICIDE/PCB ORGANICS								
aldrin	ug/kg	0	4.6	20	0	11	48	82
4,4'-DDT	ug/kg	110	65	0	110	47	0	0
INORGANICS								
mercury	mg/kg	0	0.526	74.0	N/A	N/A	N/A	N/A

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE	UNITS	MS SDG NO. WA037			MSD SDG NO. WA037			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
PESTICIDE/PCB ORGANICS CF3SW1MS / MSD: aldrin * criteria were met	ug/L	-	-	*	-	-	*	31
INORGANICS CF3SW1D*: aluminum zinc CF3SW1FD*: zinc * criteria were met	ug/L ug/L ug/L	- - -	- - -	* * *	- - -	- - -	- - -	22 33 51

Table 3
COMPARISION BETWEEN FIELD DUPLICATE SAMPLES
OPERABLE UNIT 8
NAS CECIL FIELD JACKSONVILLE, FLORIDA

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG NO.	Sample ID	Parameter	Sample %R	Duplicate %R	RPD	RPD Limit
WA020		Organics				
	CF3MW11I	toluene	-	-	18	13
		benzene	-	-	18	13
		bis(2-ethylhexyl)phthalate	-	-	48	20
		Inorganics				
	CF3MW11IF	zinc	-	-	158	20

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG NO.	Sample ID	Parameter	Sample %R	Duplicate %R	RPD	RPD Limit
WA022		Organics				
	CF3MW3S / 3SD	trichloroethene	70 ug/L	110 ug/L	44	30
		xylene (total)	9 ug/L	16 ug/L	56	30
	CF3MW1MS / MSD	gamma-BHC	86*	102*	17	15
		heptachlor	52*	70*	30	20
		aldrin	46*	68*	39	22
		4,4'-DDT	68	51*	37	27
		* Within QC limits				
		Inorganics				
	CF3MW3S / 3SD	aluminum	47000 ug/L	6650 ug/L	151	30
		iron	10200 ug/L	6260 ug/L	48	30

RDP = Ralative Percent Difference
ug/L = Micrograms per Liter
ug/kg = Micrograms per Kilogram
mg/kg = Milligrams per Kilogram

Table 3 (Cont'd)

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG No.	Sample ID	Parameter	Sample	Duplicate	RPD	RPD Limit
WA023		VOLATILE ORGANICS				
		(All criteria were met)	-	-	-	-
		SEMIVOLATILE ORGANICS				
		(All criteria were met)	-	-	-	-
		PESTICIDE/PCB ORGANICS				
		(All criteria were met)	-	-	-	-
		INORGANICS				
	CF3MW26ID (Field Dup.)	chromium	24.6 (ug/L)	11.9 (ug/L)	69.6	30
	CF3MW23SFD (Lab Dup.)	iron	234 (ug/L)	134 (ug/L)	55.9	20

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG NO.	Sample ID	Parameter	Sample	Duplicate	RPD	RPD Limit
WA034		Organics				
	CF3SS10/10D	xylene	-	-	25	-
		Inorganics				
	CF3SS10/10D	calcium	-	-	90.7	-

Table 3 (Cont'd)

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG NO.	Sample ID	Parameter	Sample mg/kg	Duplicate mg/kg	RPD	RPD Limit
WA035		Organics				
		(All criteria were met)	-	-	-	-
		Inorganics				
	CF3SS20/D	aluminum	651	1580	83	60
	CF3SS20/D	calcium	13800	57200	122	60
	CF3SS20/D	iron	248	1860	153	60
	CF3SS20/D	manganese	20.8	46.5	76	60

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG No.	Sample ID	Parameter	Sample	Duplicate	RPD	RPD Limit
WA036		VOLATILE ORGANICS				
		(All criteria were met)	-	-	-	-
		SEMIVOLATILE ORGANICS				
		(All criteria were met)	-	-	-	-
		PESTICIDE/PCB'S				
		(All criteria were met)	-	-	-	-
		INORGANICS				
	CF3SB32/ CF3SB32D (field dup.)	aluminum	525	1120	72.3	60
		iron	157	394	86.0	60
		lead	2.0 (mg/kg)	6.5 (mg/kg)	105.9	60

Table 3 (Cont'd)

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG NO.	Sample ID	Parameter	Sample ug/L	Duplicate ug/L	RPD	RPD Limit
WA037		Organics				
		(All criteria were met)	-	-	-	-
		Inorganics				
	CF3SW1 / CF3SW1D	aluminum	419	698	50	30
		calcium	19500	13900	34	30
		iron	742	1210	50	30
		sodium	14000	7620	59	30
	CF3SW1F / CF3SW1DF	calcium	22300	14100	45	30
		iron	341	670	65	30
		sodium	16100	8070	66	30

Table 4
INITIAL AND CONTINUING CALIBRATION SUMMARY OF NON-COMPLIANCE
OPERABLE UNIT 8
NAS CECIL FIELD JACKSONVILLE, FLORIDA

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA020	INITIAL 1/31/94	CONTIN-UING 3/16/94 08:06	CONTIN-UING 3/17/94 07:18	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	%D	%D	%D
VOLATILE ORGANIC COMPOUNDS						
acetone	47.0	102	-	-	-	-
2-butanone	51.6	31.4	33.1	-	-	-
2-hexanone	-		30.8	-	-	-
QUALIFICATION	-	UJ (-)	J (+)	-	-	-
SAMPLES AFFECTED	-	All except CF3MW16S	None	-	-	-

%RSD = Percent Relative Standard Deviation
%D = Percent Difference
J (+) = Estimate All Positive Results

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA020	INITIAL	CONTIN-UING 3/23/94 08:02	CONTIN-UING 3/30/94 08:36	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
3-nitroaniline	-	42.6	-	-	-	-
benzo(a)anthracene	-	-	43.5	-	-	-
QUALIFICATION	-	J (+)	J (+)	-	-	-
SAMPLES AFFECTED	-	None	None	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA021	INITIAL 1/31/94	CONTIN-UING 3/17/94 07:18	CONTIN-UING 3/18/94 07:56	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
acetone	47.0	-	110	-	-	-
2-butanone	51.6	33.1	-	-	-	-
2-hexanone	-	30.8	-	-	-	-
4-methyl-2-pentanone	-	-	27.6	-	-	-
QUALIFICATION	J (+)	J (+)	UJ (-)	-	-	-
SAMPLES AFFECTED	CF3MW30DDR CF3MW30DDT	none	CF3MW24D CF3MW24DD CF3MW24DT	- - -	- - -	- - -

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA021	INITIAL 2/28/94	CONTIN-UING 3/30/94 08:36	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
3-nitroaniline	39.1		-	-	-	-
3,3'-dichlorobenzidine		43.5	-	-	-	-
QUALIFICATION	J (+)	J (+)	-	-	-	-
SAMPLES AFFECTED	none	none	-	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA022	INITIAL 4/1/94	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
acetone	41.8	-	-	-	-	-
QUALIFICATION	J (+)					
SAMPLES AFFECTED	CF3MW6SR CF3MW7DDR CF3MW4ST CF3MW6SRT CF3MW7DDT CF3MW33DDT	- - - - - -	- - - - - -	- - - - - -	- - - - - -	- - - - - -

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA022	INITIAL 2/28/94	CONTIN-UING 4/11/94 09:25	CONTIN-UING 4/12//94 09:34	CONTIN-UING 4/13/94 09:04	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
3-nitroaniline	39.1	43.4	43.4	53.3	-	-
4-nitroaniline	-	-	27.3	-	-	-
3,3'-dichlorobenzidine	-	-	31.3	-	-	-
4-methylphenol	-	-	-	28.7	-	-
QUALIFICATION	J (+)	J (+)	J (+)	J (+)	-	-
SAMPLES AFFECTED	None	None	None	CF3MW7S	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA022	INITIAL 4/5/94 Col. 1	INITIAL 4/5/94 Col. 2	INITIAL 4/14/94 Col. 2	CONTIN- UING	CONTIN- UING	CONTIN- UING
PARAMETER	% RSD	% RSD	%RSD	% D	% D	% D
PESTICIDE/PCB ORGANIC COMPOUNDS						
alpha-BHC	21.4	-	21.8	-	-	-
heptachlor	26.8	-	-	-	-	-
methoxychlor	-	21.5	-	-	-	-
QUALIFICATION	J (+)	J (+)	J (+)	-	-	-
SAMPLES AFFECTED	None	None	None	-	-	-

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG No WA 023	INITIAL 4/1/94	CONTIN- UING	CONTIN- UING	CONTIN- UING	CONTIN- UING	CONTIN- UING
PARAMETER	WATER % RSD	%D	%D	%D	%D	%D
VOLATILE ORGANIC COMPOUNDS						
acetone	41.8	-	-	-	-	-
QUALIFICATION	J (+)	-	-	-	-	-
SAMPLES AFFECTED						
acetone	None	-	-	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY				
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG No WA 023	INITIAL 2/28/94	CONTIN-UING 4/12/94 9:34	CONTIN-UING 4/14/94 15:31	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS				
3-nitroaniline	39.1	-	-	-
4-methylphenol	-	25.2	-	-
3-nitroaniline	-	43.4	-	-
4-nitroaniline	-	27.3	-	-
3,3'-dichlorobenzidine	-	31.2	-	-
n-nitrosodiphenylamine	-	-	38.0	-
QUALIFICATION	J (+)	J (+)	-	-
SAMPLES AFFECTED	None	None	-	-

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA024	INITIAL 5/11/94	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
acetone	83.6*	-	-	-	-	-
carbon disulfide	30.7	-	-	-	-	-
2-butanone	104	-	-	-	-	-
2-hexanone	41.1	-	-	-	-	-
QUALIFICATION	J (+)* / UJ (-)	-	-	-	-	-
SAMPLES AFFECTED	CF3MW34SR	-	-	-	-	-
	CF3MW34D	-	-	-	-	-
	CF3MW35D	-	-	-	-	-
	CF3MW34ST	-	-	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA024	INITIAL	CONTIN-UING 5/13/94 08:11	CONTIN-UING 5/16/94 07:49	CONTIN-UING 5/23/94 09:04	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
n-nitrosodiphenylamine	-	29.6	27.3	-	-	-
2-methylphenol	-	-	-	27.6	-	-
2-nitroaniline	-	-	-	27.1	-	-
4-nitroaniline	-	-	-	46.1	-	-
QUALIFICATION	-	J (+)	J (+)	J (+)	-	-
SAMPLES AFFECTED	-	None	None	None	-	-

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA024	INITIAL 5/10/94	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
PESTICIDE/PCB ORGANIC COMPOUNDS						
alpha-BHC	28.3	-	-	-	-	-
gamma-BHC	21.6	-	-	-	-	-
QUALIFICATION	J (+)	-	-	-	-	-
SAMPLES AFFECTED	None	-	-	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA034	INITIAL 10/07/94	CONTIN-UING 11/23/94 9:51	CONTIN-UING 11/29/94 11:25	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
chloroethane	-	51.8	58.8	-	-	-
acetone	45.4	61.5	-	-	-	-
1,2-dichloroethane	-	27.6	27.8	-	-	-
2-butanone	-	-	34.9	-	-	-
2-hexanone	-	-	26.4	-	-	-
QUALIFICATION	-	J (+)	J (+)	-	-	-
SAMPLES AFFECTED		None	CF3SS8	-	-	-

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA034	INITIAL 11/16/94	CONTIN-UING 11/21/94 11:27	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
acetone	-	36.2	-	-	-	-
QUALIFICATION	-	J (+)	-	-	-	-
SAMPLES AFFECTED	-	CF3SB6R Trip Blank	-	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA034	INITIAL 9/21/94	CONTIN-UING 11/28/94 10:39	CONTIN-UING 11/29/94 9:53	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
chloroethane	-	31.2	33.1	-	-	-
bromoform	-	-	-29.2	-	-	-
QUALIFICATION	-	J (+)	J (+)	-	-	-
SAMPLES AFFECTED	-	CF3SB5	None	-	-	-
	-	CF3SB6	-	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA034	INITIAL 11/10/94	CONTIN-UING 11/29/94 07:48	CONTIN-UING 11/29/94 20:41	CONTIN-UING 12/01/94 8:52	CONTIN-UING 12/06/94 8:53	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
bis(2-Chloroethyl)ether	-	-30.6	-	-	-	-
hexachlorobutadiene	-	-	-	25.1	-	-
2-nitroaniline	-	-	-	-31.9	-	-
4-nitrophenol	-	-	-29.7	-38.9	-	-
2,4-dinitrotoluene	-	-	-	-26.5	-	-
pentachlorophenol	-	-	-	-	25.8	-
di-n-butylphthalate	-	-30.7	-	-33.9	-	-
butylbenzylphthalate	-	-	-26.4	-44.0	-	-
3,3'-dichlorobenzidine	-	70.0	-	-48.7	-46.8	-
bis(2-ethylhexyl)phthalate	-	-	-28.7	-43.3	-	-
di-n-octylphthalate	-	-	-	-26.9	-	-
carbazole	-	-	-47.1	-46.2	-	-
QUALIFICATION	-	J (+)	J (+)	J (+)	J (+)	-
SAMPLES AFFECTED	-	None	CF3SB7	None	None	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA035	INITIAL 10/7/94	CONTIN-UING 11/23/94 09:51	CONTIN-UING 11/23/94 21:25	CONTIN-UING 11/25/94 10:38	CONTIN-UING 11/28/94 21:01	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
chloroethane	-	51.8	46.2	-	37.0	-
acetone	45.4	61.5	73.0	78.1	68.7	-
carbon disulfide	-	-	25.8	-	30.1	-
2-butanone	-	-	60.1	39.1	40.8	-
2-hexanone	-	-	30.2	-	29.3	-
1,2-dichloroethene (total)	-	105	-	-	-	-
1,2-dichloroethane	-	27.6	-	29.3	-	-
QUALIFICATION	J (+)	J (+)	J (+)	J (+)	J (+)	-
SAMPLES AFFECTED	None	None	None	CF3SB12	None	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA035	INITIAL	CONTIN-UING 11/29/94 20:41	CONTIN-UING 11/30/94 10:57	CONTIN-UING 12/1/94 08:52	CONTIN-UING 12/5/94 12:30	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
4-nitrophenol	-	29.7	27.1	38.9	-	-
butylbenzylphthalate	-	26.4	26.1	44.0	-	-
bis(2-ethylhexyl)phthalate	-	28.7	29.9	43.3	-	-
carbazole	-	47.1	32.9	46.2	32.3	-
phenol	-	-	25.4	-	-	-
3,3'-dichlorobenzidine	-	-	40.8	48.7	65.3	-
2-nitroaniline	-	-	-	31.9	-	-
2,4-dinitrotoluene	-	-	-	26.5	-	-
di-n-butylphthalate	-	-	-	33.9	-	-
di-n-octylphthalate	-	-	-	26.9	-	-
QUALIFICATION	-	J (+)	J (+)	J (+)	J (+)	-
SAMPLES AFFECTED	-	None	CF3SS19	None	None	-

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA035	INITIAL 12/15/94	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
PESTICIDE/PCB ORGANIC COMPOUNDS						
alpha-BHC	21.4	-	-	-	-	-
delta-BHC	21.8	-	-	-	-	-
QUALIFICATION	J (+)	-	-	-	-	-
SAMPLES AFFECTED	None	-	-	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY					
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG No WA 036	INITIAL 10/07/94	CONTIN-UING 11/26/94	CONTIN-UING 11/27/94	CONTIN-UING 11/28/94	CONTIN-UING 11/30/94
PARAMETER	SOIL % RSD	SOIL %D	SOIL %D	SOIL %D	SOIL %D
VOLATILE ORGANIC COMPOUNDS					
chloroethane	-	45.5	-	37.0	61.2
acetone	45.4	28.6	63.4	68.7	61.2
carbon disulfide	-	71.0	-	30.1	30.9
2-butanone	-	25.9	51.2	40.8	34.4
2-hexanone	-	46.3	-	29.3	-
1,2-dichloroethane	-	-	-	-	30.6
carbon tetrachloride	-	-	-	-	29.4
QUALIFICATION	J (+-)	J (+) acetone: J(+) & UJ (-)	J (+)	J (+)	J (+)
SAMPLES AFFECTED					
chloroethane	-	None	-	None	None
acetone	-	CF3SB28 CF3SB29 CF3SB31 CF3SB32 CF3SB32D CF3SS1 CF3SB1 CF3SD1 CF3SD2 CF3SD1D	-	CF3SS1R CF3SS1RT	None
carbon disulfide	None	None	None	None	None
2-butanone	None	None	None	None	None
2-hexanone	None	None	None	None	None

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY				
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG No WA 036	INITIAL 12/1/94	CONTIN-UING 12/5/94	CONTIN-UING 12/6/94	CONTIN-UING 12/9/94
PARAMETER	% RSD	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS				
hexachlorobutadiene	25.1	-	-	-
2-nitroaniline	31.9	-	-	-
4-nitrophenol	38.9	-	-	31.2
2,4-dinitrotoluene	26.5	-	-	-
di-n-butylphthalate	33.9	-	-	-
butylbenzylphthalate	44.0	-	-	-
3,3'-dichlorobenzidine	48.7	65.3	46.8	55.4
bis(2-ethylhexyl)phthalate	43.3	-	-	-
di-n-octylphthalate	26.9	-	-	-
carbazole	46.2	32.3	-	41.7
pentachlorophenol			25.8	-
QUALIFICATION	J(+)	J(+)	J(+)	J(+)
SAMPLES AFFECTED	None	None	None	None

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA037	**INITIAL** 10/7/94	**CONTIN-UING** 11/30/94 09:34	**CONTIN-UING** 12/2/94 09:34	**CONTIN-UING**	**CONTIN-UING**	**CONTIN-UING**
PARAMETER	**% RSD**	**% D**	**% D**	**% D**	**% D**	**% D**
VOLATILE ORGANIC COMPOUNDS						
acetone	44.8	36.2	53.7	-	-	-
1,1,2,2-tetrachloroethane	32.1	-	-	-	-	-
2-butanone	-	40.1	37.6	-	-	-
bromoform	-	29.0	-	-	-	-
2-hexanone	-	-	26.1	-	-	-
QUALIFICATION	J (+)	J (+)	J (+)	-	-	-
SAMPLES AFFECTED	None	None	None	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA037	INITIAL	CONTIN-UING 12/6/94 08:53	CONTIN-UING 12/9/94 16:37	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
pentachlorophenol	-	25.8	-	-	-	-
3,3'-dichlorobenzidine	-	46.8	55.4	-	-	-
4-nitrophenol	-	-	31.2	-	-	-
carbazole	-	-	41.7	-	-	-
QUALIFICATION	-	J (+)	J (+)	-	-	-
SAMPLES AFFECTED	-	None	None	-	-	-

Table 5
ORGANICS AND INORGANICS LABORATORY AND FIELD BLANK SUMMARY
OPERABLE UNIT 8
NAS CECIL FIELD JACKSONVILLE, FLORIDA

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA020			VOLATILE ORGANICS						
	4 ug/L	CF3MW9I CF3MW20S CF30F	acetone	Trip CF3MW17DT	ug/L	3 4 3	- - -	3 4 3	U U U
WA020			SEMIVOLATILE ORGANICS						
	0.5 ug/L	CF3SCRE	di-n-butylphthalate	SBLK4	ug/L	2	JB	10	U
WA020			PESTICIDE/PCB'S						
			(All criteria were met)			-	-	-	-

J = Estimated (Laboratory Flag)
B = Detected in Blank (Laboratory Flag)
U = Undetected (Data Validation Flag)
VBLK = Volatile Organics method Blank
SBLK = Semivolatile Organics Method Blank
PBLK = Pesticide/PCB Method Blank
EB = Equipment Blank
PBW = Water Preparation Blank
PBS = Soil Preparation Blank
TB = Trip Blank

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA020	98.2	CF3MW8SF	aluminum	CCB6	ug/L	205	-	205	U
	ug/L	CF3MW9IF				66.6	B	66.6	U
		CF3MW10D				49.0	B	49.0	U
		CF3MW10DF				44.1	B	44.1	U
		CF3MW11I				42.9	B	42.9	U
		CF3MW11IF				21.9	B	21.9	U
		CF3MW12D				32.7	B	32.7	U
		CF3MW12DF				22.6	B	22.6	U
		CF3MW17D				60.3	B	60.3	U
		CF3MW17DF				40.5	B	40.5	U
		CF3MW17DD				66.6	B	66.6	U
		CF3MW17DDF				31.1	B	31.1	U
		CF3MW20S				106	B	106	U
		CF3MW20SF				26.5	B	26.5	U
		CF3MW21I				33.2	B	33.2	U
		CF3MW21IF				25.8	B	25.8	U
		CF3MW22D				21.5	B	21.5	U
		CF3MW22DF				30.5	B	30.5	U
		CF3SC				28.7	B	28.7	U
	97.6	CF30F	calcium	CCB6	ug/L	97.2	B	97.2	U
	ug/L	CF30FF				34.2	B	34.2	U
	7.60	CF3MW8S	chromium	CCB1	ug/L	12.0	-	12.0	U
	ug/L								
	10.4	CF3MW8S	copper	CCB6	ug/L	6.6	B	6.6	U
	ug/L	CF3MW16S				8.8	B	8.8	U
		CF3MW17D				3.4	B	3.4	U
		CF3MW17DD				3.3	B	3.3	U
		CF3MW21I				5.0	B	5.0	U
		CF3MW21IF				6.0	B	6.0	U
		CF3MW22DF				7.7	B	7.7	U
		CF3SC				3.8	B	3.8	U
		CF3SCF				24.4	B	24.4	U
	99.2	CF3MW9I	magnesium	CCB6	ug/L	453	B	453	U
	ug/L	CF3MW9IF				320	B	320	U
		CF30F				25.0	B	25.0	U
		CF30FF				19.5	B	19.5	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA020	38.6 ug/L	CF3MW8SF	iron	CCB6	ug/L	155	-	155	U
		CF3MW10D				97.2	B	97.2	U
		CF3MW10DF				71.9	B	71.9	U
		CF3MW11I				30.7	B	30.7	U
		CF3MW11IF				14.2	B	14.2	U
		CF3MW12D				95.7	B	95.7	U
		CF3MW12DF				84.0	B	84.0	U
		CF3MW16S				16.9	B	16.9	U
		CF3MW16SF				9.0	U	9.0	U
		CF3MW17D				116	-	116	U
		CF3MW17DF				101	-	101	U
		CF3MW17DD				133	-	133	U
		CF3MW17DDF				112	-	112	U
		CF3MW20SF				42.2	B	42.2	U
		CF3MW21I				9.0	U	9.0	U
		CF3MW21IF				9.0	U	9.0	U
		CF3MW22D				11.1	B	11.1	U
		CF3MW22DF				27.8	B	27.8	U
		CF30F				9.0	U	9.0	U
		CF30FF				9.0	U	9.0	U
		CF3SC				17.3	B	17.3	U
		CF3SCF				9.0	U	9.0	U
	4.8 ug/L	CF3MW8S	manganese	CCB4	ug/L	10.7	B	10.7	U
		CF3MW8SF				4.9	B	4.9	U
		CF3MW9I				4.9	B	4.9	U
		CF3MW9IF				3.1	B	3.1	U
		CF3MW11I				10.9	B	10.9	U
		CF3MW11IF				11.6	B	11.6	U
		CF3MW12D				10.9	B	10.9	U
		CF3MW12DF				11.0	B	11.0	U
		CF3MW20S				9.2	B	9.2	U
		CF3MW20SF				7.7	B	7.7	U
		CF3MW21I				7.6	B	7.2	U
		CF3MW21IF				6.8	B	6.8	U
		CF3MW22D				6.0	B	6.0	U
		CF3MW22DF				7.6	B	7.6	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA020	-1.5 ug/L	CF3MW8S	lead	CCB9	ug/L	6.3	-	6.3	J
		CF3MW8SF				1.0	U	1.0	U
		CF3MW9I				1.0	U	1.0	U
		CF3MW9IF				1.0	U	1.0	U
		CF3MW10D				1.0	U	1.0	U
		CF3MW10DF				1.0	U	1.0	U
		CF3MW11I				1.0	U	1.0	U
		CF3MW11IF				1.0	U	1.0	U
		CF3MW12D				1.0	U	1.0	U
		CF3MW12DF				1.0	U	1.0	U
		CF3MW16S				3.0	U	3.0	J
		CF3MW16SF				1.8	B	1.8	J
		CF3MW17D				1.0	U	1.0	U
		CF3MW17DF				1.0	U	1.0	U
		CF3MW17DD				1.0	U	1.0	U
		CF3MW17DDF				1.0	U	1.0	U
		CF3MW20S				1.0	U	1.0	U
		CF3MW20SF				1.0	U	1.0	U
		CF3MW21I				1.0	U	1.0	U
		CF3MW21IF				1.0	U	1.0	U
		CF3MW22D				1.0	U	1.0	U
		CF3MW22DF				1.0	U	1.0	U
		CF30F				1.0	U	1.0	U
		CF30FF				3.1	-	3.1	J
		CF3SC				1.3	B	1.3	J
		CF3SCF							
	35.9 ug/L	CF3MW8S	nickel	CCB6	ug/L	19.0	B	19.0	U
		CF3MW8SF				15.5	B	15.5	U
		CF3MW9I				23.0	B	23.0	U
		CF3MW91F				13.0	B	13.0	U
		CF3MW11I				12.6	B	12.6	U
		CF3MW11IF				12.6	B	12.6	U
		CF3MW16S				16.4	B	16.4	U
		CF3MW16SF				18.3	B	18.3	U
		CF3MW17D				14.7	B	14.7	U
		CF3MW17DD				15.0	B	15.0	U
		CF3MW17DDF				20.4	B	20.4	U
		CF3MW20S				14.9	B	14.9	U
		CF30FF				67.5	B	67.5	U
		CF3SC				15.5	B	15.5	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA020	110 ug/L	CF3MW8S	potassium	CCB6	ug/L	320	B	320	U
		CF3MW9I				343	B	343	U
		CF3MW9IF				214	B	214	U
	183 ug/L	CF30F	sodium	Rinsate CF3MW 9IR	ug/L	91.5	B	91.5	U
		CF30FF				67.5	B	67.5	U
	-1.0 ug/L	CF3MW8S	thallium	CCB4	ug/L	1.0	U	1.0	UJ
		CF3MW8SF				1.0	U	1.0	UJ
		CF3MW9I				1.0	U	1.0	UJ
		CF3MW9IF				1.0	U	1.0	UJ
		CF3MW10D				1.0	U	1.0	UJ
		CF3MW10DF				1.0	U	1.0	UJ
		CF3MW11I				1.0	U	1.0	UJ
		CF3MW11IF				1.0	U	1.0	UJ
		CF3MW12D				1.0	U	1.0	UJ
		CF3MW12DF				1.0	U	1.0	UJ
		CF3MW16S				1.0	U	1.0	UJ
		CF3MW16SF				1.0	U	1.0	UJ
		CF3MW17D				1.0	U	1.0	UJ
		CF3MW17DF				1.0	U	1.0	UJ
		CF3MW17DD				1.0	U	1.0	UJ
		CF3MW17DDF				1.0	U	1.0	UJ
		CF3MW20S				1.0	U	1.0	UJ
		CF3MW20SF				1.0	U	1.0	UJ
		CF3MW21I				1.0	U	1.0	UJ
		CF3MW21IF				1.0	U	1.0	UJ
		CF3MW22D				1.0	U	1.0	UJ
		CF3MW22DF				1.0	U	1.0	UJ
		CF30F				1.0	U	1.0	UJ
		CF30FF				1.0	U	1.0	UJ
		CF3SC				1.0	U	1.0	UJ
		CFCSCF				1.0	U	1.0	UJ

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA020	20.2 ug/L	CF3MW8S	vanadium	CCB6	ug/L	6.3	B	6.3	U
		CF3MW16S				5.5	B	5.5	U
	7.9 ug/L	CF3MW8S	zinc	Rinsate CF3MW 9IR	ug/L	20.1	-	20.1	U
		CF3MW8SF				4.4	B	4.4	U
		CF3MW9I				11.6	B	11.6	U
		CF3MW9IF				12.9	B	12.9	U
		CF3MW10D				14.9	B	14.9	U
		CF3MW10DF				18.1	B	18.1	U
		CF3MW11I				3.2	B	3.2	U
		CF3MW11IF				36.5	-	36.5	U
		CF3MW12D				3.8	B	3.8	U
		CF3MW12DF				7.5	B	7.5	U
		CF3MW16SF				34.5	-	34.5	U
		CF3MW17D				8.3	B	8.3	U
		CF3MW17DF				3.4	B	3.4	U
		CF3MW17DD				14.7	B	14.7	U
		CF3MW17DDF				5.0	B	5.0	U
		CF3MW20S				8.4	B	8.4	U
		CF3MW20SF				6.6	B	6.6	U
		CF3MW21I				4.4	B	4.4	U
		CF3MW21IF				3.9	B	3.9	U
		CF3MW22D				4.1	B	4.1	U
		CF3MW22DF				6.2	B	6.2	U
		CF30F				2.0	B	2.0	U
		CF30FF				4.8	B	4.8	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA021	14.6 ug/L	CF3MW29DF	cobalt	PBW1	ug/L	9.3	B	9.3	U
		CF3MW30DDF				10.8	B	10.8	U
	3.2 ug/L	CF3MW30DDF	copper	PBW1	ug/L	4.7	B	4.7	U
	82.7 ug/L	CF3MW24D	iron	CCB1	ug/L	34.1	B	34.1	U
		CF3MW24DF				32.2	B	32.2	U
		CF3MW24DD				45.0	B	45.0	U
		CF3MW24DDF				42.9	B	42.9	U
		CF3MW29D				35.7	B	35.7	U
		CF3MW29DF				33.2	B	33.2	U
		CF3MW30DDF				37.2	B	37.2	U
	-1.2 ug/L	CF3MW24D	lead	PBW1	ug/L	1.0	U	1.0	U
		CF3MW24DF				1.0	U	1.0	U
		CF3MW24DD				1.0	U	1.0	U
		CF3MW24DDF				1.0	U	1.0	U
		CF3MW29D				1.0	U	1.0	U
		CF3MW29DF				1.0	U	1.0	U
		CF3MW30DD				1.0	U	1.0	U
		CF3MW30DDF				1.0	U	1.0	U
	-3.3 ug/L	CF3MW24D	thallium	CCB9	ug/L	1.0	U	1.0	U
		CF3MW24DF				1.0	U	1.0	U
		CF3MW24DD				1.0	U	1.0	U
		CF3MW24DDF				1.0	U	1.0	U
		CF3MW29D				1.0	U	1.0	U
		CF3MW29DF				1.0	U	1.0	U
		CF3MW30DD				1.0	U	1.0	U
		CF3MW30DDF				1.0	U	1.0	U
	3.2 ug/L	CF3MW24DF	zinc	CCB4	ug/L	2.6	B	2.6	U
		CF3MW24DDF				5.2	B	5.2	U
		CF3MW29DF				5.8	B	5.8	U
		CF3MW30DD				2.7	B	2.7	U
		CF3MW30DDF				6.0	B	6.0	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA022			VOLATILE ORGANICS						
	13 ug/L	CF3MW1	acetone	Trip CF3MW4ST	ug/L	2	B	2	U
		CF3MW3S				30	-	30	U
		CF3MW3SD				24	-	24	U
		CF3MW4S				60	B	60	U
		CF3MW5S				11	-	11	U
		CF3MW6S				71	-	71	U
		CF3MW7D				4	-	4	U
		CF3MW7DD				8	-	8	U
		CF3MW18S				3	-	2	U
		CF3MW27D				10	-	10	U
		CF3MW30DD				5	-	5	U
	2 ug/L	CF3MW3S	1,1,1-trichloroethane	Trip CF3MW30DT	ug/L	3	-	3	U
		CF3MW3SD				4	-	4	U
			SEMIVOLATILE ORGANICS						
			(All criteria were met)			-	-	-	-
			PESTICIDE/PCB'S						
	0.018 ug/L	CF3MW7S	heptachlor	Trip CF3MW7DDR	ug/L	0.013	JP	0.05	UJ

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA022	52.3 ug/L	CF3MW1	aluminum	RINS2	ug/L	102	B	102	U
		CF3MW1F				92.9	B	92.9	U
		CF3MW3SF				81.7	B	81.7	U
		CF3MW3SDF				126	B	126	U
		CF3MW4S				85.8	B	85.8	U
		CF3MW4SF				29.4	B	29.4	U
		CF3MW5SF				180	B	180	U
		CF3MW6S				85.2	B	85.2	U
		CF3MW6SF				54.7	B	54.7	U
		CF3MW7DF				57.0	B	57.0	U
		CF3MW7DDF				71.6	B	71.6	U
		CF3MW7S				129	B	129	U
		CF3MW7SF				119	B	119	U
		CF3MW19D				32.9	B	32.9	U
		CF3MW33DD				49.5	B	49.5	U
		CF3MW33DDF				38.9	B	38.7	U
	3.6 ug/L	CF3MW6S	cadmium	CCB3	ug/L	3.3	B	3.3	U
	634 ug/L	CF3MW1	calcium	RINS3	ug/L	185	B	185	U
		CF3MW1F				108	B	108	U
	48.1 ug/L	CF3MW1	iron	RINS1	ug/L	201	-	201	U
		CF3MW7DF				139	-	139	U
		CF3MW7DDF				40.5	B	40.5	U
		CF3MW18SF				102	-	102	U
		CF3MW19D				102	-	102	U
		CF3MW19DF				89.3	B	89.3	U
		CF3MW27D				30.0	B	30.0	U
		CF3MW27DF				18.5	B	18.5	U
		CF3MW33DD				35.9	B	35.9	U
		CF3MW33DDF				18.0	B	18.0	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA022	6.4	CF3MW1	chromium	CCB6	ug/L	5.0	U	5.0	UJ
	ug/L	CF3MW1F				5.3	B	5.3	UJ
	-6.6	CF3MW3SF		CCB5	ug/L	5.0	U	5.0	UJ
	ug/L	CF3MW3SD				5.0	U	5.0	UJ
		CF3MW3SDF				5.0	U	5.0	UJ
		CF3MW4S				5.0	U	5.0	UJ
		CF3MW4SF				5.0	U	5.0	UJ
		CF3MW5S				5.0	U	5.0	UJ
		CF3MW5SF				5.0	U	5.0	UJ
		CF3MW6S				5.0	U	5.0	UJ
		CF3MW6SF				5.0	U	5.0	UJ
		CF3MW7D				5.0	U	5.0	UJ
		CF3MW7DF				5.0	U	5.0	UJ
		CF3MW7DD				5.0	U	5.0	UJ
		CF3MW7DDF				5.0	U	5.0	UJ
		CF3MW7S				5.0	U	5.0	UJ
		CF3MW7SF				5.0	U	5.0	UJ
		CF3MW18S				5.0	U	5.0	UJ
		CF3MW18SF				5.0	U	5.0	UJ
		CF3MW19D				5.0	U	5.0	UJ
		CF3MW19DF				5.0	U	5.0	UJ
		CF3MW27D				5.0	U	5.0	UJ
		CF3MW27DF				5.0	U	5.0	UJ
		CF3MW33DD				5.0	U	5.0	UJ
		CF3MW33DDF				5.0	U	5.0	UJ
	-4.1	CF3MW1	copper	CCB4	ug/L	3.0	U	3.0	UJ
	ug/L	CF3MW1F				3.0	U	3.0	UJ
		CF3MW3S				3.0	U	3.0	UJ
		CF3MW3SF				3.0	U	3.0	UJ
		CF3MW3SD				3.0	U	3.0	UJ
		CF3MW3SDF				3.0	U	3.0	UJ
		CF3MW4SF				3.0	U	3.0	UJ
		CF3MW5S				3.0	U	3.0	UJ
		CF3MW5SF				3.0	U	3.0	UJ
		CF3MW6S				3.0	U	3.0	UJ
		CF3MW6SF				3.0	U	3.0	UJ
		CF3MW7D				3.0	U	3.0	UJ
		CF3MW7DF				3.0	U	3.0	UJ
		CF3MW7DD				3.0	U	3.0	UJ
		CF3MW7DDF				3.0	U	3.0	UJ
		CF3MW7S				3.0	U	3.0	UJ

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA022	-4.1 ug/L	CF3MW7SF	copper	CCB4	ug/L	3.0	U	3.0	U
		CF3MW18S				3.0	U	3.0	U
		CF3MW18SF				3.0	U	3.0	U
		CF3MW19D				3.0	U	3.0	U
		CF3MW19DF				3.0	U	3.0	U
		CF3MW27D				3.0	U	3.0	U
		CF3MW27DF				3.0	U	3.0	U
		CF3MW33DD				3.0	U	3.0	U
		CF3MW33DDF				3.0	U	3.0	U
	94.4 ug/L	CF3MW1	potassium	CCB4	ug/L	119	B	119	U
		CF3MW7DF				252	B	252	U
	-4.2 ug/L	CF3MW1	silver	CCB5	ug/L	3.0	U	3.0	U
		CF3MW1F				3.0	U	3.0	U
		CF3MW3S				3.0	U	3.0	U
		CF3MW3SF				3.0	U	3.0	U
		CF3MW3SD				3.0	U	3.0	U
		CF3MW3SDF				3.0	U	3.0	U
		CF3MW4S				3.0	U	3.0	U
		CF3MW4SF				3.0	U	3.0	U
		CF3MW5S				3.0	U	3.0	U
		CF3MW5SF				3.0	U	3.0	U
		CF3MW6S				3.0	U	3.0	U
		CF3MW6SF				3.0	U	3.0	U
		CF3MW7D				3.0	U	3.0	U
		CF3MW7DF				3.0	U	3.0	U
		CF3MW7DD				3.0	U	3.0	U
		CF3MW7DDF				3.0	U	3.0	U
		CF3MW7S				3.0	U	3.0	U
		CF3MW7SF				3.0	U	3.0	U
		CF3MW18S				3.0	U	3.0	U
		CF3MW18SF				3.0	U	3.0	U
		CF3MW19D				3.0	U	3.0	U
		CF3MW19DF				3.0	U	3.0	U
		CF3MW27D				3.0	U	3.0	U
		CF3MW27DF				3.0	U	3.0	U
		CF3MW33DD				3.0	U	3.0	U
		CF3MW33DDF				3.0	U	3.0	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA022	-7.5 ug/L	CF3MW1	vanadium	CCB5	ug/L	5.0	U	5.0	U
		CF3MW1F				5.0	U	5.0	U
		CF3MW3S				5.0	U	5.0	U
		CF3MW3SF				5.0	U	5.0	U
		CF3MW3SD				5.0	U	5.0	U
		CF3MW3SDF				5.0	U	5.0	U
		CF3MW4S				5.0	U	5.0	U
		CF3MW4SF				5.0	U	5.0	U
		CF3MW5S				5.0	U	5.0	U
		CF3MW5SF				5.0	U	5.0	U
		CF3MW6S				5.0	U	5.0	U
		CF3MW6SF				5.0	U	5.0	U
		CF3MW7D				5.0	U	5.0	U
		CF3MW7DF				5.0	U	5.0	U
		CF3MW7DD				5.0	U	5.0	U
		CF3MW7DDF				5.0	U	5.0	U
		CF3MW7S				5.0	U	5.0	U
		CF3MW7SF				5.0	U	5.0	U
		CF3MW18S				5.0	U	5.0	U
		CF3MW18SF				5.0	U	5.0	U
		CF3MW19D				5.0	U	5.0	U
		CF3MW19DF				5.0	U	5.0	U
		CF3MW27D				5.0	U	5.0	U
		CF3MW27DF				5.0	U	5.0	U
		CF3MW33DD				5.0	U	5.0	U
		CF3MW33DDF				5.0	U	5.0	U
	26.2 ug/L	CF3MW1	zinc	RINS3	ug/L	4.6	B	4.6	U
		CF3MW1F				5.4	B	5.4	U
		CF3MW3S				53.9	-	53.9	U
		CF3MW3SF				10.9	B	10.9	U
		CF3MW3SD				21.3	-	21.3	U
		CF3MW3SDF				8.6	B	8.6	U
		CF3MW4S				25.8	-	25.8	U
		CF3MW4SF				28.6	-	28.6	U
		CF3MW5S				13.0	B	13.0	U
		CF3MW5SF				25.9	-	25.9	U
		CF3MW6S				5.6	B	5.6	U
		CF3MW6SF				10.4	B	10.4	U
		CF3MW7D				58.3	-	58.3	U
		CF3MW7DF				58.1	-	58.1	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA022	26.2 ug/L	CF3MW7DD	zinc	RINS3	ug/L	41.8	B	41.8	U
		CF3MW7DDF				38.2	B	38.2	U
		CF3MW7S				7.7	B	7.7	U
		CF3MW7SF				11.0	B	11.0	U
		CF3MW18S				13.1	B	13.1	U
		CF3MW18SF				14.0	B	14.0	U
		CF3MW19D				6.9	B	6.9	U
		CF3MW19DF				3.8	B	3.8	U
		CF3MW27D				7.8	B	7.8	U
		CF3MW27DF				17.0	B	17.0	U
		CF3MW33DD				12.1	B	12.1	U
		CF3MW33DF				14.2	B	14.2	U

CCB=Contiuming Calibration Blank, RINS1=Rinsate Blank (CF3MW6SR),
RINS2=Rinsate Blank (CF3MW6SRF), RINS3=Rinsate Blank (CF3MW7DDR)

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA023			VOLATILE ORGANICS						
	8 ug/L	CF3MW13S	acetone	EB	ug/L	550	B	550	U
		CF3MW14I			ug/L	27	B	27	U
		CF3MW15D			ug/L	5	B	5	U
		CF3MW25S			ug/L	2	B	2	U
		CF3MW26I			ug/L	2	B	2	U
		CF3MW26ID			ug/L	2	B	2	U
		CF3MW31S			ug/L	6	B	6	U
		CF3MW32D			ug/L	6	B	6	U
		CF3MW23S			ug/L	16	B	16	U
		CF3MW28S			ug/L	210	B	210	U
			SEMIVOLATILE ORGANICS						
			None		-	-	-	-	-
			PESTICIDE/PCB'S						
			None		-	-	-	-	-

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA023	50.3 (ug/L)	CF3MW14I	aluminum	EB	ug/L	37.4	B	37.4	U
		CF3MW15D			ug/L	48.1	B	48.1	U
		CF3MW15D F			ug/L	60.0	B	60.0	U
		CF3MW25S			ug/L	221	B	221	U
		CF3MW25S F			ug/L	207	B	207	U
		CF3MW26I F			ug/L	130	B	130	U
		CF3MW26ID F			ug/L	88.2	B	88.2	U
		CF3MW28S F			ug/L	156	B	156	U
		CF3MW32D			ug/L	54.4	B	54.4	U
		CF3MW32D F			ug/L	109	B	109	U
		CF3MW31S			ug/L	44.3	B	44.3	U
		CF3MW31S F			ug/L	37.4	B	37.4	U
		CF3MW23S F			ug/L	48.0	B	48.0	U
	241.3 (ug/L)	CF3MW25S	calcium	ICB(P1)	ug/L	419	B	419	U
		CF3MW25S F			ug/L	348	B	348	U
		CF3MW26I F			ug/L	830	B	830	U
		CF3MW26ID F			ug/L	856	B	856	U
		CF3MW28S F			ug/L	800	B	800	U
		CF3MW23S			ug/L	644	B	644	U
	-7.4 (ug/L)	CF3MW13S	chromium	CCB(P1)	ug/L	5.0	U	5.0	U
		CF3MW13S F			ug/L	5.0	U	5.0	U
		CF3MW14I			ug/L	5.0	U	5.0	U
		CF3MW14I F			ug/L	5.0	U	5.0	U
		CF3MW15D			ug/L	5.0	U	5.0	U
		CF3MW15D F			ug/L	5.0	U	5.0	U
		CF3MW25S			ug/L	5.0	U	5.0	U
		CF3MW25S F			ug/L	5.0	U	5.0	U
		CF3MW26I			ug/L	24.6	B	24.6	U
		CF3MW26I F			ug/L	5.0	U	5.0	U
		CF3MW26ID			ug/L	11.9	B	11.9	U
		CF3MW26ID F			ug/L	5.0	U	5.0	U
		CF3MW28S			ug/L	5.0	U	5.0	U
		CF3MW28S F			ug/L	5.0	U	5.0	U
		CF3MW32D			ug/L	5.0	U	5.0	U
		CF3MW32D F			ug/L	5.0	U	5.0	U
		CF3MW31S			ug/L	5.0	U	5.0	U
		CF3MW31S F			ug/L	5.0	U	5.0	U
		CF3MW23S			ug/L	5.0	U	5.0	U
		CF3MW23S F			ug/L	5.0	U	5.0	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA023	47.8 (ug/L)	CF3MW15D F	iron	EB	ug/L	155	B	155	U
		CF3MW25S			ug/L	62.6	B	62.6	U
		CF3MW25S F			ug/L	39.8	B	39.8	U
		CF3MW26I F			ug/L	129	B	129	U
		CF3MW26ID F			ug/L	127	B	127	U
		CF3MW32D			ug/L	44.6	B	44.6	U
		CF3MW32D F			ug/L	20.9	B	20.9	U
		CF3MW31S			ug/L	54.2	B	54.2	U
		CF3MW31S F			ug/L	53.1	B	53.1	U
	8.0 (ug/L)	CF3MW13S	zinc	CCB(P1)	ug/L	5.2	B	5.2	U
		CF3MW13S F			ug/L	15.0	B	15.0	U
		CF3MW14I			ug/L	2.1	B	2.1	U
		CF3MW14I F			ug/L	38.5	-	38.5	U
		CF3MW15D			ug/L	8.9	B	8.9	U
		CF3MW15D F			ug/L	2.9	B	2.9	U
		CF3MW25S			ug/L	6.8	B	6.8	U
		CF3MW25S F			ug/L	2.4	B	2.4	U
		CF3MW26I			ug/L	24.9	-	24.9	U
		CF3MW26ID			ug/L	19.8	B	19.8	U
		CF3MW28S			ug/L	10.1	B	10.1	U
		CF3MW28S F			ug/L	24.5	-	24.5	U
		CF3MW31S			ug/L	3.3	B	3.3	U
		CF3MW23S			ug/L	8.1	B	8.1	U
		CF3MW23S F			ug/L	3.3	B	3.3	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA024	19 ug/L	CF5MW7S	VOLATILE ORGANICS acetone	Rinsate CF3MW35SR	ug/L	5	-	5	U
			SEMIVOLATILE ORGANICS (No positve detections)			-	-	-	-
			PESTICIDE/PCB'S (No positive detections)			-	-	-	-

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA024	76.6 ug/L	CF3MW34S	aluminum	CCB4	ug/L	290	-	290	U
		CF3MW34SF				234	-	234	U
		CF3MW35D				43.7	B	43.7	U
		CF3MW35DF				47.9	B	47.9	U
	-3.43 ug/L	CF3MW34S	copper	PBW1	ug/L	1.0	U	1.0	U
		CF3MW34SF				1.0	U	1.0	U
		CF3MW35D				1.0	U	1.0	U
		CF3MW35DF				1.0	U	1.0	U
	7.77 ug/L	CF3MW34S	manganese	PBW1	ug/L	12.7	B	12.7	U
		CF3MW34SF				13.3	B	13.3	U
		CF3MW35D				7.6	B	7.6	U
		CF3MW35DF				7.6	B	7.6	U
	-1.1 ug/L	CF3MW34S	thallium	PBW1	ug/L	1.0	U	1.0	U
		CF3MW34SF				1.0	U	1.0	U
		CF3MW35D				1.0	U	1.0	U
		CF3MW35DF				1.0	U	1.0	U
	5.8 ug/L	CF3MW34S	zinc	CF3MW 34SF CCB1	ug/L	3.8	B	3.8	U
		CF3MW34SF				5.5	B	5.5	U
	-1.3 ug/L	CF3MW35D				5.5	B	5.5	U
		CF3MW35DF				2.4	B	2.4	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA034			VOLATILE ORGANICS						
	22 ug/L	CF3SS2	acetone	Trip Blank	ug/kg	10	JB	12	U
		CF3SB2				12	B	12	U
		CF3SS3				5	JB	12	U
		CF3SB3				9	JB	13	U
		CF3SS4				6	JB	12	U
		CF3SB4				8	JB	12	U
		CF3SS5				13	B	13	U
		CF3SS6				14	-	14	U
		CF3SB6R				17	-	17	U
			SEMIVOLATILE ORGANICS						
	31 ug/kg	CF3SS2	di-n-butylphthalate	SBLK2	ug/kg	180	JB	390	U
		CF3SB2				800	B	800	-
		CF3SS3				1400	B	1400	-
		CF3SS4				53	JB	400	U
		CF3SB4				150	JB	400	U
		CF3SS5				85	JB	390	U
		CF3SB5				76	JB	400	U
		CF3SS6				120	JB	410	U
		CF3SB6				94	JB	400	U
	31 ug/kg	CF3SS9	di-n-butylphthalate	SBLK3	ug/kg	56	JB	350	U
		CF3SB9				760	B	760	-
		CF3SS10				95	JB	380	U
		CF3SS10MS				92	JB	380	U
		CF3SS10MSD				63	JB	380	U
		CF3SS10D				67	JB	390	U
		CF3SS8				91	JB	480	U
		CF3SB8				51	JB	440	U
		CF3SS7				56	JB	410	U
		CF3SB7				160	JB	420	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA034			PESTICIDE/PCB'S						
	0.28	CF3SB2	dieldrin	PBLK2	ug/kg	0.29	JB	4.0	U
		CF3SB3				0.29	JPB	4.3	U
		CF3SS2				1.6	JPB	20	U
		CF3SS6				0.25	JB	4.1	U
	0.64	CF3SB2	4,4'-DDT			1.5	JB	4	U
		CF3SB3				0.59	JPB	4.3	U
		CF3SB4				0.82	JPB	4.0	U
		CF3SB5				1.1	JPB	4.0	U
		CF3SB6				1.1	JB	4.0	U
		CF3SS3				0.52	JPB	3.9	U
		CF3SS4				1.2	JB	4.0	U
		CF3SS5				1.4	JB	3.9	U
		CF3SS6				1.3	JPB	4.1	U
	0.84	CF3SB4	methoxychlor			1.0	JPB	4.0	U
		CF3SB5				1.0	JPB	4.0	U
		CF3SB6				1.1	JPB	4.0	U
	1.5	CF3SB7	dieldrin	PBLK3		5.7	B	5.7	U
		CF3SB8				1.7	JB	4.4	U
		CF3SB9				2.1	JB	4.3	U
		CF3SS10				1.6	JPB	3.8	U
		CF3SS10D				4.9	PB	4.9	U
		CF3SS7				0.58	JB	3.9	U
		CF3SS8				3.8	B	4.8	U
		CF3SS9				0.77	JB	4.1	U
		CF3SB7				30	B	30	U
		CF3SB8				9.3	B	9.3	U
	10	CF3SB9	4,4'-DDT			12	B	12	U
		CF3SS10				8.6	B	8.6	U
		CF3SS10D				29.0	B	29.0	U
		CF3SS7				3.8	JPB	3.9	U
		CF3SS8				19	B	19	U
		CF3SS9				3.5	JPB	4.1	U
		CF3SB7				30.0	B	30	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA034			PESTICIDE/PCB'S						
	0.60	CF3SB7RE	aldrin	PBLK4	ug/kg	0.47	JPB	2.2	U
		CF3SB9RE				0.88	JPB	2.2	U
		CF3SS10RE				0.77	JPB	2.0	U
		CF3SS7RE				0.61	JPB	2.0	U
		CF3SB8RE				0.57	JPB	2.3	U
		CF3SS9RE				0.74	JPB	2.1	U
	0.63	CF3SB8RE	dieldrin	PBLK4		0.16	JPB	4.4	U
		CF3SS8RE				0.14	JPB	4.8	U
		CF3SS9RE				0.29	JB	4.1	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA034	74.5	CF3SB6R	calcium	PBW	ug/L	71.1	B	1.1	U
		CF3SB6RF				52.4	B	52.4	U
		CF3SB6R	potassium	PBW	ug/L	22.5	B	22.5	U
		CF3SB6RF				21.7	B	21.7	U
		CF3SB6R	zinc	PBW	ug/L	6.5	B	6.5	U
		CF3SB6RF				10.3	B	10.3	U
	1.95	CF3SB7	chromium	PBS	ug/kg	0.76	B	0.76	U
		CF3SB8				0.96	B	0.96	U
		CF3SB9				1.1	B	1.1	U
		CF3SS10				1.0	B	1.0	U
		CF3SS10D				1.1	B	1.1	U
		CF3SS2				2.6	-	2.6	U
		CF3SS3				0.88	B	0.88	U
		CF3SS4				2.5	-	2.5	U
		CF3SS5				1.2	B	1.2	U
		CF3SS6				2.3	B	2.3	U
		CF3SS7				2.5	-	2.5	U
		CF3SS8				1.0	B	1.0	U
		CF3SS9				4.3	-	4.3	U
		CF3SS10D				1.1	B	1.1	U
		CF3SB6				1.2	B	1.2	U
		CF3SB2				1.2	B	1.2	U
		CF3SB3				1.5	B	1.5	U
		CF3SB4				2.3	B	2.3	U
		CF3SB5				1.3	B	1.3	U
	0.46	CF3SB7	lead	PBS	ug/kg	1.1	-	1.1	U
		CF3SB8				1.2	-	1.2	U
		CF3SB9				1.6	-	1.6	U
		CF3SS8				2.3	-	2.3	U
		CF3SB2				1.6	-	1.6	U
		CF3SB3				1.8	-	1.8	U
		CF3SB4				1.3	-	1.3	U
		CF3SB5				1.7	-	1.7	U
	0.57	CF3SB7	manganese			1.6	B	1.6	U
		CF3SB8				1.9	B	1.9	U
		CF3SB9				1.9	B	1.9	U
	2.17	CF3SB6	nickel			0.67	B	0.67	U
		CF3SB2				0.69	B	0.69	U
		CF3SB3				2.9	B	2.9	U
		CF3SB4				1.4	B	1.4	U
		CF3SB7				1.0	B	1.0	U
		CF3SB8				0.74	B	0.74	U
		CF3SB9				0.63	B	0.63	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA034	2.17	F3SS10D	nickel	PBS	ug/kg	0.81	B	0.81	U
		CF3SS2				1.1	B	1.1	U
		CF3SS3				0.67	B	0.67	U
		CF3SS4				1.5	B	1.5	U
		CF3SS5				0.62	B	0.62	U
		CF3SS7				1.5	B	1.5	U
		CF3SS8				0.74	B	0.74	U
		CF3SS9				1.4	B	1.4	U
	1.08	CF3SB6	zinc	PBS	ug/kg	2.4	B	2.4	U
		CF3SB2				2.4	B	2.4	U
		CF3SB3				3.8	B	3.8	U
		CF3SB4				2.5	B	2.5	U
		CF3SB5				2.1	B	2.1	U
		CF3SB7				2.8	B	2.8	U
		CF3SB9				3.8	B	3.8	U
		CF3SS10				4.3	B	4.3	U
		CF3SS10D				2.2	B	2.2	U
		CF3SS3				4.4	B	4.4	U
		CF3SS4				3.3	B	3.3	U
		CF3SS5				2.5	B	2.5	U
		CF3SS6				4.7	B	4.7	U
		CF3SS8				5.0	B	5.0	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA035			VOLATILE ORGANICS						
	8 ug/kg	CF3SB10	acetone	VBLK1	ug/kg	10	JB	12	U
	5 ug/kg	CF3SB11		VBLK2	ug/kg	21	B	21	U
		CF3SB13				26	B	26	U
		CF3SS11				10	JB	15	U
		CF3SS12				20	B	20	U
		CF3SS14				19	B	19	U
		CF3SS15				5	JB	13	U
		CF3SS16				3	JB	12	U
	14 ug/kg	CF3SB10D		VBLK3	ug/kg	7	JB	13	U
		CF3SB12				26	B	26	U
		CF3SS13				14	JB	16	U
		CF3SS18				3	JB	12	U
		CF3SS20				13	B	13	U
		CF3SS20D				19	B	19	U
		CF3SS21				10	JB	13	U
		CF3SS22				6	JB	13	U
		CF3SS23				3	JB	14	U
	3 ug/kg	CF3SB11	2-butanone	VBLK2	ug/kg	4	JB	7	U
		CF3SB13				5	JB	8	U
		CF3SS12				3	JB	7	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA035			SEMIVOLATILE ORGANICS						
			di-n-butylphthalate	SBLK1	ug/kg	340	JB	410	U
	530 ug/kg	CF3SB10				80	JB	430	U
		CF3SB10D				34	JB	460	U
		CF3SB11				52	JB	510	U
		CF3SB12				40	JB	480	U
		CF3SS11				54	JB	480	U
		CF3SS12				39	JB	440	U
		CF3SS15				53	JB	410	U
		CF3SS16				46	JB	400	U
		CF3SS17				82	JB	390	U
		CF3SS18				150	JB	390	U
		CF3SS20				110	JB	460	U
		CF3SS20D				75	JB	420	U
		CF3SS21				44	JB	420	U
		CF3SS22				41	JB	440	U
		CF3SS23		SBLK2	ug/kg	140	JB	540	U
	19 ug/kg	CF3SS24				31	JB	400	U
		CF3SS19							

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA035			PESTICIDES/PCB'S						
	0.088 ug/kg	CF3SS16	aldrin	PBLK2	ug/kg	0.24	JPB	2.1	U
		CF3SS17				0.23	JPB	2.1	U
		CF3SS18				0.13	JPB	2.0	U
		CF3SS19				0.22	JPB	2.1	U
		CF3SS20				0.17	JPB	2.0	U
		CF3SS20D				0.24	JPB	2.4	U
		CF3SS21				0.15	JPB	2.2	U
		CF3SS22				0.12	JPB	2.2	U
		CF3SS23				0.38	JPB	2.3	U
		CF3SS24				0.32	JPB	2.8	U
	1.2 ug/kg	CF3SB10	dieldrin	PBLK1	ug/kg	0.90	JB	4.1	U
	0.73 ug/kg	CF3SB13				0.14	JPB	5.0	U
		CF3SS16		PBLK2	ug/kg	1.3	JB	2.1	U
		CF3SS17				1.2	JB	4.0	U
		CF3SS18				0.85	JB	3.9	U
		CF3SS19				2.2	JB	4.0	U
		CF3SS20				0.81	JB	3.9	U
		CF3SS20D				0.73	JB	4.7	U
		CF3SS21				0.34	JB	4.2	U
		CF3SS23				0.29	JPB	4.5	U
	0.74 ug/kg	CF3SS24		PBLK3	ug/kg	0.32	JB	5.4	U
		CF3SB10RE				0.58	JB	5.1	U
		CF3SB10DRE				1.0	JB	4.4	U
		CF3SB11RE				1.8	JPB	4.6	U
		CF3SB12RE				0.63	JPB	5.2	U
		CF3SB13RE				0.85	JB	5.0	U
		CF3SS11RE				0.93	JB	4.8	U
		CF3SS13RE				0.57	JB	4.8	U
		CF3SS15RE				0.73	JB	4.4	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA035			PESTICIDES/PCB'S						
	12.0 ug/kg	CF3SB10	4,4'-DDT	PBLK1	ug/kg	0.78	JPB	4.1	U
		CF3SB10D				0.20	JPB	4.3	U
		CF3SB11				0.19	JPB	4.6	U
		CF3SB13				0.76	JB	5.0	U
		CF3SS11				0.72	JPB	4.8	U
		CF3SS12				0.72	JPB	4.8	U
		CF3SS14				1.2	JB	4.2	U
		CF3SS15				0.38	JPB	4.4	U
	0.12 ug/kg	CF3SS18		PBLK2	ug/kg	2.7	JPB	3.9	UJ
	5.1 ug/kg	CF3SB10RE		PBLK3	ug/kg	4.2	PB	4.2	U
		CF3SB10DRE				7.6	B	7.6	U
		CF3SB12RE				7.5	B	7.5	U
		CF3SB13RE				8.0	B	8.0	U
		CF3SS11RE				6.8	PB	6.8	U
		CF3SS12RE				6.2	B	6.2	U
		CF3SS13RE				5.1	B	5.1	U
		CF3SS14RE				3.9	JB	4.2	U
		CF3SS15RE				5.8	B	5.8	U
	5.1 ug/kg	CF3SB11	methoxychlor	PBLK1	ug/kg	1.3	JPB	24	U
		CF3SB12				0.79	JPB	26	U
		CF3SB13				1.5	JPB	26	U
		CF3SS11				1.6	JPB	25	U
		CF3SS12				0.82	JPB	25	U
		CF3SS13				2.7	JB	25	U
		CF3SS15				1.9	JPB	21	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA035			PESTICIDES/PCB'S						
	2.2 ug/kg	CF3SS16	methoxychlor	PBLK2	ug/kg	4.0	JB	21	U
		CF3SB17				3.0	JB	21	U
		CF3SS18				1.7	JB	20	U
		CF3SS19				2.5	JB	21	U
		CF3SS20				1.8	JPB	20	U
		CF3SS20D				1.2	JPB	24	U
		CF3SS21				2.1	JPB	22	U
		CF3SS22				2.1	JB	22	U
		CF3SS23				5.7	JPB	23	U
		CF3SS24				2.2	JPB	28	U
	3.9 ug/kg	CF3SB10RE		PBLK3	ug/kg	2.8	JB	21	U
		CF3SB10DRE				2.6	JB	22	U
		CF3SS11RE				2.3	JPB	25	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA035	38.11 mg/kg	CF3SB10D	calcium	PBS	mg/kg	182	B	182	U
	0.311 mg/kg	CF3SB10	lead	PBS	mg/kg	1.6	-	1.6	U
		CF3SB10D				1.3	-	1.3	U
	4.422 mg/kg	CF3SB10	potassium	PBS	mg/kg	14.2	B	14.2	U
		CF3SB10D				15.2	B	15.2	U
		CF3SB11				29.0	B	29.0	U
		CF3SB12				27.7	B	27.7	U
		CF3SB13				19,7	B	19.7	U
		CF3SS16				12.6	B	12.6	U
		CF3SS17				28.4	B	28.4	U
		CF3SS20				25.8	B	25.8	U
		CF3SS22				25.0	B	25.0	U
	86.7 mg/kg	CF3SB10	sodium	PBS	mg/kg	143	B	143	U
		CF3SB10D				136	B	136	U
		CF3SB11				208	B	208	U
		CF3SB12				235	B	235	U
		CF3SB13				182	B	182	U
		CF3SS11				191	B	191	U
		CF3SS12				229	B	229	U
		CF3SS13				238	B	238	U
		CF3SS14				170	B	170	U
		CF3SS15				203	B	203	U
		CF3SS16				79.9	B	79.9	U
		CF3SS17				166	B	166	U
		CF3SS18				157	B	157	U
		CF3SS19				180	B	180	U
		CF3SS20				184	B	184	U
		CF3SS20D				309	B	309	U
		CF3SS21				226	B	226	U
		CF3SS22				184	B	184	U
		CF3SS23				214	B	214	U
		CF3SS24				253	B	253	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA035	2.382 mg/kg	CF3SB10	zinc	PBS	mg/kg	3.4	B	3.4	U
		CF3SB10D				3.8	B	3.8	U
		CF3SB11				11.9	-	11.9	U
		CF3SB12				6.1	B	6.1	U
		CF3SB13				9.1	-	9.1	U
		CF3SS11				7.6	-	7.6	U
		CF3SS12				8.3	-	8.3	U
		CF3SS13				8.2	-	8.2	U
		CF3SS14				5.4	-	5.4	U
		CF3SS15				8.2	-	8.2	U
		CF3SS16				2.7	-	2.7	U
		CF3SS20				6.1	-	6.1	U
		CF3SS20D				16.4	-	16.4	U
		CF3SS21				13.8	-	13.8	U
		CF3SS22				5.8	-	5.8	U
		CF3SS23				8.6	-	8.6	U
		CF3SS24				10.8	-	10.8	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA036			VOLATILE ORGANICS					89	
	26ug/L	CF3SS24D	acetone	TB	ug/kg	23	J	12	U
	ug/L	CF3SB25			ug/kg	4	JB	66	U
		CF3SB26			ug/kg	49	J	13	U
		CF3SB27			ug/kg	6	J	12	U
		CF3SB27D			ug/kg	9	JB	13	U
		CF3SB28			ug/kg	5	J	12	U
		CF3SB29			ug/kg	6	J	15	U
		CF3SB30			ug/kg	4	JB	14	U
		CF3SB31			ug/kg	6	J	37	U
		CF3SB32			ug/kg	37	-	21	U
		CF3SB32D			ug/kg	10	J	12	U
		CF3SB1			ug/kg	6	J	37	U
		CF3SD1			ug/kg	37	-	15	U
		CF3SD1D			ug/kg	15	-		U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
			SEMIVOLATILE ORGANICS						
	53 ug/kg	CF3SD1	di-n-butylphthalate	SBLK3	ug/kg	600	B	600	U
		CF3SD1D			ug/kg	430	JB	480	U
		CF3SD2			ug/kg	470	B	470	U
	2000 ug/kg	CF3SB25	di-n-butylphthalate	SBLK4	ug/kg	2700	B	2700	U
		CF3SB26			ug/kg	2900	B	2900	U
		CF3SB27D			ug/kg	370	JB	400	U
		CF3SB28			ug/kg	63	JB	420	U
		CF3SB31			ug/kg	36	JB	460	U
		CF3SB32			ug/kg	64	JB	420	U
		CF3SB32D			ug/kg	140	JB	680	U
		CF3SS1			ug/kg	98	JB	390	U
		CF3SB1			ug/kg	54	JB	400	U
	17 ug/kg	CF3SB25	anthracene	SBLK4	ug/kg	22	JB	400	U
		CF3SB26			ug/kg	22	JB	430	U
	190 ug/kg	CF3SB25	bis(2-ethylhexyl) phthalate	SBLK4	ug/kg	160	JB	400	U
		CF3SB26			ug/kg	250	JB	430	U
		CF3SB27D			ug/kg	100	JB	400	U
		CF3SB28			ug/kg	100	JB	420	U
		CF3SB31			ug/kg	74	JB	460	U
		CF3SB32D			ug/kg	86	JB	680	U
	34 ug/kg	CF3SS24D	di-n-butylphthalate	SBLK5	ug/kg	92	JB	590	U
	19 ug/kg	CF3SB26RE	di-n-butylphthalate	SBLK6	ug/kg	27	JB	430	U
		CF3SB27DRE			ug/kg	23	JB	400	U
		CF3SB28RE			ug/kg	36	JB	420	U
		CF3SB30RE			ug/kg	30	JB	480	U
		CF3SB32RE			ug/kg	30	JB	420	U
		CF3SB32DRE			ug/kg	70	JB	680	U
		CF3SS1RE			ug/kg	29	JB	390	U
		CF3SB1RE			ug/kg	34	JB	400	U
	46 ug/L	CF3SB26RE	bis(2-ethylhexyl) phthalate	EB	ug/kg	61	J	430	U
		CF3SB28RE			ug/kg	89	J	420	U
		CF3SB29RE			ug/kg	350	J	400	U
		CF3SS24D			ug/kg	140	J	590	U
		CF3SB27			ug/kg	160	J	420	U
	38 ug/kg	CF3SB29RE	di-n-butylphthalate	SBLK7	ug/kg	89	JB	400	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
			PESTICIDE/PCB'S						
	0.12 ug/kg	CF3SB25	aldrin	PBLK1	ug/kg	0.13	JPB	2.1	U
		CF3SB26			ug/kg	0.17	JPB	2.2	U
		CF3SB27			ug/kg	0.25	JPB	2.2	U
		CF3SS24D			ug/kg	1.1	JPB	3.0	U
	0.13 ug/kg	CF3SB25	dieldrin	PBLK1	ug/kg	0.15	JPB	4.0	U
		CF3SB26			ug/kg	0.17	JPB	4.3	U
		CF3SB27			ug/kg	0.16	JPB	4.2	U
	0.63 ug/kg	CF3SB25	4,4'-DDT	PBLK1	ug/kg	0.6	JPB	4.0	U
		CF3SB26			ug/kg	0.57	JPB	4.3	U
		CF3SB27			ug/kg	0.82	JPB	4.2	U
		CF3SB27D			ug/kg	0.87	JPB	4.1	U
		CF3SB29			ug/kg	0.96	JB	4.0	U
		CF3SB31			ug/kg	1.6	JB	4.6	U
		CF3SS24D		PBLK1	ug/kg	0.79	JPB	5.9	U
	1.3 ug/kg	CF3SB25	methoxychlor		ug/kg	1.5	JPB	21	U
		CF3SB26			ug/kg	1.3	JPB	22	U
		CF3SB27			ug/kg	1.5	JPB	21	U
		CF3SB27D			ug/kg	1.3	JB	21	U
		CF3SS24D			ug/kg	4.0	JPB	30	U
	0.65 ug/kg	CF3SD1	4,4'-DDT	PBLK3	ug/kg	110	B	110	
	1.7 ug/kg	CF3SD1	methoxychlor	PBLK3	ug/kg	3.7	JB	23	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA036	5.1 ug/L	CF3SS24D	barium	EB3	mg/kg	8.6	B	8.6	U
		CF3SB25			mg/kg	2.2	B	2.2	U
		CF3SB26			mg/kg	1.9	B	1.9	U
		CF3SB27			mg/kg	1.7	B	1.7	U
		CF3SB27D			mg/kg	1.6	B	1.6	U
		CF3SB29			mg/kg	2.0	B	2.0	U
		CF3SB30			mg/kg	7.3	B	7.3	U
		CF3SB31			mg/kg	1.7	B	1.7	U
		CF3SB32			mg/kg	1.4	B	1.4	U
		CF3SB32d			mg/kg	4.3	B	4.3	U
		CF3SS1			mg/kg	1.6	B	1.6	U
		CF3SB1			mg/kg	1.8	B	1.8	U
		CF3SD1			mg/kg	3.7	B	3.7	U
		CF3SD1D			mg/kg	3.4	B	3.4	U
		CF3SD2			mg/kg	3.2	B	3.2	U
	216 ug/L	CF3SB25	calcium	EB3	mg/kg	185	B	185	U
		CF3SB26			mg/kg	173	B	173	U
		CF3SB27			mg/kg	87.2	B	87.2	U
		CF3SB27D			mg/kg	81.5	B	81.5	U
		CF3SB29			mg/kg	272	B	272	U
		CF3SB31			mg/kg	153	B	153	U
		CF3SB32			mg/kg	123	B	123	U
		CF3SS1			mg/kg	145	B	145	U
		CF3SB1			mg/kg	60.6	B	60.6	U
	0.6 mg/kg	CF3SS24D	chromium	PBS	mg/kg	0.82	B	0.82	U
		CF3SB25			mg/kg	1.1	B	1.1	U
		CF3SB26			mg/kg	1.1	B	1.1	U
		CF3SB27			mg/kg	1.0	B	1.0	U
		CF3SB27D			mg/kg	1.0	B	1.0	U
		CF3SB29			mg/kg	2.3	B	2.3	U
		CF3SB32			mg/kg	0.88	B	0.88	U
		CF3SB32d			mg/kg	1.0	B	1.0	U
		CF3SS1			mg/kg	0.84	B	0.84	U
		CF3SB1			mg/kg	1.4	B	1.4	U
		CF3SD1			mg/kg	0.59	B	0.59	U
		CF3SD1D			mg/kg	1.0	B	1.0	U
		CF3SD2			mg/kg	0.60	B	0.60	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA036	9.2 ug/L	CF3SS24D	copper	EB3	mg/kg	2.5	B	2.5	U
		CF3SB25			mg/kg	0.99	B	0.99	U
		CF3SB27D			mg/kg	0.82	B	0.82	U
		CF3SB30			mg/kg	10.6	-	10.6	U
		CF3SB31			mg/kg	0.99	B	0.99	U
		CF3SB32d			mg/kg	3.9	B	3.9	U
		CF3SS1			mg/kg	0.75	B	0.75	U
		CF3SD1			mg/kg	2.6	B	2.6	U
		CF3SD1D			mg/kg	2.1	B	2.1	U
		CF3SD2			mg/kg	1.6	B	1.6	U
	27.0 ug/L	CF3SB27D	magnesium	EB3	mg/kg	30.1	B	30.1	U
		CF3SS1			mg/kg	21.5	B	21.5	U
	0.39 mg/kg	CF3SB27D	manganese	PBS	mg/kg	1.9	B	1.9	U
		CF3SB31			mg/kg	1.2	B	1.2	U
		CF3SB32			mg/kg	0.94	B	0.94	U
		CF3SS1			mg/kg	1.3	B	1.3	U
	0.80 mg/kg	CF3SS24D	nickel	PBS	mg/kg	0.89	B	0.89	U
		CF3SB25			mg/kg	0.81	B	0.81	U
		CF3SB27			mg/kg	0.60	B	0.60	U
		CF3SB27D			mg/kg	0..57	B	0..57	U
		CF3SB28			mg/kg	1.4	B	1.4	U
		CF3SB29			mg/kg	1.6	B	1.6	U
		CF3SB30			mg/kg	2.3	B	2.3	U
		CF3SB32			mg/kg	0.62	B	0.62	U
		CF3SB32d			mg/kg	1.7	B	1.7	U
		CF3SS1			mg/kg	0.57	B	0.57	U
		CF3SB1			mg/kg	0.68	B	0.68	U
		CF3SD1D			mg/kg	1.9	B	1.9	U
	34.2 ug/L	CF3SS24D	potassium	EB3	mg/kg	40.9	B	40.9	U
		CF3SB25			mg/kg	22.2	B	22.2	U
		CF3SB26			mg/kg	20.3	B	20.3	U
		CF3SB27			mg/kg	18.5	B	18.5	U
		CF3SB27D			mg/kg	17.8	B	17.8	U
		CF3SB29			mg/kg	22.0	B	22.0	U
		CF3SB30			mg/kg	30.5	B	30.5	U
		CF3SB31			mg/kg	24.3	B	24.3	U
		CF3SB32			mg/kg	19.8	B	19.8	U
		CF3SB32d			mg/kg	43.6	B	43.6	U
		CF3SS1			mg/kg	17.1	B	17.1	U
		CF3SB1			mg/kg	18.5	B	18.5	U
		CF3SD1			mg/kg	23.4	B	23.4	U
		CF3SD1D			mg/kg	22.2	B	22.2	U
		CF3SD2			mg/kg	37.7	B	37.7	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA036	401 ug/L	CF3SS24D	sodium	EB3	mg/kg	284	B	284	U
		CF3SB25			mg/kg	124	B	124	U
		CF3SB26			mg/kg	140	B	140	U
		CF3SB27			mg/kg	143	B	143	U
		CF3SB27D			mg/kg	135	B	135	U
		CF3SB28			mg/kg	361	B	361	U
		CF3SB29			mg/kg	147	B	147	U
		CF3SB30			mg/kg	214	B	214	U
		CF3SB31			mg/kg	181	B	181	U
		CF3SB32			mg/kg	184	B	184	U
		CF3SB32d			mg/kg	298	B	298	U
		CF3SS1			mg/kg	158	B	158	U
		CF3SB1			mg/kg	104	B	104	U
		CF3SD1			mg/kg	194	B	194	U
		CF3SD1D			mg/kg	190	B	190	U
		CF3SD2			mg/kg	172	B	172	U
	16.8 ug/L	CF3SS24D	zinc		mg/kg	11.3	-	11.3	U
		CF3SB25			mg/kg	3.5	B	3.5	U
		CF3SB26			mg/kg	3.8	B	3.8	U
		CF3SB27			mg/kg	4.1	B	4.1	U
		CF3SB27D			mg/kg	3.2	B	3.2	U
		CF3SB29			mg/kg	7.7	-	7.7	U
		CF3SB31			mg/kg	4.0	B	4.0	U
		CF3SB32			mg/kg	4.1	B	4.1	U
		CF3SB32d			mg/kg	11.1	-	11.1	U
		CF3SS1			mg/kg	4.6	B	4.6	U
		CF3SB1			mg/kg	3.5	B	3.5	U
		CF3SD1			mg/kg	9.7	-	9.7	U
		CF3SD1D			mg/kg	8.9	-	8.9	U
		CF3SD2			mg/kg	10.1	-	10.1	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA037	20 ug/L	CF302	VOLATILE ORGANICS acetone	TRIP CF3MW1 ST	ug/L	2	-	2	U
	14 ug/L	CF3MW13S	SEMIVOLATILE ORGANICS bis(2-ethylhexyl)phthalate	SBLK2	ug/L	3.0	JB	10	U
			PESTICIDE/PCB'S (No positive detections))			-	-	-	-

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA037	78.4 ug/L	CF3SC3	aluminum	PBW	ug/L	41.2	B	41.2	U
		CF3SW1F				130	B	130	U
		CF3SW1DF				307	-	307	U
		CF3SW2				234	-	234	U
		CF3SW2F				116	B	116	U
		CF30F2				47.8	B	47.8	U
		CF30F2F				28.4	B	28.4	U
	121 ug/L	CF30F2	calcium	PBW	ug/L	67.4	B	67.4	U
		CF30F2F				108	B	108	U
	53.3 ug/L	CF3SC2F	iron	PBW	ug/L	20.6	B	20.6	U
		CF30F2				11.7	B	11.7	U
		CF30F2F				13.5	B	13.5	U
	-1.23 ug/L	CF3MW13S	lead	PBW	ug/L	1.0	U	1.0	UJ
		CF3MW13SF				1.0	U	1.0	UJ
		CF3MW28S				1.0	U	1.0	UJ
		CF3MW28SF				1.0	U	1.0	UJ
		CF3SC2				2.5	B	2.5	J
		CF3SC2F				1.0	U	1.0	UJ
		CF3SW1				1.0	U	1.0	UJ
		CF3SW1F				1.0	U	1.0	UJ
		CF3SW1D				2.2	B	2.2	J
		CF3SW1DF				1.0	U	1.0	UJ
		CF2SW2				1.0	U	1.0	UJ
		CF3SW2F				1.0	U	1.0	UJ
		CF30F2				1.0	U	1.0	UJ
		CF30F2F				1.0	U	1.0	UJ
	90.3 ug/L	CF30F2F	magnesium	PBW	ug/L	11.3	B	11.3	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA037	1.84 ug/L	CF3MW28S	manganese	PBW	ug/L	5.8	B	5.8	U
		CF3MW28SF				6.0	B	6.0	U
		CF3SC2				2.5	B	2.5	U
		CF3SC2F				1.8	B	1.8	U
		CF30F2				1.2	B	1.2	U
		CF30F2F				11.3	B	11.3	U
	21.6 ug/L	CF3MW13S	zinc	PBW	ug/L	49.0	-	49.0	U
		CF3MW13SF				52.8	-	52.8	U
		CF3MW28S				45.1	-	45.1	U
		CF3MW28SF				48.1	-	48.1	U
		CF3SW1				28.1	-	28.1	U
		CF3SW1F				46.7	-	46.7	U
		CF3SW1D				30.3	-	30.3	U
		CF3SW1DF				41.9	-	41.9	U
		SF3SW2				19.4	B	19.4	U
		CF3SW2F				33.5	-	33.5	U

Table 6
REJECTED DATA
OPERABLE UNIT 8
NAS CECIL FIELD JACKSONVILLE, FLORIDA

SDG NO.	FRACTION	SAMPLE	No. Of Rejected Analytes	ANALYTE	REASON
WA020	Volatiles	CF3MW16S	1	2-hexanone	Low RRF in Continuing Calibrations
	Semivolatiles	CF3SC	14	all acid fraction results	%R for phenol Surrogate
WA021	Volatiles	CF3MW24D CF3MW24DT CF3MW29D CF3MW29DD CF3MW30DD CF3MW30DDR CF3MW30DDT	7	2-hexanone	Low RRF's in Continuing Calibrations
WA022	None	None	0	None	None
WA023	Metals/Cyanide	CF3MW13S CF3MW14I CF3MW15D CF3MW23S CF3MW25S CF3MW28S CF3MW32D CF3MW31S	8	selenium non-detects	0% recovery in MS(total)
WA024	None	None	0	None	None
WA034	Pesticides/PCB's	CF3SS7RE CF3SS8RE CF3SS9RE CF3SS10RE CF3SB7RE CF3SB8RE CF3SB9RE	8 8 8 8 8 8 8	aldrin aldrin aldrin aldrin aldrin aldrin aldrin	%R (0) in CF#SS10REMSD %R (0) in CF#SS10REMSD %R (0) in CF#SS10REMSD %R (0) in CF#SS10REMSD %R (0) in CF#SS10REMSD %R (0) in CF#SS10REMSD %R (0) in CF#SS10REMSD
		CF3SS2 CF3SS7 CF3SB7 CF3SS8 CF3SS7RE CF3SB7RE CF3SB8RE CF3SB9RE CF3SS9RE CF3SS10RE CF3SS10DRE	11 11 11 11 11 11 11 11 11 11 11	alpha-chlordane endrin endrin ketone endrin ketone aldrin aldrin aldrin aldrin aldrin aldrin alpha-chlordane	high PIS% (>300%) high PIS% (>300%) high PIS% (>300%) high PIS% (>300%) high PIS% (>300%) high PIS% (>300%) high PIS% (>300%) high PIS% (>300%) high PIS% (>300%) high PIS% (>300%) high PIS% (>300%)

Table 6 (Cont'd)

SDG NO.	FRACTION	SAMPLE	No. Of Rejected Analytes	ANALYTE	REASON
WA035	Pesticides/PCB's	CF3SB10	13	aldrin	high PIS% D (>300%)
		CF3SB10D		aldrin	
		CF3SB11		aldrin	
		CF3SB12		aldrin	
		CF3SB12		endrin ketone	
		CF3SB13		aldrin	
		CF3SS11		aldrin	
		CF3SS12		aldrin	
		CF3SS13		aldrin	
		CF3SS14		aldrin	
		CF3SS15		aldrin	
		CF3SS15		endrin aldehyde	
		CF3SS20D		beta-BHC	
	Metals/Cyanide	all non-detect results	19	selenuim	%R for Spike Recovery below 3.0%
WA036	Pesticides/PCB's	CF3SD1RE2	28	all results	Holding Time exceedance (38days)
		CF3S01	1	4.4'-DDT	0% R for 4.4'-DDT in CF3SD1MS and CF3SD1MSD
WA037	Volatiles	CF3MW28S	1	2-hexanone	Low RRF in Continuing Calibration

Table 7
PESTICIDE COLUMN PERCENT DIFFERENCES
OPERABLE UNIT 8
NAS CECIL FIELD JACKSONVILLE, FLORIDA

SDG NO	SAMPLE NO	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA020	None	None	None	None	None
WA021	None	None	None	None	None
WA022	CF3MW1	beta-BHC	0.052	0.047	11
	CF3MW3S	endosulfan I	0.015	0.082	447
	CF3MW3S	aroclor-1248	0.80	1.2	50
	CF3MW3SD	endosulfan I	0.01	0.059	490
	CF3MW4S	aroclor-1248	0.60	0.73	22
	CF3MW5S	beta-BHC	0.022	0.15	582
		aldrin	0.005	0.044	780
	CF3MW6S	endosulfan II	0.051	0.042	21
		aroclor-1248	0.84	0.79	6.3
		aldrin	0.01	0.07	600
	CF3MW6SR	beta-BHC	0.072	0.21	192
	CF3MW7D	aldrin	0.005	0.10	1900
		heptachlor	0.005	0.021	320
	CF3MW7DD	heptachlor	0.022	0.018	22
	CF3MW7DDR	aldrin	0.022	0.067	205
		heptachlor	0.021	0.013	62
	CF3MW7S	aroclor-1242	0.55	3.2	482
		heptachlor	0.004	0.014	250
	CF3MW18S	beta-BHC	0.048	0.13	171
	CF3MW19D	beta-BHC	0.045	0.13	189
	CF3MW27D	heptachlor	0.005	0.023	360
WA023	None	None	None	None	None
WA024	None	None	None	None	None

Table 7 (Cont'd)

SDG NO	SAMPLE NO	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA034	CF3SB2	dieldrin	0.30	0.29	3.4
		endosulfan II	0.41	0.46	12
		4,4'-DDT	1.6	1.5	6.7
	CF3SB3	dieldrin	0.38	0.29	31
		4,4'-DDT	0.59	1.6	171.2
	CF3SB4	4,4'-DDT	0.82	1.4	71
		methoxychlor	1.8	1.0	80
	CF3SB5	4,4'-DDT	1.4	1.1	27.3
		methoxychlor	1.5	1.0	50
	CF3SB6	4,4'-DDT	1.1	1.2	9.1
		methoxychlor	1.7	1.1	55
	CF3SB7	dieldrin	5.7	5.8	1.8
		4,4'-DDT	30	31	3.3
		methoxychlor	1.9	1.1	73
		endrin ketone	0.38	7.3	1820
	CF3SB7RE	aldrin	0.47	120	25400
		alpha-Chlordane	0.09	0.29	222.2
	CF3SB8	dieldrin	1.7	2.1	24
		4,4'-DDT	9.4	11	17
	CF3SB8RE	aldrin	0.57	150	26200
		dieldrin	0.16	0.36	125
		alpha-Chlordane	0.3	0.21	43
	CF3SB9	dieldrin	2.3	2.1	9.5
		4,4'-DDT	12	13	8.3
	CF3SB9RE	aldrin	0.88	19	2060
	CF3SS2	dieldrin	1.6	2.6	63
		alpha-Chlordane	0.95	4.2	342
	CF3SS3	endosulfan II	0.63	0.75	19
		4,4'-DDT	0.52	1.5	189
	CF3SS4	endosulfan II	0.26	0.42	62
		4,4'-DDT	1.2	1.4	17
	CF3SS5	4,4'-DDT	1.4	1.6	14
	CF3SS6	dieldrin	0.25	0.28	12
		4,4'-DDT	1.3	2.3	77
	CF3SS7	endosulfan I	0.27	0.54	100
		dieldrin	0.58	0.69	19
		endrin	0.45	20	4340
		4,4'-DDT	3.8	5.5	45
		alpha-Chlordane	0.27	0.67	148
		gamma-Chlordane	0.3	0.45	50

Table 7 (Cont'd)

SDG NO	SAMPLE NO	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA034 (Cont'd)	CF3SS7RE	aldrin	0.61	64	10400
		alpha-Chlordane	0.25	0.37	48
		gamma-Chlordane	0.58	0.17	241.2
	CF3SS8	4,4'-DDT	19	22	16
		endrin ketone	0.44	12	2630
	CF3SS8RE	dieldrin	0.14	0.23	64.3
	CF3SS9	dieldrin	0.93	0.77	21
		4,4'-DDT	3.5	5.2	49
	CF3SS9RE	aldrin	0.74	3.5	373
		dieldrin	0.31	0.29	6.9
		alpha-Chlordane	0.099	0.18	82
	CF3SS10	dieldrin	2.2	1.6	38
		4,4'-DDT	8.6	9.5	11
	CF3SS10RE	aldrin	0.77	56	7170
	CF3SS10RE	aroclor-1254	12	10	20
	CF3SS10D	dieldrin	4.9	7.4	51
	CF3SS10DRE	alpha-Chlordane	0.51	0.12	325
WA035	CF3SB10	aldrin	0.3	3.8	1170
		dieldrin	0.9	1.1	22
		endrin	1.0	1.3	30
		4,4'-DDT	0.78	1.2	54
	CF3SB10D	aldrin	0.24	3.1	1190
		4,4'-DDT	0.2	0.62	210
	CF3SB10RE	dieldrin	0.58	0.69	19
		4,4'-DDT	4.2	5.4	29
		methoxychlor	2.8	3.3	18
	CF3SB10DRE	dieldrin	1.0	1.1	10
		4,4'-DDT	7.6	8.2	7.9
		methoxychlor	2.6	2.7	3.8
	CF3SB11	aldrin	0.2	0.94	370
		4,4'-DDE	0.52	0.28	86
		4,4'-DDT	0.19	2.3	1110
		methoxychlor	1.3	8.0	515

Table 7 (Cont'd)

SDG NO	SAMPLE NO	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA035 (Cont'd)	CF3SB11RE	dieldrin	1.8	2.4	33
		4.4'-DDE	1.5	1.4	7.1
		4.4'-DDT	60	58	3.4
	CF3SB12	aldrin	0.14	2.3	1540
		4.4'-DDE	1.2	0.78	54
		endosulfan II	0.13	0.18	39
		methoxychlor	3.4	0.79	330
	CF3SB12RE	alpha-BHC	39	41	5.1
		delta-BHC	1.3	1.2	8.3
		dieldrin	0.63	0.81	29
		4.4'-DDT	7.5	7.9	5.3
	CF3SB13	aldrin	0.26	2.5	862
		dieldrin	0.14	0.35	150
		endosulfan II	0.4	0.23	74
		4.4'-DDT	0.91	0.76	20
		methoxychlor	1.8	1.5	20
	CF3SB13RE	dieldrin	0.85	0.96	13
		4.4'-DDT	8.0	8.5	6.2
	CF3SS11	aldrin	0.11	1.9	1630
		4.4'-DDT	0.72	120	16600
		methoxychlor	1.6	46	2775
		endrin ketone	4.0	5.6	40
	CF3SS11RE	dieldrin	0.93	1.0	7.5
		4.4'-DDT	6.8	9.0	32
		methoxychlor	3.1	2.3	35
	CF3SS12	aldrin	0.45	2.5	456
		4.4'-DDE	0.56	0.17	229
		endosulfan II	0.15	0.38	153
		4.4'-DDT	0.72	1.6	122
		methoxychlor	1.9	0.82	132
		endrin ketone	39	5.4	622
	CF3SS12RE	4,4'-DDT	6.2	6.7	8.1
	CF3SS13	aldrin	1.1	130	11700
		endosulfan II	1.1	0.31	255
		methoxychlor	2.7	3.3	22
		endrin aldehyde	0.21	1.9	805
	CF3SS13RE	dieldrin	0.57	0.66	16
		4.4'-DDT	5.1	5.7	12
	CF3SS14	aldrin	0.29	1.6	452
		4,4'-DDT	1.2	1.5	25
		methoxychlor	2.6	1.9	37
	CF3SS14RE	4.4'-DDT	3.9	4.3	10

Table 7 (Cont'd)

SDG NO	SAMPLE NO	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA035 (Cont'd)	CF3SS15	beta-BHC	0.34	0.8	135
		aldrin	0.25	1.4	460
		endosulfan II	0.17	0.22	29
		4.4'-DDT	0.38	0.85	124
		endrin aldehyde	0.23	1.1	378
	CF3SS15RRE	dieldrin	0.73	0.78	6.8
		4.4'-DDT	5.8	6.3	8.6
	CF3SS16	aldrin	0.24	0.91	279
		dieldrin	1.6	1.3	23
		4.4'-DDT	10	11	10
		methoxychlor	4.0	4.7	18
	CF3SS17	aldrin	0.23	2.3	900
		4.4'-DDT	8.5	9.2	8.2
		methoxychlor	3.2	3.0	6.7
	CF3SS18	aldrin	0.13	1.9	1360
		dieldrin	0.87	0.85	2.4
		4.4'-DDT	2.7	3.9	44
		methoxychlor	1.8	1.7	5.9
		alpha-Chlordane	0.26	0.35	35
		gamma-Chlordane	0.29	0.22	32
	CF3SS19	aldrin	0.22	1.3	491
		dieldrin	2.4	2.2	9.1
		4.4'-DDT	8.8	13	48
		methoxychlor	2.5	2.7	8.0
		alpha-Chlordane	0.58	0.76	31
		gamma-Chlordane	0.8	0.84	5.0
	CF3SS20	aldrin	0.17	1.3	665
		dieldrin	0.81	0.86	6.2
		4.4'-DDT	4.8	5.3	10
		methoxychlor	3.2	1.8	78
		gamma-Chlordane	0.088	0.13	48
	CF3SS20D	beta-BHC	0.15	0.62	313
		aldrin	0.24	1.2	400
		dieldrin	0.73	0.78	6.8
		4.4'-DDT	3.4	4.1	21
		methoxychlor	2.3	1.2	92
		alpha-Chlordane	0.22	0.19	16
		gamma-Chlordane	0.15	0.22	47
	CF3SS21	aldrin	0.15	1.1	633
		dieldrin	0.34	0.36	5.9
		4.4'-DDT	2.9	3.6	24
		methoxychlor	2.1	2.8	33
	CF3SS22	aldrin	0.12	0.84	600
		4.4'-DDT	1.3	1.6	23
		methoxychlor	2.1	2.5	19

Table 7 (Cont'd)

SDG NO	SAMPLE NO	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA035 (Cont'd)	CF3SS23	aldrin	0.38	0.83	118
		dieldrin	0.94	0.29	224
		4.4'-DDT	3.4	2.3	48
		methoxychlor	5.7	78	1270
	CF3SS24	alpha-BHC	0.47	0.28	68
		aldrin	0.32	2.1	556
		dieldrin	0.32	0.38	19
		4.4'-DDT	2.2	3.0	36
		methoxychlor	2.2	3.1	41
	CF3SB11RE2	4.4'-DDT	2.9	4.3	48
	CF3SS20DRE	4.4'-DDT	2.1	2.9	38
WA036	CF3SB25	aldrin	0.13	2.2	1590
		dieldrin	0.15	0.24	60
		endosulfan II	0.15	0.28	87
		4.4'-DDT	0.6	0.95	58
		methoxychlor	1.9	1.5	27
		endrin ketone	0.32	6.0	1780
	CF3SB26	aldrin	0.17	3.6	2020
		dieldrin	0.17	0.28	65
		4.4'-DDT	0.57	1.3	128
		methoxychlor	2.2	1.3	69
	CF3SB27	aldrin	0.25	4.9	1860
		dieldrin	0.16	0.33	106
		4.4'-DDT	0.82	1.1	34
		methoxychlor	2.0	1.5	33
	CF3SB27D	4.4'-DDT	0.87	1.3	49
		methoxychlor	1.3	1.6	23
	CF3SB28	alpha-Chlordane	0.58	0.41	42
		gamma-Chlordane	0.47	0.78	66
	CF3SB29	4.4'-DDT	0.96	1.0	4.2
	CF3SB31	4.4'-DDT	1.6	1.9	19
	CF3SS24D	aldrin	1.1	3.5	218
		endosulfan II	0.65	0.4	63
		4.4'-DDT	1.5	0.79	90
		methoxychlor	4.0	9.6	140
		alpha-Chlordane	0.21	0.34	62

Table 7 (Cont'd)

SDG NO	SAMPLE NO	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA036 (Cont'd)	CF3SD1	dieldrin	17	21	24
		4.4' DDT	120	110	9.1
		methoxychlor	3.8	3.7	2.7
		endrin ketone	0.66	0.55	20
	CF3SD1RE	4.4'-DDE	0.53	0.52	1.9
		4.4'-DDT	5.4	4.4	23
	CF3SD1RE2	4.4'-DDT	0.84	1.8	114
WA037	None	None	None	None	None

APPENDIX D

VALIDATED REMEDIAL INVESTIGATION AND BASELINE REMEDIAL ASSESSMENT DATA

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336006				31624006				20336006R				20336007			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-1-1				BOR3-1-1				BOR3-1-1_R				BOR3-1-2			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS																
Chloromethane	11	UJ	ug/kg	11	-				11	U	ug/kg	11	12	U	ug/kg	12
Bromomethane	11	UJ	ug/kg	5	-				11	U	ug/kg	11	12	U	ug/kg	12
Vinyl Chloride	11	UJ	ug/kg	11	-				11	U	ug/kg	11	12	U	ug/kg	12
Chloroethane	11	UJ	ug/kg	11	-				11	U	ug/kg	11	12	U	ug/kg	12
Methylene Chloride	12	UJ	ug/kg	5	-				50	U	ug/kg	5	31	U	ug/kg	6
Acetone	11	UJ	ug/kg	11	-				24	U	ug/kg	11	25	U	ug/kg	12
Carbon disulfide	5	UJ	ug/kg	5	-				1	J	ug/kg	5	2	J	ug/kg	6
1,1-Dichloroethene	5	UJ	ug/kg	5	-				5	U	ug/kg	5	6	U	ug/kg	6
1,1-Dichloroethane	5	UJ	ug/kg	5	-				5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloroethene (total)	5	UJ	ug/kg	5	-				5	U	ug/kg	5	6	U	ug/kg	6
Chloroform	5	UJ	ug/kg	5	-				5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloroethane	5	UJ	ug/kg	5	-				5	U	ug/kg	5	6	U	ug/kg	6
2-Butanone	11	UJ	ug/kg	11	-				11	U	ug/kg	11	12	U	ug/kg	12
1,1,1-Trichloroethane	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Carbon tetrachloride	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Vinyl acetate	11	UJ	ug/kg	11	-				11	UJ	ug/kg	11	12	U	ug/kg	12
Bromodichloromethane	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
1,2-Dichloropropane	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
cis-1,3-Dichloropropene	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Trichloroethene	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Dibromochloromethane	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
1,1,2-Trichloroethane	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Benzene	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
trans-1,3-Dichloropropene	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Bromoform	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
4-Methyl-2-pentanone	11	UJ	ug/kg	11	-				11	UJ	ug/kg	11	12	U	ug/kg	12
2-Hexanone	11	UJ	ug/kg	11	-				11	UJ	ug/kg	11	12	U	ug/kg	12
Tetrachloroethene	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Toluene	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Chlorobenzene	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Ethyl Benzene	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Styrene	5	UJ	ug/kg	5	-				5	UJ	ug/kg	5	6	U	ug/kg	6
Xylenes (total)	4	J	ug/kg	5	-				2	J	ug/kg	5	2	J	ug/kg	6
CLP SEMIVOLATILES																
Phenol	360	U	ug/kg	330	-				-				380	U	ug/kg	330
bis(2-Chloroethyl) ether	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2-Chlorophenol	360	U	ug/kg	330	-				-				380	U	ug/kg	330
1,3-Dichlorobenzene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
1,4-Dichlorobenzene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Benzyl Alcohol	-				-				-				-			
1,2-Dichlorobenzene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2-Methylphenol	360	U	ug/kg	330	-				-				380	U	ug/kg	330
bis(2-Chloroisopropyl) ether	-				-				-				-			
4-Methylphenol	360	U	ug/kg	330	-				-				380	U	ug/kg	330
N-Nitroso-di-n-propylamine	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Hexachloroethane	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Nitrobenzene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Isophorone	360	U	ug/kg	330	-				-				380	U	ug/kg	330

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336006				31624006				20336006R				20336007			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-1-1				BOR3-1-1				BOR3-1-1 R				BOR3-1-2			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
2-Nitrophenol	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2,4-Dimethylphenol	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Benzoic Acid	1700	U	ug/kg	1600	-				-				1900	U	ug/kg	1600
bis(2-Chloroethoxy) methane	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2,4-Dichlorophenol	360	U	ug/kg	330	-				-				380	U	ug/kg	330
1,2,4-Trichlorobenzene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Naphthalene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
4-Chloroaniline	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Hexachlorobutadiene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
4-Chloro-3-methylphenol	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2-Methylnaphthalene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Hexachlorocyclopentadiene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2,4,6-Trichlorophenol	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2,4,5-Trichlorophenol	1700	U	ug/kg	1600	-				-				1900	U	ug/kg	1600
2-Chloronaphthalene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2-Nitroaniline	1700	U	ug/kg	1600	-				-				1900	U	ug/kg	1600
Dimethylphthalate	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Acenaphthylene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2,6-Dinitrotoluene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
3-Nitroaniline	1700	U	ug/kg	1600	-				-				1900	U	ug/kg	1600
Acenaphthene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2,4-Dinitrophenol	1700	U	ug/kg	1600	-				-				1900	U	ug/kg	1600
4-Nitrophenol	1700	U	ug/kg	1600	-				-				1900	U	ug/kg	1600
Dibenzofuran	360	U	ug/kg	330	-				-				380	U	ug/kg	330
2,4-Dinitrotoluene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Diethylphthalate	360	U	ug/kg	330	-				-				380	U	ug/kg	330
4-Chlorophenyl-phenylether	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Fluorene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
4-Nitroaniline	1700	U	ug/kg	1600	-				-				1900	U	ug/kg	1600
4,6-Dinitro-2-methylphenol	1700	U	ug/kg	1600	-				-				1900	U	ug/kg	1600
N-Nitrosodiphenylamine (1)	360	U	ug/kg	330	-				-				380	U	ug/kg	330
4-Bromophenyl-phenylether	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Hexachlorobenzene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Pentachlorophenol	1700	U	ug/kg	1600	-				-				1900	U	ug/kg	1600
Phenanthrene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Anthracene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Di-n-butylphthalate	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Fluoranthene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Pyrene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Butylbenzylphthalate	360	U	ug/kg	330	-				-				380	U	ug/kg	330
3,3'-Dichlorobenzidine	-				-				-				-			
Benzo (a) anthracene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Chrysene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
bis(2-Ethylhexyl) phthalate	52	J	ug/kg	330	-				-				76	J	ug/kg	330
Di-n-octylphthalate	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Benzo (b) fluoranthene	88	J	ug/kg	330	-				-				380	U	ug/kg	330
Benzo (k) fluoranthene	79	J	ug/kg	330	-				-				380	U	ug/kg	330
Benzo (a) pyrene	55	J	ug/kg	330	-				-				380	U	ug/kg	330
Indeno (1,2,3-cd) pyrene	59	J	ug/kg	330	-				-				380	U	ug/kg	330
Dibenz (a,h) anthracene	360	U	ug/kg	330	-				-				380	U	ug/kg	330
Benzo (g,h,i) perylene	87	J	ug/kg	330	-				-				380	U	ug/kg	330

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

	Lab Sample Number:	20336006				31624006				20336006R				20336007			
	Site	CECIL				CECIL				CECIL				CECIL			
	Locator	BOR3-1-1				BOR3-1-1				BOR3-1-1_R				BOR3-1-2			
	Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS																	
alpha-BHC		8.7	U	ug/kg	8.7	-				-				9.3	U	ug/kg	9.3
beta-BHC		8.7	U	ug/kg	8.7	-				-				9.3	U	ug/kg	9.3
delta-BHC		8.7	U	ug/kg	8.7	-				-				9.3	U	ug/kg	9.3
gamma-BHC (Lindane)		8.7	U	ug/kg	8.7	-				-				9.3	U	ug/kg	9.3
Heptachlor		8.7	U	ug/kg	8.7	-				-				9.3	U	ug/kg	9.3
Aldrin		8.7	U	ug/kg	8.7	-				-				9.3	U	ug/kg	9.3
Heptachlor epoxide		8.7	U	ug/kg	8.7	-				-				9.3	U	ug/kg	9.3
Endosulfan I		8.7	U	ug/kg	8.7	-				-				9.3	U	ug/kg	9.3
Dieldrin		17	U	ug/kg	17	-				-				19	U	ug/kg	19
4,4'-DDE		-				-				-				-			
Endrin		17	U	ug/kg	17	-				-				19	U	ug/kg	19
Endosulfan II		17	U	ug/kg	17	-				-				19	U	ug/kg	19
4,4'-DDD		-				-				-				-			
Endosulfan sulfate		17	U	ug/kg	17	-				-				19	U	ug/kg	19
4,4'-DDT		-				-				-				-			
Methoxychlor		87	U	ug/kg	87	-				-				93	U	ug/kg	93
Endrin ketone		17	U	ug/kg	17	-				-				19	U	ug/kg	19
alpha Chlordane		87	U	ug/kg	87	-				-				93	U	ug/kg	93
gamma-Chlordane		87	U	ug/kg	87	-				-				93	U	ug/kg	93
Toxaphene		170	U	ug/kg	170	-				-				190	U	ug/kg	190
Aroclor-1016		87	U	ug/kg	87	-				-				93	U	ug/kg	93
Aroclor-1221		87	U	ug/kg	87	-				-				93	U	ug/kg	93
Aroclor-1232		87	U	ug/kg	87	-				-				93	U	ug/kg	93
Aroclor-1242		87	U	ug/kg	87	-				-				93	U	ug/kg	93
Aroclor-1248		87	U	ug/kg	87	-				-				93	U	ug/kg	93
Aroclor-1254		170	U	ug/kg	170	-				-				190	U	ug/kg	190
Aroclor-1260		170	U	ug/kg	170	-				-				190	U	ug/kg	190
CLP METALS AND CYANIDE																	
Aluminum		-				1500		mg/kg	40	-				-			
Antimony		-				2.49	UJ	mg/kg	12	-				-			
Arsenic		-				.18	J	mg/kg	2	-				-			
Barium		-				2.51	J	mg/kg	40	-				-			
Beryllium		-				.15	J	mg/kg	1	-				-			
Cadmium		-				.29	UJ	mg/kg	1	-				-			
Calcium		-				11500	J	mg/kg	1000	-				-			
Chromium		-				1.6	J	mg/kg	2	-				-			
Cobalt		-				.64	UJ	mg/kg	10	-				-			
Copper		-				1.8	J	mg/kg	5	-				-			
Iron		-				395		mg/kg	20	-				-			
Lead		-				2.4		mg/kg	1	-				-			
Magnesium		-				120	J	mg/kg	1000	-				-			
Manganese		-				6.1	J	mg/kg	3	-				-			
Mercury		-				.031	U	mg/kg	.1	-				-			
Nickel		-				2.6	UJ	mg/kg	8	-				-			
Potassium		-				62.9	J	mg/kg	1000	-				-			
Selenium		-				.088	UJ	mg/kg	1	-				-			
Silver		-				.4	U	mg/kg	2	-				-			
Sodium		-				131	J	mg/kg	1000	-				-			
Thallium		-				.18	U	mg/kg	2	-				-			
Vanadium		-				1.4	UJ	mg/kg	10	-				-			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336006			31624006			20336006R			20336007		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	BOR3-1-1			BOR3-1-1			BOR3-1-1_R			BOR3-1-2		
Collect Date:	04-DEC-91			04-DEC-91			04-DEC-91			04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Zinc	-				2.5	UJ	mg/kg	4	-				-			
Cyanide	-				.55	U	mg/kg	2	-				-			
TOC																
Total organic carbon	-				-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31624007			20336007RX			20336008			31624008		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	BOR3-1-2			BOR3-1-2_RX			BOR3-2-1			BOR3-2-1		
Collect Date:	04-DEC-91			04-DEC-91			04-DEC-91			04-DEC-91		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP VOLATILE COMPOUNDS												
Chloromethane	-			-			11	UJ ug/kg	11	-		
Bromomethane	-			-			11	UJ ug/kg	11	-		
Vinyl Chloride	-			-			11	UJ ug/kg	11	-		
Chloroethane	-			-			11	UJ ug/kg	11	-		
Methylene Chloride	-			-			25	UJ ug/kg	5	-		
Acetone	-			-			18	UJ ug/kg	11	-		
Carbon disulfide	-			-			5	UJ ug/kg	5	-		
1,1-Dichloroethene	-			-			5	UJ ug/kg	5	-		
1,1-Dichloroethane	-			-			5	UJ ug/kg	5	-		
1,2-Dichloroethene (total)	-			-			5	UJ ug/kg	5	-		
Chloroform	-			-			5	UJ ug/kg	5	-		
1,2-Dichloroethane	-			-			5	UJ ug/kg	5	-		
2-Butanone	-			-			11	UJ ug/kg	5	-		
1,1,1-Trichloroethane	-			-			5	UJ ug/kg	5	-		
Carbon tetrachloride	-			-			5	UJ ug/kg	5	-		
Vinyl acetate	-			-			11	UJ ug/kg	11	-		
Bromodichloromethane	-			-			5	UJ ug/kg	5	-		
1,2-Dichloropropane	-			-			5	UJ ug/kg	5	-		
cis-1,3-Dichloropropene	-			-			5	UJ ug/kg	5	-		
Trichloroethene	-			-			5	UJ ug/kg	5	-		
Dibromochloromethane	-			-			5	UJ ug/kg	5	-		
1,1,2-Trichloroethane	-			-			5	UJ ug/kg	5	-		
Benzene	-			-			5	UJ ug/kg	5	-		
trans-1,3-Dichloropropene	-			-			5	UJ ug/kg	5	-		
Bromoform	-			-			5	UJ ug/kg	5	-		
4-Methyl-2-pentanone	-			-			11	UJ ug/kg	11	-		
2-Hexanone	-			-			11	UJ ug/kg	11	-		
Tetrachloroethene	-			-			5	UJ ug/kg	5	-		
Toluene	-			-			5	UJ ug/kg	5	-		
1,1,2,2-Tetrachloroethane	-			-			5	UJ ug/kg	5	-		
Chlorobenzene	-			-			5	UJ ug/kg	5	-		
Ethyl Benzene	-			-			5	UJ ug/kg	5	-		
Styrene	-			-			5	UJ ug/kg	5	-		
Xylenes (total)	-			-			5	UJ ug/kg	5	-		
CLP SEMIVOLATILES												
Phenol	-			380	U ug/kg	330	350	R ug/kg	330	-		
bis(2-Chloroethyl) ether	-			380	U ug/kg	330	350	R ug/kg	330	-		
2-Chlorophenol	-			380	U ug/kg	330	350	R ug/kg	330	-		
1,3-Dichlorobenzene	-			380	U ug/kg	330	350	R ug/kg	330	-		

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31624007			20336007RX			20336008			31624008		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	BOR3-1-2			BOR3-1-2_RX			BOR3-2-1			BOR3-2-1		
Collect Date:	04-DEC-91			04-DEC-91			04-DEC-91			04-DEC-91		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
1,4-Dichlorobenzene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Benzyl Alcohol	-			-			-			-		
1,2-Dichlorobenzene	-			380	U ug/kg	330	350	R ug/kg	330	-		
2-Methylphenol	-			380	U ug/kg	330	350	R ug/kg	330	-		
bis(2-Chloroisopropyl) ether	-			380	U ug/kg	380	-			-		
4-Methylphenol	-			380	UJ ug/kg	330	350	R ug/kg	330	-		
N-Nitroso-di-n-propylamine	-			380	U ug/kg	330	350	R ug/kg	330	-		
Hexachloroethane	-			380	U ug/kg	330	350	R ug/kg	330	-		
Nitrobenzene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Isophorone	-			380	U ug/kg	330	350	R ug/kg	330	-		
2-Nitrophenol	-			380	U ug/kg	330	350	R ug/kg	330	-		
2,4-Dimethylphenol	-			380	U ug/kg	330	350	R ug/kg	330	-		
Benzoic Acid	-			1900	U ug/kg	1600	1700	R ug/kg	1600	-		
bis(2-Chloroethoxy) methane	-			380	U ug/kg	330	350	R ug/kg	330	-		
2,4-Dichlorophenol	-			380	U ug/kg	330	350	R ug/kg	330	-		
1,2,4-Trichlorobenzene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Naphthalene	-			380	U ug/kg	330	350	R ug/kg	330	-		
4-Chloroaniline	-			380	U ug/kg	330	350	R ug/kg	330	-		
Hexachlorobutadiene	-			380	U ug/kg	330	350	R ug/kg	330	-		
4-Chloro-3-methylphenol	-			380	U ug/kg	330	350	R ug/kg	330	-		
2-Methylnaphthalene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Hexachlorocyclopentadiene	-			380	U ug/kg	330	350	R ug/kg	330	-		
2,4,6-Trichlorophenol	-			380	U ug/kg	330	350	R ug/kg	330	-		
2,4,5-Trichlorophenol	-			1900	U ug/kg	1600	1700	R ug/kg	1600	-		
2-Chloronaphthalene	-			380	U ug/kg	330	350	R ug/kg	330	-		
2-Nitroaniline	-			1900	U ug/kg	1600	1700	R ug/kg	1600	-		
Dimethylphthalate	-			380	U ug/kg	330	350	R ug/kg	330	-		
Acenaphthylene	-			380	U ug/kg	330	350	R ug/kg	330	-		
2,6-Dinitrotoluene	-			380	U ug/kg	330	350	R ug/kg	330	-		
3-Nitroaniline	-			1900	U ug/kg	1600	1700	R ug/kg	1600	-		
Acenaphthene	-			380	U ug/kg	330	350	R ug/kg	330	-		
2,4-Dinitrophenol	-			1900	U ug/kg	1600	1700	R ug/kg	1600	-		
4-Nitrophenol	-			1900	U ug/kg	1600	1700	R ug/kg	1600	-		
Dibenzofuran	-			380	U ug/kg	330	350	R ug/kg	330	-		
2,4-Dinitrotoluene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Diethylphthalate	-			380	U ug/kg	330	350	R ug/kg	330	-		
4-Chlorophenyl-phenylether	-			380	U ug/kg	330	350	R ug/kg	330	-		
Fluorene	-			380	U ug/kg	330	350	R ug/kg	330	-		
4-Nitroaniline	-			1900	U ug/kg	1600	1700	R ug/kg	1600	-		
4,6-Dinitro-2-methylphenol	-			1900	U ug/kg	1600	1700	R ug/kg	1600	-		
N-Nitrosodiphenylamine (1)	-			380	U ug/kg	330	350	R ug/kg	330	-		
4-Bromophenyl-phenylether	-			380	U ug/kg	330	350	R ug/kg	330	-		
Hexachlorobenzene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Pentachlorophenol	-			1900	U ug/kg	1600	1700	R ug/kg	1600	-		
Phenanthrene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Anthracene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Di-n-butylphthalate	-			380	U ug/kg	330	350	R ug/kg	330	-		
Fluoranthene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Pyrene	-			380	U ug/kg	330	350	R ug/kg	330	-		
Butylbenzylphthalate	-			380	U ug/kg	330	350	R ug/kg	330	-		
3,3'-Dichlorobenzidine	-			-			-			-		
Benzo (a) anthracene	-			380	U ug/kg	330	350	R ug/kg	330	-		

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:		31624007				20336007RX				20336008				31624008					
Site		CECIL				CECIL				CECIL				CECIL					
Locator		BOR3-1-2				BOR3-1-2_RX				BOR3-2-1				BOR3-2-1					
Collect Date:		04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91					
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL			
Chrysene	-				380	U	ug/kg	330	350	R	ug/kg	330	-						
bis(2-Ethylhexyl) phthalate	-				380	U	ug/kg	330	160	R	ug/kg	330	-						
Di-n-octylphthalate	-				380	U	ug/kg	330	350	R	ug/kg	330	-						
Benzo (b) fluoranthene	-				380	U	ug/kg	330	350	R	ug/kg	330	-						
Benzo (k) fluoranthene	-				380	U	ug/kg	330	350	R	ug/kg	330	-						
Benzo (a) pyrene	-				380	U	ug/kg	330	350	R	ug/kg	330	-						
Indeno (1,2,3-cd) pyrene	-				380	U	ug/kg	330	350	R	ug/kg	330	-						
Dibenz (a,h) anthracene	-				380	U	ug/kg	330	350	R	ug/kg	330	-						
Benzo (g,h,i) perylene	-				380	U	ug/kg	330	350	R	ug/kg	330	-						
CLP PESTICIDES/PCBS																			
alpha-BHC	-				-				8.6	U	ug/kg	8.6	-						
beta-BHC	-				-				8.6	U	ug/kg	8.6	-						
delta-BHC	-				-				8.6	U	ug/kg	8.6	-						
gamma-BHC (Lindane)	-				-				8.6	U	ug/kg	8.6	-						
Heptachlor	-				-				8.6	U	ug/kg	8.6	-						
Aldrin	-				-				8.6	U	ug/kg	8.6	-						
Heptachlor epoxide	-				-				8.6	U	ug/kg	8.6	-						
Endosulfan I	-				-				8.6	U	ug/kg	8.6	-						
Dieldrin	-				-				17	U	ug/kg	17	-						
4,4'-DDE	-				-				-				-						
Endrin	-				-				17	U	ug/kg	17	-						
Endosulfan II	-				-				17	U	ug/kg	17	-						
4,4'-DDD	-				-				-				-						
Endosulfan sulfate	-				-				17	U	ug/kg	17	-						
4,4'-DDT	-				-				-				-						
Methoxychlor	-				-				86	U	ug/kg	86	-						
Endrin ketone	-				-				17	U	ug/kg	17	-						
alpha Chlordane	-				-				86	U	ug/kg	86	-						
gamma-Chlordane	-				-				86	U	ug/kg	86	-						
Toxaphene	-				-				170	U	ug/kg	170	-						
Aroclor-1016	-				-				86	U	ug/kg	86	-						
Aroclor-1221	-				-				86	U	ug/kg	86	-						
Aroclor-1232	-				-				86	U	ug/kg	86	-						
Aroclor-1242	-				-				86	U	ug/kg	86	-						
Aroclor-1248	-				-				86	U	ug/kg	86	-						
Aroclor-1254	-				-				170	U	ug/kg	170	-						
Aroclor-1260	-				-				170	U	ug/kg	170	-						
CLP METALS AND CYANIDE																			
Aluminum	547.98		mg/kg	40	-				-				1714.78		mg/kg	40			
Antimony	2.7	UJ	mg/kg	12	-				-				2.4	UJ	mg/kg	12			
Arsenic	.14	J	mg/kg	2	-				-				.13	J	mg/kg	2			
Barium	.51	J	mg/kg	40	-				-				2	J	mg/kg	40			
Beryllium	.047	UJ	mg/kg	1	-				-				.043	UJ	mg/kg	1			
Cadmium	.31	UJ	mg/kg	1	-				-				.28	UJ	mg/kg	1			
Calcium	271	J	mg/kg	1000	-				-				122	J	mg/kg	1000			
Chromium	1.6	J	mg/kg	2	-				-				1.9	J	mg/kg	2			
Cobalt	.69	UJ	mg/kg	10	-				-				.63	UJ	mg/kg	10			
Copper	.4	U	mg/kg	5	-				-				.37	U	mg/kg	5			
Iron	143		mg/kg	20	-				-				401		mg/kg	20			
Lead	1.1		mg/kg	1	-				-				1.3		mg/kg	1			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31624007				20336007RX				20336008				31624008			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-1-2				BOR3-1-2_RX				BOR3-2-1				BOR3-2-1			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Magnesium	18.7	J	mg/kg	1000	-				-				45.1	J	mg/kg	1000
Manganese	1	J	mg/kg	3	-				-				3.9	J	mg/kg	3
Mercury	.04	J	mg/kg	.1	-				-				.03	U	mg/kg	.1
Nickel	1.4	U	mg/kg	8	-				-				1.3	U	mg/kg	8
Potassium	111	J	mg/kg	1000	-				-				67.3	J	mg/kg	1000
Selenium	.095	UJ	mg/kg	1	-				-				.086	UJ	mg/kg	1
Silver	.55	J	mg/kg	2	-				-				.39	U	mg/kg	2
Sodium	123	J	mg/kg	1000	-				-				138	J	mg/kg	1000
Thallium	.19	U	mg/kg	2	-				-				.17	U	mg/kg	2
Vanadium	.56	UJ	mg/kg	10	-				-				1.3	UJ	mg/kg	10
Zinc	.75	UJ	mg/kg	4	-				-				1.1	UJ	mg/kg	4
Cyanide	.59	U	mg/kg	2	-				-				.54	U	mg/kg	2
TOC	-				-				-				-			
Total organic carbon																

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336009			31624009			20336010			31624010		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	BOR3-2-2			BOR3-2-2			BOR3-3-1			BOR3-3-1		
Collect Date:	04-DEC-91			04-DEC-91			04-DEC-91			04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS																
Chloromethane	12	U	ug/kg	12				-	11	U	ug/kg	11				-
Bromomethane	12	U	ug/kg	12				-	11	U	ug/kg	11				-
Vinyl Chloride	12	U	ug/kg	12				-	11	U	ug/kg	11				-
Chloroethane	12	U	ug/kg	12				-	11	U	ug/kg	11				-
Methylene Chloride	6	U	ug/kg	6				-	13	U	ug/kg	6				-
Acetone	12	U	ug/kg	12				-	11	U	ug/kg	11				-
Carbon disulfide	6	U	ug/kg	6				-	6	U	ug/kg	6				-
1,1-Dichloroethene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
1,1-Dichloroethane	6	U	ug/kg	6				-	6	U	ug/kg	6				-
1,2-Dichloroethene (total)	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Chloroform	6	U	ug/kg	6				-	6	U	ug/kg	6				-
1,2-Dichloroethane	6	U	ug/kg	6				-	6	U	ug/kg	6				-
2-Butanone	12	U	ug/kg	12				-	11	U	ug/kg	11				-
1,1,1-Trichloroethane	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Carbon tetrachloride	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Vinyl acetate	12	U	ug/kg	12				-	11	U	ug/kg	11				-
Bromodichloromethane	6	U	ug/kg	6				-	6	U	ug/kg	6				-
1,2-Dichloropropane	6	U	ug/kg	6				-	6	U	ug/kg	6				-
cis-1,3-Dichloropropene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Trichloroethene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Dibromochloromethane	6	U	ug/kg	6				-	6	U	ug/kg	6				-
1,1,2-Trichloroethane	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Benzene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
trans-1,3-Dichloropropene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Bromoform	6	U	ug/kg	6				-	11	U	ug/kg	11				-
4-Methyl-2-pentanone	12	U	ug/kg	12				-	11	U	ug/kg	11				-
2-Hexanone	12	U	ug/kg	12				-	6	U	ug/kg	6				-
Tetrachloroethene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Toluene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Chlorobenzene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Ethyl Benzene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Styrene	6	U	ug/kg	6				-	6	U	ug/kg	6				-
Xylenes (total)	6	U	ug/kg	6				-	6	U	ug/kg	6				-
CLP SEMIVOLATILES																
Phenol	390	U	ug/kg	330				-	370	U	ug/kg	330				-
bis(2-Chloroethyl) ether	390	U	ug/kg	330				-	370	U	ug/kg	330				-
2-Chlorophenol	390	U	ug/kg	330				-	370	U	ug/kg	330				-
1,3-Dichlorobenzene	390	U	ug/kg	330				-	370	U	ug/kg	330				-

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336009				31624009				20336010				31624010			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-2-2				BOR3-2-2				BOR3-3-1				BOR3-3-1			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,4-Dichlorobenzene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Benzyl Alcohol	-				-				-				-			
1,2-Dichlorobenzene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2-Methylphenol	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
bis(2-Chloroisopropyl) ether	-				-				-				-			
4-Methylphenol	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
N-Nitroso-di-n-propylamine	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Hexachloroethane	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Nitrobenzene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Isophorone	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2-Nitrophenol	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2,4-Dimethylphenol	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Benzoic Acid	1900	U	ug/kg	1600	-				1800	U	ug/kg	1600	-			
bis(2-Chloroethoxy) methane	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2,4-Dichlorophenol	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
1,2,4-Trichlorobenzene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Naphthalene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
4-Chloroaniline	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Hexachlorobutadiene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
4-Chloro-3-methylphenol	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2-Methylnaphthalene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Hexachlorocyclopentadiene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2,4,6-Trichlorophenol	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2,4,5-Trichlorophenol	1900	U	ug/kg	1600	-				1800	U	ug/kg	1600	-			
2-Chloronaphthalene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2-Nitroaniline	1900	U	ug/kg	1600	-				1800	U	ug/kg	1600	-			
Dimethylphthalate	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Acenaphthylene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2,6-Dinitrotoluene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
3-Nitroaniline	1900	U	ug/kg	1600	-				1800	U	ug/kg	1600	-			
Acenaphthene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2,4-Dinitrophenol	1900	U	ug/kg	1600	-				1800	U	ug/kg	1600	-			
4-Nitrophenol	1900	U	ug/kg	1600	-				1800	U	ug/kg	1600	-			
Dibenzofuran	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
2,4-Dinitrotoluene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Diethylphthalate	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
4-Chlorophenyl-phenylether	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Fluorene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
4-Nitroaniline	1900	U	ug/kg	1600	-				1800	U	ug/kg	1600	-			
4,6-Dinitro-2-methylphenol	1900	U	ug/kg	1600	-				1800	U	ug/kg	1600	-			
N-Nitrosodiphenylamine (1)	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
4-Bromophenyl-phenylether	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Hexachlorobenzene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Pentachlorophenol	1900	U	ug/kg	1600	-				1800	U	ug/kg	1600	-			
Phenanthrene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Anthracene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Di-n-butylphthalate	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Fluoranthene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Pyrene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Butylbenzylphthalate	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
3,3'-Dichlorobenzidine	-				-				-				-			
Benzo (a) anthracene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336009				31624009				20336010				31624010			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-2-2				BOR3-2-2				BOR3-3-1				BOR3-3-1			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Chrysene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
bis(2-Ethylhexyl) phthalate	660		ug/kg	330	-				72	J	ug/kg	330	-			
Di-n-octylphthalate	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Benzo (b) fluoranthene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Benzo (k) fluoranthene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Benzo (a) pyrene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Indeno (1,2,3-cd) pyrene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Dibenz (a,h) anthracene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
Benzo (g,h,i) perylene	390	U	ug/kg	330	-				370	U	ug/kg	330	-			
CLP PESTICIDES/PCBS																
alpha-BHC	9.4	U	ug/kg	9.4	-				9	U	ug/kg	9	-			
beta-BHC	9.4	U	ug/kg	9.4	-				9	U	ug/kg	9	-			
delta-BHC	9.4	U	ug/kg	9.4	-				9	U	ug/kg	9	-			
gamma-BHC (Lindane)	9.4	U	ug/kg	9.4	-				9	U	ug/kg	9	-			
Heptachlor	9.4	U	ug/kg	9.4	-				9	U	ug/kg	9	-			
Aldrin	9.4	U	ug/kg	9.4	-				9	U	ug/kg	9	-			
Heptachlor epoxide	9.4	U	ug/kg	9.4	-				9	U	ug/kg	9	-			
Endosulfan I	9.4	U	ug/kg	9.4	-				9	U	ug/kg	9	-			
Dieldrin	19	U	ug/kg	19	-				18	U	ug/kg	18	-			
4,4'-DDE	-				-				-				-			
Endrin	19	U	ug/kg	19	-				18	U	ug/kg	18	-			
Endosulfan II	19	U	ug/kg	19	-				18	U	ug/kg	18	-			
4,4'-DDD	-				-				-				-			
Endosulfan sulfate	19	U	ug/kg	19	-				18	U	ug/kg	18	-			
4,4'-DDT	-				-				-				-			
Methoxychlor	94	U	ug/kg	94	-				90	U	ug/kg	90	-			
Endrin ketone	19	U	ug/kg	19	-				18	U	ug/kg	18	-			
alpha Chlordane	94	U	ug/kg	94	-				90	U	ug/kg	90	-			
gamma-Chlordane	94	U	ug/kg	94	-				90	U	ug/kg	90	-			
Toxaphene	190	U	ug/kg	190	-				180	U	ug/kg	180	-			
Aroclor-1016	94	U	ug/kg	94	-				90	U	ug/kg	90	-			
Aroclor-1221	94	U	ug/kg	94	-				90	U	ug/kg	90	-			
Aroclor-1232	94	U	ug/kg	94	-				90	U	ug/kg	90	-			
Aroclor-1242	94	U	ug/kg	94	-				90	U	ug/kg	90	-			
Aroclor-1248	94	U	ug/kg	94	-				90	U	ug/kg	90	-			
Aroclor-1254	190	U	ug/kg	190	-				180	U	ug/kg	180	-			
Aroclor-1260	190	U	ug/kg	190	-				180	U	ug/kg	180	-			
CLP METALS AND CYANIDE																
Aluminum	-				869.52		mg/kg	40	-				1540		mg/kg	40
Antimony	-				2.7	UJ	mg/kg	12	-				2.5	UJ	mg/kg	12
Arsenic	-				.094	J	mg/kg	2	-				.18	J	mg/kg	2
Barium	-				1.1	J	mg/kg	40	-				5.4	J	mg/kg	40
Beryllium	-				.047	UJ	mg/kg	1	-				.045	UJ	mg/kg	1
Cadmium	-				.31	UJ	mg/kg	1	-				.029	UJ	mg/kg	1
Calcium	-				103	J	mg/kg	1000	-				281	J	mg/kg	1000
Chromium	-				2.1	J	mg/kg	2	-				3.9		mg/kg	2
Cobalt	-				.68	UJ	mg/kg	10	-				.65	UJ	mg/kg	10
Copper	-				.4	U	mg/kg	5	-				6.2		mg/kg	5
Iron	-				190		mg/kg	20	-				537		mg/kg	20
Lead	-				.89		mg/kg	1	-				3.4		mg/kg	1

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:		20336009				31624009				20336010				31624010		
Site		CECIL				CECIL				CECIL				CECIL		
Locator		BOR3-2-2				BOR3-2-2				BOR3-3-1				BOR3-3-1		
Collect Date:		04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Magnesium	-				27.5	J	mg/kg	1000	-				45.9	J	mg/kg	1000
Manganese	-				2.1	J	mg/kg	3	-				10.5	J	mg/kg	3
Mercury	-				.033	U	mg/kg	.1	-				.044	J	mg/kg	.1
Nickel	-				1.4	U	mg/kg	8	-				1.8	UJ	mg/kg	8
Potassium	-				99.4	J	mg/kg	1000	-				61.5	U	mg/kg	1000
Selenium	-				.094	UJ	mg/kg	1	-				.09	UJ	mg/kg	1
Silver	-				.42	U	mg/kg	2	-				.72	J	mg/kg	2
Sodium	-				110	J	mg/kg	1000	-				128	J	mg/kg	1000
Thallium	-				.19	U	mg/kg	2	-				.18	U	mg/kg	2
Vanadium	-				.74	UJ	mg/kg	10	-				1.7	UJ	mg/kg	10
Zinc	-				1.4	UJ	mg/kg	4	-				12.5		mg/kg	4
Cyanide	-				.59	U	mg/kg	2	-				.56	U	mg/kg	2
TOC																
Total organic carbon	-				-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336011			31624011			20336012			31624012		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	BOR3-3-2			BOR3-3-2			BOR3-4-1			BOR3-4-1		
Collect Date:	04-DEC-91			04-DEC-91			04-DEC-91			04-DEC-91		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP VOLATILE COMPOUNDS												
Chloromethane	60	U ug/kg	60	-			11	U ug/kg	11	-		
Bromomethane	60	U ug/kg	60	-			11	U ug/kg	11	-		
Vinyl Chloride	60	U ug/kg	60	-			11	U ug/kg	11	-		
Chloroethane	60	U ug/kg	60	-			11	U ug/kg	11	-		
Methylene Chloride	100	U ug/kg	30	-			25	U ug/kg	5	-		
Acetone	68	U ug/kg	60	-			11	U ug/kg	11	-		
Carbon disulfide	30	U ug/kg	30	-			2	J ug/kg	5	-		
1,1-Dichloroethene	30	U ug/kg	30	-			5	U ug/kg	5	-		
1,1-Dichloroethane	30	U ug/kg	30	-			5	U ug/kg	5	-		
1,2-Dichloroethene (total)	30	U ug/kg	30	-			5	U ug/kg	5	-		
Chloroform	30	U ug/kg	30	-			5	U ug/kg	5	-		
1,2-Dichloroethane	30	U ug/kg	30	-			5	U ug/kg	5	-		
2-Butanone	60	U ug/kg	60	-			11	U ug/kg	11	-		
1,1,1-Trichloroethane	30	U ug/kg	30	-			5	U ug/kg	5	-		
Carbon tetrachloride	30	U ug/kg	30	-			5	U ug/kg	5	-		
Vinyl acetate	60	U ug/kg	60	-			11	U ug/kg	11	-		
Bromodichloromethane	30	U ug/kg	30	-			5	U ug/kg	5	-		
1,2-Dichloropropane	30	U ug/kg	30	-			5	U ug/kg	5	-		
cis-1,3-Dichloropropene	30	U ug/kg	30	-			5	U ug/kg	5	-		
Trichloroethene	21	J ug/kg	30	-			5	U ug/kg	5	-		
Dibromochloromethane	30	U ug/kg	30	-			5	U ug/kg	5	-		
1,1,2-Trichloroethane	30	U ug/kg	30	-			5	U ug/kg	5	-		
Benzene	30	U ug/kg	30	-			5	U ug/kg	5	-		
trans-1,3-Dichloropropene	30	U ug/kg	30	-			5	U ug/kg	5	-		
Bromoform	30	U ug/kg	30	-			5	U ug/kg	5	-		
4-Methyl-2-pentanone	60	U ug/kg	60	-			11	U ug/kg	11	-		
2-Hexanone	60	U ug/kg	60	-			11	U ug/kg	11	-		
Tetrachloroethene	30	U ug/kg	30	-			5	U ug/kg	5	-		
Toluene	30	U ug/kg	30	-			5	U ug/kg	5	-		
1,1,2,2-Tetrachloroethane	30	U ug/kg	30	-			5	U ug/kg	5	-		
Chlorobenzene	30	U ug/kg	30	-			5	U ug/kg	5	-		
Ethyl Benzene	30	U ug/kg	30	-			5	U ug/kg	5	-		
Styrene	30	U ug/kg	30	-			5	U ug/kg	5	-		
Xylenes (total)	21	J ug/kg	30	-			3	J ug/kg	5	-		
CLP SEMIVOLATILES												
Phenol	380	U ug/kg	330	-			350	U ug/kg	330	-		
bis(2-Chloroethyl) ether	380	U ug/kg	330	-			350	U ug/kg	330	-		
2-Chlorophenol	380	U ug/kg	330	-			350	U ug/kg	330	-		
1,3-Dichlorobenzene	380	U ug/kg	330	-			350	U ug/kg	330	-		

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336011				31624011				20336012				31624012			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-3-2				BOR3-3-2				BOR3-4-1				BOR3-4-1			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,4-Dichlorobenzene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Benzyl Alcohol	-				-				-				-			
1,2-Dichlorobenzene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2-Methylphenol	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
bis(2-Chloroisopropyl) ether	-				-				-				-			
4-Methylphenol	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
N-Nitroso-di-n-propylamine	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Hexachloroethane	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Nitrobenzene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Isophorone	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2-Nitrophenol	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2,4-Dimethylphenol	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Benzoic Acid	1900	U	ug/kg	1600	-				1700	U	ug/kg	1600	-			
bis(2-Chloroethoxy) methane	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2,4-Dichlorophenol	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
1,2,4-Trichlorobenzene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Naphthalene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
4-Chloroaniline	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Hexachlorobutadiene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
4-Chloro-3-methylphenol	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2-Methylnaphthalene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Hexachlorocyclopentadiene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2,4,6-Trichlorophenol	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2,4,5-Trichlorophenol	1900	U	ug/kg	1600	-				1700	U	ug/kg	1600	-			
2-Chloronaphthalene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2-Nitroaniline	1900	U	ug/kg	1600	-				1700	U	ug/kg	1600	-			
Dimethylphthalate	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Acenaphthylene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2,6-Dinitrotoluene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
3-Nitroaniline	1900	U	ug/kg	1600	-				1700	U	ug/kg	1600	-			
Acenaphthene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2,4-Dinitrophenol	1900	U	ug/kg	1600	-				1700	U	ug/kg	1600	-			
4-Nitrophenol	1900	U	ug/kg	1600	-				1700	U	ug/kg	1600	-			
Dibenzofuran	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
2,4-Dinitrotoluene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Diethylphthalate	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
4-Chlorophenyl-phenylether	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Fluorene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
4-Nitroaniline	1900	U	ug/kg	1600	-				1700	U	ug/kg	1600	-			
4,6-Dinitro-2-methylphenol	1900	U	ug/kg	1600	-				1700	U	ug/kg	1600	-			
N-Nitrosodiphenylamine (1)	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
4-Bromophenyl-phenylether	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Hexachlorobenzene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Pentachlorophenol	1900	U	ug/kg	1600	-				1700	U	ug/kg	1600	-			
Phenanthrene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Anthracene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Di-n-butylphthalate	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Fluoranthene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Pyrene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Butylbenzylphthalate	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
3,3'-Dichlorobenzidine	-				-				-				-			
Benzo (a) anthracene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336011				31624011				20336012				31624012			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-3-2				BOR3-3-2				BOR3-4-1				BOR3-4-1			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Chrysene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
bis(2-Ethylhexyl) phthalate	260	J	ug/kg	330	-				350	U	ug/kg	330	-			
Di-n-octylphthalate	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Benzo (b) fluoranthene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Benzo (k) fluoranthene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Benzo (a) pyrene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Indeno (1,2,3-cd) pyrene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Dibenz (a,h) anthracene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
Benzo (g,h,i) perylene	380	U	ug/kg	330	-				350	U	ug/kg	330	-			
CLP PESTICIDES/PCBS																
alpha-BHC	9.3	U	ug/kg	9.3	-				8.6	U	ug/kg	8.6	-			
beta-BHC	9.3	U	ug/kg	9.3	-				8.6	U	ug/kg	8.6	-			
delta-BHC	9.3	U	ug/kg	9.3	-				8.6	U	ug/kg	8.6	-			
gamma-BHC (Lindane)	9.3	U	ug/kg	9.3	-				8.6	U	ug/kg	8.6	-			
Heptachlor	9.3	U	ug/kg	9.3	-				8.6	U	ug/kg	8.6	-			
Aldrin	9.3	U	ug/kg	9.3	-				8.6	U	ug/kg	8.6	-			
Heptachlor epoxide	9.3	U	ug/kg	9.3	-				8.6	U	ug/kg	8.6	-			
Endosulfan I	9.3	U	ug/kg	9.3	-				8.6	U	ug/kg	8.6	-			
Dieldrin	19	U	ug/kg	19	-				17	U	ug/kg	17	-			
4,4'-DDE	-				-				-				-			
Endrin	19	U	ug/kg	19	-				17	U	ug/kg	17	-			
Endosulfan II	19	U	ug/kg	19	-				17	U	ug/kg	17	-			
4,4'-DDD	-				-				-				-			
Endosulfan sulfate	19	U	ug/kg	19	-				17	U	ug/kg	17	-			
4,4'-DDT	-				-				-				-			
Methoxychlor	93	U	ug/kg	93	-				86	U	ug/kg	86	-			
Endrin ketone	19	U	ug/kg	19	-				17	U	ug/kg	17	-			
alpha Chlordane	93	U	ug/kg	93	-				86	U	ug/kg	86	-			
gamma-Chlordane	93	U	ug/kg	93	-				86	U	ug/kg	86	-			
Toxaphene	190	U	ug/kg	190	-				170	U	ug/kg	170	-			
Aroclor-1016	93	U	ug/kg	93	-				86	U	ug/kg	86	-			
Aroclor-1221	93	U	ug/kg	93	-				86	U	ug/kg	86	-			
Aroclor-1232	93	U	ug/kg	93	-				86	U	ug/kg	86	-			
Aroclor-1242	93	U	ug/kg	93	-				86	U	ug/kg	86	-			
Aroclor-1248	93	U	ug/kg	93	-				86	U	ug/kg	86	-			
Aroclor-1254	190	U	ug/kg	190	-				170	U	ug/kg	170	-			
Aroclor-1260	190	U	ug/kg	190	-				170	U	ug/kg	170	-			
CLP METALS AND CYANIDE																
Aluminum	-				617		mg/kg	40	-				1400		mg/kg	40
Antimony	-				2.7	UJ	mg/kg	12	-				2.5	J	mg/kg	12
Arsenic	-				.094	J	mg/kg	2	-				.13	J	mg/kg	2
Barium	-				2.4	J	mg/kg	40	-				2.3	J	mg/kg	40
Beryllium	-				.047	UJ	mg/kg	1	-				.043	UJ	mg/kg	1
Cadmium	-				.33	J	mg/kg	1	-				.28	UJ	mg/kg	1
Calcium	-				116	J	mg/kg	1000	-				182	J	mg/kg	1000
Chromium	-				3.3		mg/kg	2	-				1.6	J	mg/kg	2
Cobalt	-				.68	UJ	mg/kg	10	-				.62	UJ	mg/kg	10
Copper	-				1.4	J	mg/kg	5	-				.51	J	mg/kg	5
Iron	-				161		mg/kg	20	-				402		mg/kg	20
Lead	-				3.5		mg/kg	1	-				1.5		mg/kg	1

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:		20336011				31624011				20336012				31624012		
Site		CECIL				CECIL				CECIL				CECIL		
Locator		BOR3-3-2				BOR3-3-2				BOR3-4-1				BOR3-4-1		
Collect Date:		04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Magnesium		-			26.2	J	mg/kg	1000		-			33.6	J	mg/kg	1000
Manganese		-			5.4	J	mg/kg	3		-			2.6	J	mg/kg	3
Mercury		-			.039	J	mg/kg	.1		-			.03	U	mg/kg	.1
Nickel		-			2.7	UJ	mg/kg	8		-			1.3	U	mg/kg	8
Potassium		-			101	J	mg/kg	1000		-			94.2	J	mg/kg	1000
Selenium		-			.094	UJ	mg/kg	1		-			.086	UJ	mg/kg	1
Silver		-			.42	U	mg/kg	2		-			.39	U	mg/kg	2
Sodium		-			119	J	mg/kg	1000		-			118	J	mg/kg	1000
Thallium		-			.19	U	mg/kg	2		-			.17	U	mg/kg	2
Vanadium		-			.84	UJ	mg/kg	10		-			1.3	UJ	mg/kg	10
Zinc		-			5	J	mg/kg	4		-			1.5	UJ	mg/kg	4
Cyanide		-			.59	U	mg/kg	2		-			.54	U	mg/kg	2
TOC																
Total organic carbon		-			-					-			-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336013				20337001				31625001				20337002			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-4-2				BOR3-5-1				BOR3-5-1				BOR3-5-2			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS																
Chloromethane	11	U	ug/kg	11	11	U	ug/kg	11	-				12	U	ug/kg	12
Bromomethane	11	U	ug/kg	11	11	U	ug/kg	11	-				12	U	ug/kg	12
Vinyl Chloride	11	U	ug/kg	11	11	U	ug/kg	11	-				12	U	ug/kg	12
Chloroethane	11	U	ug/kg	11	11	U	ug/kg	11	-				12	U	ug/kg	12
Methylene Chloride	10	U	ug/kg	6	13	U	ug/kg	5	-				39	U	ug/kg	6
Acetone	11	U	ug/kg	11	11	U	ug/kg	11	-				14	U	ug/kg	12
Carbon disulfide	6	U	ug/kg	6	5	U	ug/kg	5	-				2	J	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	11	U	ug/kg	11	-				12	U	ug/kg	12
1,1,1-Trichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Vinyl acetate	11	U	ug/kg	11	11	U	ug/kg	11	-				12	U	ug/kg	12
Bromodichloromethane	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Benzene	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	11	U	ug/kg	11	-				12	U	ug/kg	12
2-Hexanone	11	U	ug/kg	11	11	U	ug/kg	11	-				12	U	ug/kg	12
Tetrachloroethene	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Toluene	6	U	ug/kg	6	1	J	ug/kg	5	-				2	J	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Ethyl Benzene	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Styrene	6	U	ug/kg	6	5	U	ug/kg	5	-				6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	4	J	ug/kg	5	-				7		ug/kg	6
CLP SEMIVOLATILES																
Phenol	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
bis(2-Chloroethyl) ether	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2-Chlorophenol	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
1,3-Dichlorobenzene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336013				20337001				31625001				20337002			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-4-2				BOR3-5-1				BOR3-5-1				BOR3-5-2			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,4-Dichlorobenzene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Benzyl Alcohol	-				-				-				-			
1,2-Dichlorobenzene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2-Methylphenol	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
bis(2-Chloroisopropyl) ether	-				-				-				-			
4-Methylphenol	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
N-Nitroso-di-n-propylamine	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Hexachloroethane	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Nitrobenzene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Isophorone	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2-Nitrophenol	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2,4-Dimethylphenol	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Benzoic Acid	19000	U	ug/kg	16000	1700	UJ	ug/kg	1600	-				7500	UJ	ug/kg	7500
bis(2-Chloroethoxy) methane	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2,4-Dichlorophenol	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
1,2,4-Trichlorobenzene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Naphthalene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
4-Chloroaniline	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Hexachlorobutadiene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
4-Chloro-3-methylphenol	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2-Methylnaphthalene	3800	U	ug/kg	3300	350	UJ	ug/kg	330	-				1600	UJ	ug/kg	1600
Hexachlorocyclopentadiene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2,4,6-Trichlorophenol	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2,4,5-Trichlorophenol	19000	U	ug/kg	16000	1700	U	ug/kg	1600	-				7500	U	ug/kg	7500
2-Chloronaphthalene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2-Nitroaniline	19000	U	ug/kg	16000	1700	U	ug/kg	1600	-				7500	U	ug/kg	7500
Dimethylphthalate	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Acenaphthylene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2,6-Dinitrotoluene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
3-Nitroaniline	19000	U	ug/kg	16000	1700	U	ug/kg	1600	-				7500	U	ug/kg	7500
Acenaphthene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2,4-Dinitrophenol	19000	U	ug/kg	16000	1700	U	ug/kg	1600	-				7500	U	ug/kg	7500
4-Nitrophenol	19000	U	ug/kg	16000	1700	U	ug/kg	1600	-				7500	U	ug/kg	7500
Dibenzofuran	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
2,4-Dinitrotoluene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Diethylphthalate	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
4-Chlorophenyl-phenylether	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Fluorene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
4-Nitroaniline	19000	U	ug/kg	16000	1700	U	ug/kg	1600	-				7500	U	ug/kg	7500
4,6-Dinitro-2-methylphenol	19000	U	ug/kg	16000	1700	U	ug/kg	1600	-				7500	U	ug/kg	7500
N-Nitrosodiphenylamine (1)	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
4-Bromophenyl-phenylether	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Hexachlorobenzene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Pentachlorophenol	19000	U	ug/kg	16000	1700	U	ug/kg	1600	-				7500	U	ug/kg	7500
Phenanthrene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Anthracene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Di-n-butylphthalate	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Fluoranthene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Pyrene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Butylbenzylphthalate	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
3,3'-Dichlorobenzidine	-				-				-				-			
Benzo (a) anthracene	3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

	Lab Sample Number:	20336013				20337001				31625001				20337002			
	Site	CECIL				CECIL				CECIL				CECIL			
	Locator	BOR3-4-2				BOR3-5-1				BOR3-5-1				BOR3-5-2			
	Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Chrysene		3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
bis(2-Ethylhexyl) phthalate		1400	J	ug/kg	3300	42	J	ug/kg	330	-				1600	U	ug/kg	1600
Di-n-octylphthalate		3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Benzo (b) fluoranthene		3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Benzo (k) fluoranthene		3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Benzo (a) pyrene		3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Indeno (1,2,3-cd) pyrene		3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Dibenz (a,h) anthracene		3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
Benzo (g,h,i) perylene		3800	U	ug/kg	3300	350	U	ug/kg	330	-				1600	U	ug/kg	1600
CLP PESTICIDES/PCBS																	
alpha-BHC		9.3	U	ug/kg	9.3	17	U	ug/kg	17	-				19	U	ug/kg	19
beta-BHC		9.3	U	ug/kg	9.3	17	U	ug/kg	17	-				19	U	ug/kg	19
delta-BHC		9.3	U	ug/kg	9.3	17	U	ug/kg	17	-				19	U	ug/kg	19
gamma-BHC (Lindane)		9.3	U	ug/kg	9.3	17	U	ug/kg	17	-				19	U	ug/kg	19
Heptachlor		9.3	U	ug/kg	9.3	17	U	ug/kg	17	-				19	U	ug/kg	19
Aldrin		9.3	U	ug/kg	9.3	17	U	ug/kg	17	-				19	U	ug/kg	19
Heptachlor epoxide		9.3	U	ug/kg	9.3	17	U	ug/kg	17	-				19	U	ug/kg	19
Endosulfan I		9.3	U	ug/kg	9.3	17	U	ug/kg	17	-				19	U	ug/kg	19
Dieldrin		19	U	ug/kg	19	34	U	ug/kg	34	-				38	U	ug/kg	38
4,4'-DDE		-				-				-				-			
Endrin		19	U	ug/kg	19	34	U	ug/kg	34	-				38	U	ug/kg	38
Endosulfan II		19	U	ug/kg	19	34	U	ug/kg	34	-				38	U	ug/kg	38
4,4'-DDD		-				-				-				-			
Endosulfan sulfate		19	U	ug/kg	19	34	U	ug/kg	34	-				38	U	ug/kg	38
4,4'-DDT		-				-				-				-			
Methoxychlor		93	U	ug/kg	93	170	U	ug/kg	170	-				190	U	ug/kg	190
Endrin ketone		19	U	ug/kg	19	34	U	ug/kg	34	-				38	U	ug/kg	38
alpha Chlordane		93	U	ug/kg	93	170	U	ug/kg	170	-				190	U	ug/kg	190
gamma-Chlordane		93	U	ug/kg	93	170	U	ug/kg	170	-				190	U	ug/kg	190
Toxaphene		190	U	ug/kg	190	340	U	ug/kg	340	-				380	U	ug/kg	380
Aroclor-1016		93	U	ug/kg	93	170	U	ug/kg	170	-				190	U	ug/kg	190
Aroclor-1221		93	U	ug/kg	93	170	U	ug/kg	170	-				190	U	ug/kg	190
Aroclor-1232		93	U	ug/kg	93	170	U	ug/kg	170	-				190	U	ug/kg	190
Aroclor-1242		93	U	ug/kg	93	170	U	ug/kg	170	-				190	U	ug/kg	190
Aroclor-1248		93	U	ug/kg	93	170	U	ug/kg	170	-				190	U	ug/kg	190
Aroclor-1254		190	U	ug/kg	190	340	U	ug/kg	340	-				380	U	ug/kg	380
Aroclor-1260		190	U	ug/kg	190	340	U	ug/kg	340	-				380	U	ug/kg	380
CLP METALS AND CYANIDE																	
Aluminum		758		mg/kg	40	-				3100		mg/kg	40	-			
Antimony		2.6	UJ	mg/kg	12	-				2.4	UJ	mg/kg	12	-			
Arsenic		.12	J	mg/kg	2	-				.24	J	mg/kg	2	-			
Barium		.51	J	mg/kg	40	-				32.5	J	mg/kg	40	-			
Beryllium		.047	UJ	mg/kg	1	-				.32	J	mg/kg	1	-			
Cadmium		.3	UJ	mg/kg	1	-				.28	U	mg/kg	1	-			
Calcium		178	J	mg/kg	1000	-				11100	J	mg/kg	1000	-			
Chromium		1.6	J	mg/kg	2	-				2	J	mg/kg	2	-			
Cobalt		1.2	UJ	mg/kg	10	-				.63	U	mg/kg	10	-			
Copper		.4	U	mg/kg	5	-				2.8	J	mg/kg	5	-			
Iron		149		mg/kg	20	-				431		mg/kg	20	-			
Lead		.8		mg/kg	1	-				1.8	J	mg/kg	1	-			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	20336013				20337001				31625001				20337002		
Site	CECIL				CECIL				CECIL				CECIL		
Locator	BOR3-4-2				BOR3-5-1				BOR3-5-1				BOR3-5-2		
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Magnesium	24.9	J	mg/kg	1000	-				1300		mg/kg	1000	-			
Manganese	1.6	J	mg/kg	3	-				66.3	J	mg/kg	3	-			
Mercury	.033	U	mg/kg	.1	-				.03	U	mg/kg	.1	-			
Nickel	1.5	UJ	mg/kg	8	-				1.3	U	mg/kg	8	-			
Potassium	74.8	J	mg/kg	1000	-				285	UJ	mg/kg	1000	-			
Selenium	.094	UJ	mg/kg	1	-				.086	U	mg/kg	1	-			
Silver	.42	U	mg/kg	2	-				.39	U	mg/kg	2	-			
Sodium	129	J	mg/kg	1000	-				133	J	mg/kg	1000	-			
Thallium	.19	U	mg/kg	2	-				.17	U	mg/kg	2	-			
Vanadium	.47	UJ	mg/kg	10	-				4.3	J	mg/kg	10	-			
Zinc	1.1	UJ	mg/kg	4	-				1.7	UJ	mg/kg	4	-			
Cyanide	.59	U	mg/kg	2	-				.61	U	mg/kg	2	-			
TOC																
Total organic carbon	-				-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625002				20337003				31625003				20337004			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-5-2				BOR3-6-1				BOR3-6-1				BOR3-6-1B			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS																
Chloromethane	-				11	U	ug/kg	11	-				11	U	ug/kg	11
Bromomethane	-				11	U	ug/kg	11	-				11	U	ug/kg	11
Vinyl Chloride	-				11	U	ug/kg	11	-				11	U	ug/kg	11
Chloroethane	-				11	U	ug/kg	11	-				11	U	ug/kg	11
Methylene Chloride	-				28	U	ug/kg	6	-				7	U	ug/kg	6
Acetone	-				14	U	ug/kg	11	-				29	U	ug/kg	11
Carbon disulfide	-				6	U	ug/kg	6	-				6	U	ug/kg	6
1,1-Dichloroethene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
1,1-Dichloroethane	-				6	U	ug/kg	6	-				6	U	ug/kg	6
1,2-Dichloroethene (total)	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Chloroform	-				6	U	ug/kg	6	-				6	U	ug/kg	6
1,2-Dichloroethane	-				6	U	ug/kg	6	-				6	U	ug/kg	6
2-Butanone	-				11	U	ug/kg	11	-				11	U	ug/kg	11
1,1,1-Trichloroethane	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Carbon tetrachloride	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Vinyl acetate	-				11	U	ug/kg	11	-				11	U	ug/kg	11
Bromodichloromethane	-				6	U	ug/kg	6	-				6	U	ug/kg	6
1,2-Dichloropropane	-				6	U	ug/kg	6	-				6	U	ug/kg	6
cis-1,3-Dichloropropene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Trichloroethene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Dibromochloromethane	-				6	U	ug/kg	6	-				6	U	ug/kg	6
1,1,2-Trichloroethane	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Benzene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
trans-1,3-Dichloropropene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Bromoform	-				6	U	ug/kg	6	-				6	U	ug/kg	6
4-Methyl-2-pentanone	-				11	U	ug/kg	11	-				11	U	ug/kg	11
2-Hexanone	-				11	U	ug/kg	11	-				11	U	ug/kg	11
Tetrachloroethene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Toluene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Chlorobenzene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Ethyl Benzene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Styrene	-				6	U	ug/kg	6	-				6	U	ug/kg	6
Xylenes (total)	-				6	U	ug/kg	6	-				4	J	ug/kg	6
CLP SEMIVOLATILES																
Phenol	-				810	U	ug/kg	810	-				740	U	ug/kg	740
bis(2-Chloroethyl) ether	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2-Chlorophenol	-				810	U	ug/kg	810	-				740	U	ug/kg	740
1,3-Dichlorobenzene	-				810	U	ug/kg	810	-				740	U	ug/kg	740

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625002				20337003				31625003				20337004			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-5-2				BOR3-6-1				BOR3-6-1				BOR3-6-1B			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,4-Dichlorobenzene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Benzyl Alcohol	-				-				-				-			
1,2-Dichlorobenzene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2-Methylphenol	-				810	U	ug/kg	810	-				740	U	ug/kg	740
bis(2-Chloroisopropyl) ether	-				-				-				-			
4-Methylphenol	-				810	U	ug/kg	810	-				740	U	ug/kg	740
N-Nitroso-di-n-propylamine	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Hexachloroethane	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Nitrobenzene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Isophorone	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2-Nitrophenol	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2,4-Dimethylphenol	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Benzoic Acid	-				4000	UJ	ug/kg	4000	-				3600	UJ	ug/kg	3600
bis(2-Chloroethoxy) methane	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2,4-Dichlorophenol	-				810	U	ug/kg	810	-				740	U	ug/kg	740
1,2,4-Trichlorobenzene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Naphthalene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
4-Chloroaniline	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Hexachlorobutadiene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
4-Chloro-3-methylphenol	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2-Methylnaphthalene	-				810	UJ	ug/kg	810	-				740	UJ	ug/kg	740
Hexachlorocyclopentadiene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2,4,6-Trichlorophenol	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2,4,5-Trichlorophenol	-				4000	U	ug/kg	4000	-				3600	U	ug/kg	3600
2-Chloronaphthalene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2-Nitroaniline	-				4000	U	ug/kg	4000	-				3600	U	ug/kg	3600
Dimethylphthalate	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Acenaphthylene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2,6-Dinitrotoluene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
3-Nitroaniline	-				4000	U	ug/kg	4000	-				3600	U	ug/kg	3600
Acenaphthene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2,4-Dinitrophenol	-				4000	U	ug/kg	4000	-				3600	U	ug/kg	3600
4-Nitrophenol	-				4000	U	ug/kg	4000	-				3600	U	ug/kg	3600
Dibenzofuran	-				810	U	ug/kg	810	-				740	U	ug/kg	740
2,4-Dinitrotoluene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Diethylphthalate	-				810	U	ug/kg	810	-				740	U	ug/kg	740
4-Chlorophenyl-phenylether	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Fluorene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
4-Nitroaniline	-				4000	U	ug/kg	4000	-				3600	U	ug/kg	3600
4,6-Dinitro-2-methylphenol	-				4000	U	ug/kg	4000	-				3600	U	ug/kg	3600
N-Nitrosodiphenylamine (1)	-				810	U	ug/kg	810	-				740	U	ug/kg	740
4-Bromophenyl-phenylether	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Hexachlorobenzene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Pentachlorophenol	-				4000	U	ug/kg	4000	-				3600	U	ug/kg	3600
Phenanthrene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Anthracene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Di-n-butylphthalate	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Fluoranthene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Pyrene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Butylbenzylphthalate	-				810	U	ug/kg	810	-				740	U	ug/kg	740
3,3'-Dichlorobenzidine	-				-				-				-			
Benzo (a) anthracene	-				810	U	ug/kg	810	-				740	U	ug/kg	740

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625002				20337003				31625003				20337004			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-5-2				BOR3-6-1				BOR3-6-1				BOR3-6-1B			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Chrysene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
bis(2-Ethylhexyl) phthalate	-				170	J	ug/kg	810	-				110	J	ug/kg	740
Di-n-octylphthalate	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Benzo (b) fluoranthene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Benzo (k) fluoranthene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Benzo (a) pyrene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Indeno (1,2,3-cd) pyrene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Dibenz (a,h) anthracene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
Benzo (g,h,i) perylene	-				810	U	ug/kg	810	-				740	U	ug/kg	740
CLP PESTICIDES/PCBS																
alpha-BHC	-				9.9	U	ug/kg	9.9	-				9	U	ug/kg	9
beta-BHC	-				9.9	U	ug/kg	9.9	-				9	U	ug/kg	9
delta-BHC	-				9.9	U	ug/kg	9.9	-				9	U	ug/kg	9
gamma-BHC (Lindane)	-				9.9	U	ug/kg	9.9	-				9	U	ug/kg	9
Heptachlor	-				9.9	U	ug/kg	9.9	-				9	U	ug/kg	9
Aldrin	-				9.9	U	ug/kg	9.9	-				9	U	ug/kg	9
Heptachlor epoxide	-				9.9	U	ug/kg	9.9	-				9	U	ug/kg	9
Endosulfan I	-				9.9	U	ug/kg	9.9	-				9	U	ug/kg	9
Dieldrin	-				20	U	ug/kg	20	-				18	U	ug/kg	18
4,4'-DDE	-				-				-				-			
Endrin	-				20	U	ug/kg	20	-				18	U	ug/kg	18
Endosulfan II	-				20	U	ug/kg	20	-				18	U	ug/kg	18
4,4'-DDD	-				-				-				-			
Endosulfan sulfate	-				20	U	ug/kg	20	-				18	U	ug/kg	18
4,4'-DDT	-				-				-				-			
Methoxychlor	-				99	U	ug/kg	99	-				90	U	ug/kg	90
Endrin ketone	-				20	U	ug/kg	20	-				18	U	ug/kg	18
alpha Chlordane	-				99	U	ug/kg	99	-				90	U	ug/kg	90
gamma-Chlordane	-				99	U	ug/kg	99	-				90	U	ug/kg	90
Toxaphene	-				200	U	ug/kg	200	-				180	U	ug/kg	180
Aroclor-1016	-				99	U	ug/kg	99	-				90	U	ug/kg	90
Aroclor-1221	-				99	U	ug/kg	99	-				90	U	ug/kg	90
Aroclor-1232	-				99	U	ug/kg	99	-				90	U	ug/kg	90
Aroclor-1242	-				99	U	ug/kg	99	-				90	U	ug/kg	90
Aroclor-1248	-				99	U	ug/kg	99	-				90	U	ug/kg	90
Aroclor-1254	-				200	U	ug/kg	200	-				180	U	ug/kg	180
Aroclor-1260	-				200	U	ug/kg	200	-				180	U	ug/kg	180
CLP METALS AND CYANIDE																
Aluminum	723		mg/kg	40	-				1360		mg/kg	40	-			
Antimony	2.6	UJ	mg/kg	12	-				2.6	UJ	mg/kg	12	-			
Arsenic	.21	J	mg/kg	2	-				.11	J	mg/kg	2	-			
Barium	1.9	J	mg/kg	40	-				6.1	J	mg/kg	40	-			
Beryllium	.047	U	mg/kg	1	-				.046	U	mg/kg	1	-			
Cadmium	.3	U	mg/kg	1	-				.71	UJ	mg/kg	1	-			
Calcium	412	J	mg/kg	1000	-				1180	J	mg/kg	1000	-			
Chromium	1.5	J	mg/kg	2	-				2.2	J	mg/kg	2	-			
Cobalt	.68	U	mg/kg	10	-				.67	U	mg/kg	10	-			
Copper	2	J	mg/kg	5	-				9.9		mg/kg	5	-			
Iron	196		mg/kg	20	-				656		mg/kg	20	-			
Lead	1.4	J	mg/kg	1	-				4	J	mg/kg	1	-			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625002				20337003			31625003				20337004			
Site	CECIL				CECIL			CECIL				CECIL			
Locator	BOR3-5-2				BOR3-6-1			BOR3-6-1				BOR3-6-1B			
Collect Date:	04-DEC-91				04-DEC-91			04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Magnesium	51.6	J	mg/kg	1000	-				73.9	J	mg/kg	1000	-			
Manganese	1.9	J	mg/kg	3	-				3.7		mg/kg	3	-			
Mercury	.033	U	mg/kg	.1	-				.13		mg/kg	.1	-			
Nickel	1.5	J	mg/kg	8	-				3.7	J	mg/kg	8	-			
Potassium	98.9	UJ	mg/kg	1000	-				102	UJ	mg/kg	1000	-			
Selenium	.094	U	mg/kg	1	-				.92	U	mg/kg	1	-			
Silver	.42	U	mg/kg	2	-				1.2	UJ	mg/kg	2	-			
Sodium	100	J	mg/kg	1000	-				93	J	mg/kg	1000	-			
Thallium	.19	U	mg/kg	2	-				.18	UJ	mg/kg	2	-			
Vanadium	.92	UJ	mg/kg	10	-				1.2	UJ	mg/kg	10	-			
Zinc	1.4	UJ	mg/kg	4	-				17.9		mg/kg	4	-			
Cyanide	.18	U	mg/kg	2	-				.17	U	mg/kg	2	-			
TOC																
Total organic carbon	-				-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625004			20337005			31625005			20337006				
Site	CECIL			CECIL			CECIL			CECIL				
Locator	BOR3-6-1B			BOR3-6-2			BOR3-6-2			BOR3-7-1				
Collect Date:	04-DEC-91			04-DEC-91			04-DEC-91			04-DEC-91				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS																
Chloromethane	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Bromomethane	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Vinyl Chloride	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Chloroethane	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Methylene Chloride	-				760	U	ug/kg	760	-				6	U	ug/kg	5
Acetone	-				8400	U	ug/kg	1500	-				11	U	ug/kg	11
Carbon disulfide	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,1-Dichloroethene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,1-Dichloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,2-Dichloroethene (total)	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Chloroform	-				550	J	ug/kg	760	-				5	U	ug/kg	5
1,2-Dichloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
2-Butanone	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
1,1,1-Trichloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Carbon tetrachloride	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Vinyl acetate	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Bromodichloromethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,2-Dichloropropane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
cis-1,3-Dichloropropene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Trichloroethene	-				270	J	ug/kg	760	-				5	U	ug/kg	5
Dibromochloromethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,1,2-Trichloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Benzene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
trans-1,3-Dichloropropene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Bromoform	-				760	U	ug/kg	760	-				5	U	ug/kg	5
4-Methyl-2-pentanone	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
2-Hexanone	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Tetrachloroethene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Toluene	-				190	J	ug/kg	760	-				2	J	ug/kg	5
1,1,2,2-Tetrachloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Chlorobenzene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Ethyl Benzene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Styrene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Xylenes (total)	-				760	U	ug/kg	760	-				7		ug/kg	5
CLP SEMIVOLATILES																
Phenol	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
bis(2-Chloroethyl) ether	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2-Chlorophenol	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
1,3-Dichlorobenzene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:		31625004				20337005				31625005				20337006			
Site		CECIL				CECIL				CECIL				CECIL			
Locator		BOR3-6-1B				BOR3-6-2				BOR3-6-2				BOR3-7-1			
Collect Date:		04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,4-Dichlorobenzene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Benzyl Alcohol	-				-				-				-			
1,2-Dichlorobenzene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2-Methylphenol	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
bis(2-Chloroisopropyl) ether	-				-				-				-			
4-Methylphenol	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
N-Nitroso-di-n-propylamine	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Hexachloroethane	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Nitrobenzene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Isophorone	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2-Nitrophenol	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2,4-Dimethylphenol	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Benzoic Acid	-				15000	U	ug/kg	15000	-				1700	UJ	ug/kg	1700
bis(2-Chloroethoxy) methane	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2,4-Dichlorophenol	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
1,2,4-Trichlorobenzene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Naphthalene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
4-Chloroaniline	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Hexachlorobutadiene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
4-Chloro-3-methylphenol	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2-Methylnaphthalene	-				3100	U	ug/kg	3100	-				360	UJ	ug/kg	360
Hexachlorocyclopentadiene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2,4,6-Trichlorophenol	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2,4,5-Trichlorophenol	-				15000	U	ug/kg	15000	-				1700	U	ug/kg	1700
2-Chloronaphthalene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2-Nitroaniline	-				15000	U	ug/kg	15000	-				1700	U	ug/kg	1700
Dimethylphthalate	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Acenaphthylene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2,6-Dinitrotoluene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
3-Nitroaniline	-				15000	U	ug/kg	15000	-				1700	U	ug/kg	1700
Acenaphthene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2,4-Dinitrophenol	-				15000	U	ug/kg	15000	-				1700	U	ug/kg	1700
4-Nitrophenol	-				15000	U	ug/kg	15000	-				1700	U	ug/kg	1700
Dibenzofuran	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
2,4-Dinitrotoluene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Diethylphthalate	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
4-Chlorophenyl-phenylether	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Fluorene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
4-Nitroaniline	-				15000	U	ug/kg	15000	-				1700	U	ug/kg	1700
4,6-Dinitro-2-methylphenol	-				15000	U	ug/kg	15000	-				1700	U	ug/kg	1700
N-Nitrosodiphenylamine (1)	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
4-Bromophenyl-phenylether	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Hexachlorobenzene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Pentachlorophenol	-				15000	U	ug/kg	15000	-				1700	U	ug/kg	1700
Phenanthrene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Anthracene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Di-n-butylphthalate	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Fluoranthene	-				480	J	ug/kg	3100	-				360	U	ug/kg	360
Pyrene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Butylbenzylphthalate	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
3,3'-Dichlorobenzidine	-				-				-				-			
Benzo (a) anthracene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:		31625004				20337005				31625005				20337006		
Site		CECIL				CECIL				CECIL				CECIL		
Locator		BOR3-6-1B				BOR3-6-2				BOR3-6-2				BOR3-7-1		
Collect Date:		04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Chrysene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
bis(2-Ethylhexyl) phthalate	-				6800		ug/kg	3100	-				360	U	ug/kg	360
Di-n-octylphthalate	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Benzo (b) fluoranthene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Benzo (k) fluoranthene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Benzo (a) pyrene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Indeno (1,2,3-cd) pyrene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Dibenz (a,h) anthracene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
Benzo (g,h,i) perylene	-				3100	U	ug/kg	3100	-				360	U	ug/kg	360
CLP PESTICIDES/PCBS																
alpha-BHC	-				9.4	U	ug/kg	9.4	-				17	U	ug/kg	17
beta-BHC	-				9.4	U	ug/kg	9.4	-				17	U	ug/kg	17
delta-BHC	-				9.4	U	ug/kg	9.4	-				17	U	ug/kg	17
gamma-BHC (Lindane)	-				9.4	U	ug/kg	9.4	-				17	U	ug/kg	17
Heptachlor	-				9.4	U	ug/kg	9.4	-				17	U	ug/kg	17
Aldrin	-				9.4	U	ug/kg	9.4	-				17	U	ug/kg	17
Heptachlor epoxide	-				9.4	U	ug/kg	9.4	-				17	U	ug/kg	17
Endosulfan I	-				9.4	U	ug/kg	9.4	-				17	U	ug/kg	17
Dieldrin	-				19	U	ug/kg	19	-				35	U	ug/kg	35
4,4'-DDE	-				-				-				-			
Endrin	-				19	U	ug/kg	19	-				35	U	ug/kg	35
Endosulfan II	-				19	U	ug/kg	19	-				35	U	ug/kg	35
4,4'-DDD	-				-				-				-			
Endosulfan sulfate	-				19	U	ug/kg	19	-				35	U	ug/kg	35
4,4'-DDT	-				-				-				-			
Methoxychlor	-				94	U	ug/kg	94	-				170	U	ug/kg	170
Endrin ketone	-				19	U	ug/kg	19	-				35	U	ug/kg	35
alpha Chlordane	-				94	U	ug/kg	94	-				170	U	ug/kg	170
gamma-Chlordane	-				94	U	ug/kg	94	-				170	U	ug/kg	170
Toxaphene	-				190	U	ug/kg	190	-				350	U	ug/kg	350
Aroclor-1016	-				94	U	ug/kg	94	-				170	U	ug/kg	170
Aroclor-1221	-				94	U	ug/kg	94	-				170	U	ug/kg	170
Aroclor-1232	-				94	U	ug/kg	94	-				170	U	ug/kg	170
Aroclor-1242	-				94	U	ug/kg	94	-				170	U	ug/kg	170
Aroclor-1248	-				94	U	ug/kg	94	-				170	U	ug/kg	170
Aroclor-1254	-				190	U	ug/kg	190	-				350	U	ug/kg	350
Aroclor-1260	-				190	U	ug/kg	190	-				350	U	ug/kg	350
CLP METALS AND CYANIDE																
Aluminum	1580		mg/kg	40	-				572		mg/kg	40	-			
Antimony	2.5	UJ	mg/kg	12	-				2.7	UJ	mg/kg	12	-			
Arsenic	.09	J	mg/kg	2	-				.094	U	mg/kg	2	-			
Barium	4.3	J	mg/kg	40	-				1.9	J	mg/kg	40	-			
Beryllium	.045	U	mg/kg	1	-				.047	U	mg/kg	1	-			
Cadmium	.29	U	mg/kg	1	-				.31	U	mg/kg	1	-			
Calcium	1340	J	mg/kg	1000	-				507	J	mg/kg	1000	-			
Chromium	2.1	J	mg/kg	2	-				1.3	J	mg/kg	2	-			
Cobalt	.65	U	mg/kg	10	-				.68	U	mg/kg	10	-			
Copper	4.9	J	mg/kg	5	-				1.7	J	mg/kg	5	-			
Iron	530		mg/kg	20	-				183		mg/kg	20	-			
Lead	2.3	J	mg/kg	1	-				2	J	mg/kg	1	-			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625004				20337005			31625005				20337006		
Site	CECIL				CECIL			CECIL				CECIL		
Locator	BOR3-6-1B				BOR3-6-2			BOR3-6-2				BOR3-7-1		
Collect Date:	04-DEC-91				04-DEC-91			04-DEC-91				04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Magnesium	53.6	J	mg/kg	1000	-				28.6	UJ	mg/kg	1000	-			
Manganese	4		mg/kg	3	-				2	J	mg/kg	3	-			
Mercury	.035	J	mg/kg	.1	-				.04	J	mg/kg	.1	-			
Nickel	1.7	J	mg/kg	8	-				2.2	J	mg/kg	8	-			
Potassium	90.4	UJ	mg/kg	1000	-				85.6	UJ	mg/kg	1000	-			
Selenium	.09	U	mg/kg	1	-				.094	U	mg/kg	1	-			
Silver	.41	U	mg/kg	2	-				.42	U	mg/kg	2	-			
Sodium	99	J	mg/kg	1000	-				120	J	mg/kg	1000	-			
Thallium	.18	UJ	mg/kg	2	-				.19	UJ	mg/kg	2	-			
Vanadium	1.2	UJ	mg/kg	10	-				.45	UJ	mg/kg	10	-			
Zinc	7.6		mg/kg	4	-				2.33	J	mg/kg	4	-			
Cyanide	.17	U	mg/kg	2	-				.18	U	mg/kg	2	-			
TOC																
Total organic carbon	-				-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625006			20337007			31625007			20337008				
Site	CECIL			CECIL			CECIL			CECIL				
Locator	BOR3-7-1			BOR3-7-2			BOR3-7-2			BOR3-8-1				
Collect Date:	04-DEC-91			04-DEC-91			04-DEC-91			04-DEC-91				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS																
Chloromethane	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Bromomethane	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Vinyl Chloride	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Chloroethane	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Methylene Chloride	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Acetone	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Carbon disulfide	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,1-Dichloroethene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,1-Dichloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,2-Dichloroethene (total)	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Chloroform	-				560	J	ug/kg	760	-				5	U	ug/kg	5
1,2-Dichloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
2-Butanone	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
1,1,1-Trichloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Carbon tetrachloride	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Vinyl acetate	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Bromodichloromethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,2-Dichloropropane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
cis-1,3-Dichloropropene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Trichloroethene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Dibromochloromethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,1,2-Trichloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Benzene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
trans-1,3-Dichloropropene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Bromoform	-				760	U	ug/kg	760	-				5	U	ug/kg	5
4-Methyl-2-pentanone	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
2-Hexanone	-				1500	U	ug/kg	1500	-				11	U	ug/kg	11
Tetrachloroethene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Toluene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
1,1,2,2-Tetrachloroethane	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Chlorobenzene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Ethyl Benzene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Styrene	-				760	U	ug/kg	760	-				5	U	ug/kg	5
Xylenes (total)	-				760	U	ug/kg	760	-				3	J	ug/kg	5
CLP SEMIVOLATILES																
Phenol	-				790	U	ug/kg	790	-				350	U	ug/kg	350
bis(2-Chloroethyl) ether	-				790	U	ug/kg	790	-				350	U	ug/kg	350
2-Chlorophenol	-				790	U	ug/kg	790	-				350	U	ug/kg	350
1,3-Dichlorobenzene	-				790	U	ug/kg	790	-				350	U	ug/kg	350

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625006			20337007			31625007			20337008		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	BOR3-7-1			BOR3-7-2			BOR3-7-2			BOR3-8-1		
Collect Date:	04-DEC-91			04-DEC-91			04-DEC-91			04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,4-Dichlorobenzene	-				790	U	ug/kg	790	-			
Benzyl Alcohol	-				-				-			
1,2-Dichlorobenzene	-				790	U	ug/kg	790	-			
2-Methylphenol	-				790	U	ug/kg	790	-			
bis(2-Chloroisopropyl) ether	-				-				-			
4-Methylphenol	-				790	U	ug/kg	790	-			
N-Nitroso-di-n-propylamine	-				790	U	ug/kg	790	-			
Hexachloroethane	-				790	U	ug/kg	790	-			
Nitrobenzene	-				790	U	ug/kg	790	-			
Isophorone	-				790	U	ug/kg	790	-			
2-Nitrophenol	-				790	U	ug/kg	790	-			
2,4-Dimethylphenol	-				3800	UJ	ug/kg	3800	-			
Benzoic Acid	-				790	U	ug/kg	790	-			
bis(2-Chloroethoxy) methane	-				790	U	ug/kg	790	-			
2,4-Dichlorophenol	-				790	U	ug/kg	790	-			
1,2,4-Trichlorobenzene	-				790	U	ug/kg	790	-			
Naphthalene	-				790	U	ug/kg	790	-			
4-Chloroaniline	-				790	U	ug/kg	790	-			
Hexachlorobutadiene	-				790	U	ug/kg	790	-			
4-Chloro-3-methylphenol	-				790	UJ	ug/kg	790	-			
2-Methylnaphthalene	-				790	U	ug/kg	790	-			
Hexachlorocyclopentadiene	-				790	U	ug/kg	790	-			
2,4,6-Trichlorophenol	-				3800	U	ug/kg	3800	-			
2,4,5-Trichlorophenol	-				790	U	ug/kg	790	-			
2-Chloronaphthalene	-				3800	U	ug/kg	3800	-			
2-Nitroaniline	-				790	U	ug/kg	790	-			
Dimethylphthalate	-				790	U	ug/kg	790	-			
Acenaphthylene	-				790	U	ug/kg	790	-			
2,6-Dinitrotoluene	-				3800	U	ug/kg	3800	-			
3-Nitroaniline	-				790	U	ug/kg	790	-			
Acenaphthene	-				3800	U	ug/kg	3800	-			
2,4-Dinitrophenol	-				3800	U	ug/kg	3800	-			
4-Nitrophenol	-				790	U	ug/kg	790	-			
Dibenzofuran	-				790	U	ug/kg	790	-			
2,4-Dinitrotoluene	-				790	U	ug/kg	790	-			
Diethylphthalate	-				790	U	ug/kg	790	-			
4-Chlorophenyl-phenylether	-				790	U	ug/kg	790	-			
Fluorene	-				3800	U	ug/kg	3800	-			
4-Nitroaniline	-				3800	U	ug/kg	3800	-			
4,6-Dinitro-2-methylphenol	-				790	U	ug/kg	790	-			
N-Nitrosodiphenylamine (1)	-				790	U	ug/kg	790	-			
4-Bromophenyl-phenylether	-				790	U	ug/kg	790	-			
Hexachlorobenzene	-				3800	U	ug/kg	3800	-			
Pentachlorophenol	-				790	U	ug/kg	790	-			
Phenanthrene	-				790	U	ug/kg	790	-			
Anthracene	-				790	U	ug/kg	790	-			
Di-n-butylphthalate	-				790	U	ug/kg	790	-			
Fluoranthene	-				790	U	ug/kg	790	-			
Pyrene	-				790	U	ug/kg	790	-			
Butylbenzylphthalate	-				-				-			
3,3'-Dichlorobenzidine	-				790	U	ug/kg	790	-			
Benzo (a) anthracene	-											
										350	U	ug/kg 350
										-		
										350	U	ug/kg 350
										350	U	ug/kg 350
										-		
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	UJ	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										1700	U	ug/kg 1700
										350	U	ug/kg 350
										1700	U	ug/kg 1700
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										1700	U	ug/kg 1700
										350	U	ug/kg 350
										1700	U	ug/kg 1700
										1700	U	ug/kg 1700
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										1700	U	ug/kg 1700
										1700	U	ug/kg 1700
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										1700	U	ug/kg 1700
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										350	U	ug/kg 350
										-		
										350	U	ug/kg 350

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625006				20337007				31625007				20337008			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-7-1				BOR3-7-2				BOR3-7-2				BOR3-8-1			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Chrysene	-				790	U	ug/kg	790	-				350	U	ug/kg	350
bis(2-Ethylhexyl) phthalate	-				330	J	ug/kg	790	-				39	J	ug/kg	350
Di-n-octylphthalate	-				790	U	ug/kg	790	-				350	U	ug/kg	350
Benzo (b) fluoranthene	-				790	U	ug/kg	790	-				350	U	ug/kg	350
Benzo (k) fluoranthene	-				790	U	ug/kg	790	-				350	U	ug/kg	350
Benzo (a) pyrene	-				790	U	ug/kg	790	-				350	U	ug/kg	350
Indeno (1,2,3-cd) pyrene	-				790	U	ug/kg	790	-				350	U	ug/kg	350
Dibenz (a,h) anthracene	-				790	U	ug/kg	790	-				350	U	ug/kg	350
Benzo (g,h,i) perylene	-				790	U	ug/kg	790	-				350	U	ug/kg	350
CLP PESTICIDES/PCBS																
alpha-BHC	-				19	U	ug/kg	19	-				8.6	U	ug/kg	8.6
beta-BHC	-				19	U	ug/kg	19	-				8.6	U	ug/kg	8.6
delta-BHC	-				19	U	ug/kg	19	-				8.6	U	ug/kg	8.6
gamma-BHC (Lindane)	-				19	U	ug/kg	19	-				8.6	U	ug/kg	8.6
Heptachlor	-				19	U	ug/kg	19	-				8.6	U	ug/kg	8.6
Aldrin	-				19	U	ug/kg	19	-				8.6	U	ug/kg	8.6
Heptachlor epoxide	-				19	U	ug/kg	19	-				8.6	U	ug/kg	8.6
Endosulfan I	-				19	U	ug/kg	19	-				8.6	U	ug/kg	8.6
Dieldrin	-				38	U	ug/kg	38	-				17	U	ug/kg	17
4,4'-DDE	-				-				-				-			
Endrin	-				38	U	ug/kg	38	-				17	U	ug/kg	17
Endosulfan II	-				38	U	ug/kg	38	-				17	U	ug/kg	17
4,4'-DDD	-				-				-				-			
Endosulfan sulfate	-				38	U	ug/kg	38	-				17	U	ug/kg	17
4,4'-DDT	-				-				-				-			
Methoxychlor	-				190	U	ug/kg	190	-				86	U	ug/kg	86
Endrin ketone	-				38	U	ug/kg	38	-				17	U	ug/kg	17
alpha Chlordane	-				190	U	ug/kg	190	-				86	U	ug/kg	86
gamma-Chlordane	-				190	U	ug/kg	190	-				86	U	ug/kg	86
Toxaphene	-				380	U	ug/kg	380	-				170	U	ug/kg	170
Aroclor-1016	-				190	U	ug/kg	190	-				86	U	ug/kg	86
Aroclor-1221	-				190	U	ug/kg	190	-				86	U	ug/kg	86
Aroclor-1232	-				190	U	ug/kg	190	-				86	U	ug/kg	86
Aroclor-1242	-				190	U	ug/kg	190	-				86	U	ug/kg	86
Aroclor-1248	-				190	U	ug/kg	190	-				86	U	ug/kg	86
Aroclor-1254	-				380	U	ug/kg	380	-				170	U	ug/kg	170
Aroclor-1260	-				380	U	ug/kg	380	-				170	U	ug/kg	170
CLP METALS AND CYANIDE																
Aluminum	1180		mg/kg	40	-				469		mg/kg	40	-			
Antimony	2.4	UJ	mg/kg	12	-				2.7	UJ	mg/kg	12	-			
Arsenic	.086	U	mg/kg	2	-				.096	U	mg/kg	2	-			
Barium	2	J	mg/kg	40	-				.47	J	mg/kg	40	-			
Beryllium	.043	U	mg/kg	1	-				.048	U	mg/kg	1	-			
Cadmium	.28	U	mg/kg	1	-				.31	U	mg/kg	1	-			
Calcium	650	J	mg/kg	1000	-				139	J	mg/kg	1000	-			
Chromium	1.2	J	mg/kg	2	-				1.4	J	mg/kg	2	-			
Cobalt	.62	U	mg/kg	10	-				.69	U	mg/kg	10	-			
Copper	.83	J	mg/kg	5	-				.75	J	mg/kg	5	-			
Iron	243		mg/kg	20	-				106		mg/kg	20	-			
Lead	1.51	J	mg/kg	1	-				1	J	mg/kg	1	-			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625006				20337007				31625007				20337008			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	BOR3-7-1				BOR3-7-2				BOR3-7-2				BOR3-8-1			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Magnesium	31.1	UJ	mg/kg	1000	-				17.8	UJ	mg/kg	1000	-			
Manganese	1.6	J	mg/kg	3	-				1.1	J	mg/kg	3	-			
Mercury	.04	J	mg/kg	.1	-				.033	U	mg/kg	.1	-			
Nickel	1.3	U	mg/kg	8	-				1.4	U	mg/kg	8	-			
Potassium	76.8	UJ	mg/kg	1000	-				107	UJ	mg/kg	1000	-			
Selenium	.086	U	mg/kg	1	-				.096	U	mg/kg	1	-			
Silver	.39	U	mg/kg	2	-				.43	U	mg/kg	2	-			
Sodium	87.55	J	mg/kg	1000	-				87	J	mg/kg	1000	-			
Thallium	.17	UJ	mg/kg	2	-				.19	UJ	mg/kg	2	-			
Vanadium	1.2	UJ	mg/kg	10	-				.31	U	mg/kg	10	-			
Zinc	1.02	UJ	mg/kg	4	-				.87	UJ	mg/kg	4	-			
Cyanide	.61	U	mg/kg	2	-				.18	U	mg/kg	2	-			
TOC																
Total organic carbon	-				-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625008			20337009			31625009		
Site	CECIL			CECIL			CECIL		
Locator	BOR3-8-1			BOR3-8-2			BOR3-8-2		
Collect Date:	04-DEC-91			04-DEC-91			04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS												
Chloromethane	-				12	U	ug/kg	12	-			
Bromomethane	-				12	U	ug/kg	12	-			
Vinyl Chloride	-				12	U	ug/kg	12	-			
Chloroethane	-				12	U	ug/kg	12	-			
Methylene Chloride	-				13	U	ug/kg	6	-			
Acetone	-				12	U	ug/kg	12	-			
Carbon disulfide	-				6	U	ug/kg	6	-			
1,1-Dichloroethene	-				6	U	ug/kg	6	-			
1,1-Dichloroethane	-				6	U	ug/kg	6	-			
1,2-Dichloroethene (total)	-				6	U	ug/kg	6	-			
Chloroform	-				6	U	ug/kg	6	-			
1,2-Dichloroethane	-				6	U	ug/kg	6	-			
2-Butanone	-				12	U	ug/kg	12	-			
1,1,1-Trichloroethane	-				6	U	ug/kg	6	-			
Carbon tetrachloride	-				6	U	ug/kg	6	-			
Vinyl acetate	-				12	U	ug/kg	12	-			
Bromodichloromethane	-				6	U	ug/kg	6	-			
1,2-Dichloropropane	-				6	U	ug/kg	6	-			
cis-1,3-Dichloropropene	-				6	U	ug/kg	6	-			
Trichloroethene	-				6	U	ug/kg	6	-			
Dibromochloromethane	-				6	U	ug/kg	6	-			
1,1,2-Trichloroethane	-				6	U	ug/kg	6	-			
Benzene	-				6	U	ug/kg	6	-			
trans-1,3-Dichloropropene	-				6	U	ug/kg	6	-			
Bromoform	-				6	U	ug/kg	6	-			
4-Methyl-2-pentanone	-				12	U	ug/kg	12	-			
2-Hexanone	-				12	U	ug/kg	12	-			
Tetrachloroethene	-				6	U	ug/kg	6	-			
Toluene	-				4	J	ug/kg	6	-			
1,1,2,2-Tetrachloroethane	-				6	U	ug/kg	6	-			
Chlorobenzene	-				6	U	ug/kg	6	-			
Ethyl Benzene	-				6	U	ug/kg	6	-			
Styrene	-				6	U	ug/kg	6	-			
Xylenes (total)	-				6	U	ug/kg	6	-			
CLP SEMIVOLATILES												
Phenol	-				800	U	ug/kg	800	-			
bis(2-Chloroethyl) ether	-				800	U	ug/kg	800	-			
2-Chlorophenol	-				800	U	ug/kg	800	-			
1,3-Dichlorobenzene	-				800	U	ug/kg	800	-			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:		31625008				20337009				31625009		
Site		CECIL				CECIL				CECIL		
Locator		BOR3-8-1				BOR3-8-2				BOR3-8-2		
Collect Date:		04-DEC-91				04-DEC-91				04-DEC-91		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,4-Dichlorobenzene	-				800	U	ug/kg	800	-			
Benzyl Alcohol	-				-				-			
1,2-Dichlorobenzene	-				800	U	ug/kg	800	-			
2-Methylphenol	-				800	U	ug/kg	800	-			
bis(2-Chloroisopropyl) ether	-				-				-			
4-Methylphenol	-				800	U	ug/kg	800	-			
N-Nitroso-di-n-propylamine	-				800	U	ug/kg	800	-			
Hexachloroethane	-				800	U	ug/kg	800	-			
Nitrobenzene	-				800	U	ug/kg	800	-			
Isophorone	-				800	U	ug/kg	800	-			
2-Nitrophenol	-				800	U	ug/kg	800	-			
2,4-Dimethylphenol	-				800	U	ug/kg	800	-			
Benzoic Acid	-				3900	UJ	ug/kg	3900	-			
bis(2-Chloroethoxy) methane	-				800	U	ug/kg	800	-			
2,4-Dichlorophenol	-				800	U	ug/kg	800	-			
1,2,4-Trichlorobenzene	-				800	U	ug/kg	800	-			
Naphthalene	-				800	U	ug/kg	800	-			
4-Chloroaniline	-				800	U	ug/kg	800	-			
Hexachlorobutadiene	-				800	U	ug/kg	800	-			
4-Chloro-3-methylphenol	-				800	U	ug/kg	800	-			
2-Methylnaphthalene	-				800	UJ	ug/kg	800	-			
Hexachlorocyclopentadiene	-				800	U	ug/kg	800	-			
2,4,6-Trichlorophenol	-				800	U	ug/kg	800	-			
2,4,5-Trichlorophenol	-				3900	U	ug/kg	3900	-			
2-Chloronaphthalene	-				800	U	ug/kg	800	-			
2-Nitroaniline	-				3900	U	ug/kg	3900	-			
Dimethylphthalate	-				800	U	ug/kg	800	-			
Acenaphthylene	-				800	U	ug/kg	800	-			
2,6-Dinitrotoluene	-				800	U	ug/kg	800	-			
3-Nitroaniline	-				3900	U	ug/kg	3900	-			
Acenaphthene	-				800	U	ug/kg	800	-			
2,4-Dinitrophenol	-				3900	U	ug/kg	3900	-			
4-Nitrophenol	-				3900	U	ug/kg	3900	-			
Dibenzofuran	-				800	U	ug/kg	800	-			
2,4-Dinitrotoluene	-				800	U	ug/kg	800	-			
Diethylphthalate	-				800	U	ug/kg	800	-			
4-Chlorophenyl-phenylether	-				800	U	ug/kg	800	-			
Fluorene	-				800	U	ug/kg	800	-			
4-Nitroaniline	-				3900	U	ug/kg	3900	-			
4,6-Dinitro-2-methylphenol	-				3900	U	ug/kg	3900	-			
N-Nitrosodiphenylamine (1)	-				800	U	ug/kg	800	-			
4-Bromophenyl-phenylether	-				800	U	ug/kg	800	-			
Hexachlorobenzene	-				800	U	ug/kg	800	-			
Pentachlorophenol	-				3900	U	ug/kg	3900	-			
Phenanthrene	-				800	U	ug/kg	800	-			
Anthracene	-				800	U	ug/kg	800	-			
Di-n-butylphthalate	-				800	U	ug/kg	800	-			
Fluoranthene	-				800	U	ug/kg	800	-			
Pyrene	-				800	U	ug/kg	800	-			
Butylbenzylphthalate	-				800	U	ug/kg	800	-			
3,3'-Dichlorobenzidine	-				-				-			
Benzo (a) anthracene	-				800	U	ug/kg	800	-			

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625008				20337009				31625009			
Site	CECIL				CECIL				CECIL			
Locator	BOR3-8-1				BOR3-8-2				BOR3-8-2			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Chrysene	-				800	U	ug/kg	800	-			
bis(2-Ethylhexyl) phthalate	-				3400		ug/kg	3400	-			
Di-n-octylphthalate	-				800	U	ug/kg	800	-			
Benzo (b) fluoranthene	-				800	U	ug/kg	800	-			
Benzo (k) fluoranthene	-				800	U	ug/kg	800	-			
Benzo (a) pyrene	-				800	U	ug/kg	800	-			
Indeno (1,2,3-cd) pyrene	-				800	U	ug/kg	800	-			
Dibenz (a,h) anthracene	-				800	U	ug/kg	800	-			
Benzo (g,h,i) perylene	-				800	U	ug/kg	800	-			
CLP PESTICIDES/PCBS												
alpha-BHC	-				9.6	U	ug/kg	9.6	-			
beta-BHC	-				9.6	U	ug/kg	9.6	-			
delta-BHC	-				9.6	U	ug/kg	9.6	-			
gamma-BHC (Lindane)	-				9.6	U	ug/kg	9.6	-			
Heptachlor	-				9.6	U	ug/kg	9.6	-			
Aldrin	-				9.6	U	ug/kg	9.6	-			
Heptachlor epoxide	-				9.6	U	ug/kg	9.6	-			
Endosulfan I	-				9.6	U	ug/kg	9.6	-			
Dieldrin	-				19	U	ug/kg	19	-			
4,4'-DDE	-				-				-			
Endrin	-				19	U	ug/kg	19	-			
Endosulfan II	-				19	U	ug/kg	19	-			
4,4'-DDD	-				-				-			
Endosulfan sulfate	-				19	U	ug/kg	19	-			
4,4'-DDT	-				-				-			
Methoxychlor	-				96	U	ug/kg	96	-			
Endrin ketone	-				19	U	ug/kg	19	-			
alpha Chlordane	-				96	U	ug/kg	96	-			
gamma-Chlordane	-				96	U	ug/kg	96	-			
Toxaphene	-				190	U	ug/kg	190	-			
Aroclor-1016	-				96	U	ug/kg	96	-			
Aroclor-1221	-				96	U	ug/kg	96	-			
Aroclor-1232	-				96	U	ug/kg	96	-			
Aroclor-1242	-				96	U	ug/kg	96	-			
Aroclor-1248	-				96	U	ug/kg	96	-			
Aroclor-1254	-				190	U	ug/kg	190	-			
Aroclor-1260	-				190	U	ug/kg	190	-			
CLP METALS AND CYANIDE												
Aluminum	1170		mg/kg	40	-				1610		mg/kg	40
Antimony	2.5	UJ	mg/kg	12	-				2.7	UJ	mg/kg	12
Arsenic	.15	J	mg/kg	2	-				.096	U	mg/kg	2
Barium	2.35	J	mg/kg	40	-				3.2	J	mg/kg	40
Beryllium	.11	J	mg/kg	1	-				.048	U	mg/kg	1
Cadmium	.28	U	mg/kg	1	-				.31	U	mg/kg	1
Calcium	482	J	mg/kg	1000	-				449	J	mg/kg	1000
Chromium	28.1		mg/kg	2	-				1.2	J	mg/kg	2
Cobalt	.63	U	mg/kg	10	-				.69	U	mg/kg	10
Copper	1.4	J	mg/kg	5	-				.99	J	mg/kg	5
Iron	516		mg/kg	20	-				415		mg/kg	20
Lead	2.1	J	mg/kg	1	-				2.9	J	mg/kg	1

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- SUBSURFACE SOIL

Lab Sample Number:	31625008				20337009				31625009			
Site	CECIL				CECIL				CECIL			
Locator	BOR3-8-1				BOR3-8-2				BOR3-8-2			
Collect Date:	04-DEC-91				04-DEC-91				04-DEC-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Magnesium	88	J	mg/kg	1000	-				70.7	J	mg/kg	1000
Manganese	32.7		mg/kg	3	-				4.9		mg/kg	3
Mercury	.036	J	mg/kg	.1	-				.08		mg/kg	.1
Nickel	19.1		mg/kg	8	-				2.43	J	mg/kg	8
Potassium	85.4	UJ	mg/kg	1000	-				69.32	UJ	mg/kg	1000
Selenium	.087	U	mg/kg	1	-				.096	U	mg/kg	1
Silver	.39	U	mg/kg	2	-				.43	U	mg/kg	2
Sodium	119	J	mg/kg	1000	-				115	J	mg/kg	1000
Thallium	.17	UJ	mg/kg	2	-				.19	UJ	mg/kg	2
Vanadium	1.3	UJ	mg/kg	10	-				1.4	UJ	mg/kg	10
Zinc	2.8	J	mg/kg	4	-				3.51	J	mg/kg	4
Cyanide	.61	U	mg/kg	2	-				.18	U	mg/kg	2
TOC												
Total organic carbon	-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:	20198009				20198006				20198004				20198005			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEF-3-3				CEF-3-4				CEF-3-5				CEF-3-6			
Collect Date:	19-NOV-91				19-NOV-91				19-NOV-91				19-NOV-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS																
Chloromethane	60	U	ug/l	60	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Bromomethane	60	U	ug/l	60	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Vinyl Chloride	60	U	ug/l	60	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Chloroethane	60	U	ug/l	60	22		ug/l	10	10	U	ug/l	10	10	J	ug/l	50
Methylene Chloride	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Acetone	96	U	ug/l	60	23	U	ug/l	10	15	U	ug/l	10	150	U	ug/l	50
Carbon disulfide	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
1,1-Dichloroethene	7	J	ug/l	30	11		ug/l	5	5	U	ug/l	5	58		ug/l	25
1,1-Dichloroethane	8	J	ug/l	30	69		ug/l	5	5	U	ug/l	5	180		ug/l	25
1,2-Dichloroethene (total)	390		ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Chloroform	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
1,2-Dichloroethane	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
2-Butanone	60	U	ug/l	60	22	J	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
1,1,1-Trichloroethane	22	J	ug/l	30	29		ug/l	5	5	U	ug/l	5	700		ug/l	25
Carbon tetrachloride	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Vinyl acetate	60	U	ug/l	60	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Bromodichloromethane	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
1,2-Dichloropropane	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
cis-1,3-Dichloropropene	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Trichloroethene	910		ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Dibromochloromethane	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
1,1,2-Trichloroethane	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Benzene	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	8	J	ug/l	25
trans-1,3-Dichloropropene	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Bromoform	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
4-Methyl-2-pentanone	60	U	ug/l	60	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
2-Hexanone	60	U	ug/l	60	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Tetrachloroethene	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Toluene	8	J	ug/l	30	3	J	ug/l	5	5	U	ug/l	5	32		ug/l	25
1,1,2,2-Tetrachloroethane	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Chlorobenzene	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Ethyl Benzene	6	J	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	13	J	ug/l	25
Styrene	30	U	ug/l	30	5	U	ug/l	5	5	U	ug/l	5	25	U	ug/l	25
Xylenes (total)	39		ug/l	30	26		ug/l	5	2	J	ug/l	5	60		ug/l	25
CLP SEMIVOLATILES																
Phenol	11		ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzyl Alcohol	-				-				-				-			
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroisopropyl) ether	-				-				-				-			
4-Methylphenol	100		ug/l	10	10	U	ug/l	10	10	U	ug/l	10	23		ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:	20198009				20198006				20198004				20198005			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEF-3-3				CEF-3-4				CEF-3-5				CEF-3-6			
Collect Date:	19-NOV-91				19-NOV-91				19-NOV-91				19-NOV-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzoic Acid	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Naphthalene	52		ug/l	10	66		ug/l	10	6	J	ug/l	10	130		ug/l	10
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	40	J	ug/l	10	38	J	ug/l	10	4	J	ug/l	10	70	J	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50
4-Nitrophenol	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	2	J	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Nitroaniline	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50
4,6-Dinitro-2-methylphenol	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50	50	U	ug/l	50
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3'-Dichlorobenzidine	-				-				-				-			
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	7	J	ug/l	10	2	J	ug/l	10	15	J	ug/l	10	6	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:	20198009				20198006				20198004				20198005			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEF-3-3				CEF-3-4				CEF-3-5				CEF-3-6			
Collect Date:	19-NOV-91				19-NOV-91				19-NOV-91				19-NOV-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS																
alpha-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.11	J	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Heptachlor	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Aldrin	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Heptachlor epoxide	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Endosulfan I	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4'-DDE	-				-				-				-			
Endrin	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endosulfan II	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4'-DDD	-				-				-				-			
Endosulfan sulfate	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4'-DDT	-				-				-				-			
Methoxychlor	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
alpha Chlordane	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
gamma-Chlordane	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Toxaphene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1016	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1221	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1232	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1242	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1248	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1254	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
CLP METALS AND CYANIDE																
Aluminum	11000		ug/l	200	111000		ug/l	200	11100		ug/l	200	24900		ug/l	200
Antimony	40	U	ug/l	60	40	U	ug/l	60	40	U	ug/l	60	40	U	ug/l	60
Arsenic	5.5	J	ug/l	10	5.5	J	ug/l	10	1.4	J	ug/l	10	7.2	J	ug/l	10
Barium	36.8	J	ug/l	200	122	J	ug/l	200	19.3	J	ug/l	200	29.4	J	ug/l	200
Beryllium	.1	U	ug/l	5	.44	J	ug/l	5	.1	U	ug/l	5	.1	U	ug/l	5
Cadmium	1.6	U	ug/l	5	1.6	U	ug/l	5	1.6	U	ug/l	5	1.6	U	ug/l	5
Calcium	30800		ug/l	5000	69400		ug/l	5000	14200		ug/l	5000	55300		ug/l	5000
Chromium	8.3	J	ug/l	10	81		ug/l	10	14.1		ug/l	10	27.1		ug/l	10
Cobalt	5.1	U	ug/l	50	5.7	UJ	ug/l	50	8.2	UJ	ug/l	50	5.3	UJ	ug/l	50
Copper	1.4	UJ	ug/l	25	17.7	J	ug/l	25	1.4	UJ	ug/l	25	1.6	J	ug/l	25
Iron	11500		ug/l	100	21200		ug/l	100	3340		ug/l	100	27300		ug/l	100
Lead	1.8	J	ug/l	5	12.3		ug/l	5	3.3		ug/l	5	3.2		ug/l	5
Magnesium	7760		ug/l	5000	3110	J	ug/l	5000	7600		ug/l	5000	2450	J	ug/l	5000
Manganese	545		ug/l	15	143		ug/l	15	11.1	J	ug/l	15	54.9		ug/l	15
Mercury	.16	U	ug/l	.2	.16	U	ug/l	.2	.16	U	ug/l	.2	.16	U	ug/l	.2
Nickel	7	U	ug/l	40	15.5	J	ug/l	40	7	U	ug/l	40	9.9	J	ug/l	40
Potassium	2530	J	ug/l	5000	6300		ug/l	5000	1430	J	ug/l	5000	1220	J	ug/l	5000
Selenium	1.1	U	ug/l	5	1.1	UJ	ug/l	5	1.1	U	ug/l	5	1.1	U	ug/l	5
Silver	2.3	U	ug/l	10	2.3	U	ug/l	10	2.3	U	ug/l	10	2.3	U	ug/l	10
Sodium	5500	J	ug/l	5000	6520	J	ug/l	5000	6010	J	ug/l	5000	3630	UJ	ug/l	5000
Thallium	1.4	U	ug/l	10	1.4	U	ug/l	10	1.4	U	ug/l	10	1.4	U	ug/l	10
Vanadium	8.5	J	ug/l	50	56.5		ug/l	50	9.6	J	ug/l	50	16.6	J	ug/l	50

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:	20198009				20198006				20198004				20198005			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEF-3-3				CEF-3-4				CEF-3-5				CEF-3-6			
Collect Date:	19-NOV-91				19-NOV-91				19-NOV-91				19-NOV-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Zinc	4.2	J	ug/l	20	36.4		ug/l	20	4.6	J	ug/l	20	19.7	J	ug/l	20
Cyanide	1.8	U	ug/l	10	2.4	J	ug/l	10	1.8	U	ug/l	10	1.8	U	ug/l	10
TOC																
Total organic carbon	-				-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:	20198008				20253012				20253010				20253002			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEF-3-7				CEF-3-7D				CEF-3-7DD				CEF-3-8			
Collect Date:	19-NOV-91				22-NOV-91				22-NOV-91				21-NOV-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS																
Chloromethane	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Bromomethane	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Vinyl Chloride	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chloroethane	7	J	ug/l	20	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Methylene Chloride	11	U	ug/l	10	10	U	ug/l	5	8	U	ug/l	5	5	U	ug/l	5
Acetone	180	U	ug/l	20	10	U	ug/l	10	14	U	ug/l	10	13	U	ug/l	10
Carbon disulfide	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
1,1-Dichloroethene	77		ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
1,1-Dichloroethane	120		ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
1,2-Dichloroethene (total)	3	J	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Chloroform	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
1,2-Dichloroethane	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
2-Butanone	23	J	ug/l	20	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,1,1-Trichloroethane	370		ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Carbon tetrachloride	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Vinyl acetate	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Bromodichloromethane	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
1,2-Dichloropropane	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
cis-1,3-Dichloropropene	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Trichloroethene	93		ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Dibromochloromethane	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
1,1,2-Trichloroethane	2	J	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Benzene	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
trans-1,3-Dichloropropene	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Bromoform	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
4-Methyl-2-pentanone	2	J	ug/l	20	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Hexanone	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Tetrachloroethene	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Toluene	73		ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
1,1,2,2-Tetrachloroethane	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Chlorobenzene	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Ethyl Benzene	8	J	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Styrene	10	U	ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Xylenes (total)	45		ug/l	10	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
CLP SEMIVOLATILES																
Phenol	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:	20198008				20253012				20253010				20253002			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEF-3-7				CEF-3-7D				CEF-3-7DD				CEF-3-8			
Collect Date:	19-NOV-91				22-NOV-91				22-NOV-91				21-NOV-91			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,4-Dichlorobenzene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Benzyl Alcohol	-				-				-				-			
1,2-Dichlorobenzene	41		ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroisopropyl) ether	-				-				-				-			
4-Methylphenol	92		ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Benzoic Acid	50	U	ug/l	50	100	U	ug/l	100	50	U	ug/l	50	50	U	ug/l	50
bis(2-Chloroethoxy) methane	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Naphthalene	75		ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	45	J	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	50	U	ug/l	50	100	U	ug/l	100	50	U	ug/l	50	50	U	ug/l	50
2-Chloronaphthalene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	50	U	ug/l	50	100	U	ug/l	100	50	U	ug/l	50	50	U	ug/l	50
Dimethylphthalate	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	50	U	ug/l	50	100	U	ug/l	100	50	U	ug/l	50	50	U	ug/l	50
Acenaphthene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	50	U	ug/l	50	100	U	ug/l	100	50	U	ug/l	50	50	U	ug/l	50
4-Nitrophenol	50	U	ug/l	50	100	U	ug/l	100	50	U	ug/l	50	50	U	ug/l	50
Dibenzofuran	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
4-Nitroaniline	50	U	ug/l	50	100	U	ug/l	100	50	U	ug/l	50	50	U	ug/l	50
4,6-Dinitro-2-methylphenol	50	U	ug/l	50	100	U	ug/l	100	50	U	ug/l	50	50	U	ug/l	50
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	50	U	ug/l	50	100	U	ug/l	100	50	U	ug/l	50	50	U	ug/l	50
Phenanthrene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	20	U	ug/l	20	2	J	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
3,3'-Dichlorobenzidine	-				-				-				-			
Benzo (a) anthracene	10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

	Lab Sample Number:	20198008				20253012				20253010				20253002			
	Site	CECIL				CECIL				CECIL				CECIL			
	Locator	CEF-3-7				CEF-3-7D				CEF-3-7DD				CEF-3-8			
	Collect Date:	19-NOV-91				22-NOV-91				22-NOV-91				21-NOV-91			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Chrysene		10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate		3	J	ug/l	10	310		ug/l	20	3	J	ug/l	10	10	U	ug/l	10
Di-n-octylphthalate		10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene		10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene		10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene		10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene		10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene		10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene		10	U	ug/l	10	20	U	ug/l	20	10	U	ug/l	10	10	U	ug/l	10
CLP PESTICIDES/PCBS																	
alpha-BHC		.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC		.16	J	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
delta-BHC		.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)		.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor		.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.03	U	ug/l	.05
Aldrin		.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide		.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Endosulfan I		.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Dieldrin		.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.02	UJ	ug/l	.1
4,4'-DDE		-				-				-				-			
Endrin		.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.06	UJ	ug/l	.1
Endosulfan II		.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.04	UJ	ug/l	.1
4,4'-DDD		-				-				-				-			
Endosulfan sulfate		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4'-DDT		-				-				-				-			
Methoxychlor		.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Endrin ketone		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
alpha Chlordane		.5	U	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
gamma-Chlordane		.5	U	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Toxaphene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1016		.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1221		.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1232		.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1242		.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1248		.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Aroclor-1254		1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260		1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
CLP METALS AND CYANIDE																	
Aluminum		33700		ug/l	200	18200		ug/l	200	603	UJ	ug/l	200	70400		ug/l	200
Antimony		40	U	ug/l	60	40	UJ	ug/l	60	40	UJ	ug/l	60	40	UJ	ug/l	60
Arsenic		3.4	J	ug/l	10	6.7	J	ug/l	10	.89	J	ug/l	10	1.6	J	ug/l	10
Barium		32.9	J	ug/l	200	35.5	J	ug/l	200	64.6	J	ug/l	200	69.3	J	ug/l	200
Beryllium		.11	J	ug/l	5	.83	J	ug/l	5	.82	J	ug/l	5	.76	J	ug/l	5
Cadmium		1.6	U	ug/l	5	1.6	U	ug/l	5	1.6	U	ug/l	5	1.6	U	ug/l	5
Calcium		8280		ug/l	5000	7720		ug/l	5000	67500		ug/l	5000	3110	J	ug/l	5000
Chromium		20.6		ug/l	10	18.7		ug/l	10	1.9	U	ug/l	10	49.1		ug/l	10
Cobalt		5.9	UJ	ug/l	50	17	UJ	ug/l	50	7.8	UJ	ug/l	50	6.1	UJ	ug/l	50
Copper		1.4	UJ	ug/l	25	3.2	J	ug/l	25	1.6	J	ug/l	25	11.2	J	ug/l	25
Iron		11700		ug/l	100	5310		ug/l	100	88.6	UJ	ug/l	100	7210		ug/l	100
Lead		3.5		ug/l	5	7.2		ug/l	5	.69	U	ug/l	5	12.3		ug/l	5

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

	Lab Sample Number:	20198008				20253012				20253010				20253002			
	Site	CECIL				CECIL				CECIL				CECIL			
	Locator	CEF-3-7				CEF-3-7D				CEF-3-7DD				CEF-3-8			
	Collect Date:	19-NOV-91				22-NOV-91				22-NOV-91				21-NOV-91			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Magnesium		2740	J	ug/l	5000	1260	J	ug/l	5000	3870	J	ug/l	5000	2040	J	ug/l	5000
Manganese		264		ug/l	15	25.1	J	ug/l	15	7	J	ug/l	15	64.5	J	ug/l	15
Mercury		.16	U	ug/l	.2	.16	U	ug/l	.2	.16	U	ug/l	.2	.23		ug/l	.2
Nickel		7	U	ug/l	40	23.2	J	ug/l	40	7	U	ug/l	40	19	J	ug/l	40
Potassium		1510	J	ug/l	5000	982	J	ug/l	5000	10100		ug/l	5000	1490	J	ug/l	5000
Selenium		1.1	U	ug/l	5	1.1	UJ	ug/l	5	1.1	UJ	ug/l	5	1.1	UJ	ug/l	5
Silver		2.3	U	ug/l	10	2.3	U	ug/l	10	2.3	U	ug/l	10	2.3	U	ug/l	10
Sodium		4920	UJ	ug/l	5000	4510	J	ug/l	5000	13400	J	ug/l	5000	8790	J	ug/l	5000
Thallium		1.4	U	ug/l	10	1.4	U	ug/l	10	1.4	U	ug/l	10	1.4	U	ug/l	10
Vanadium		20.1	J	ug/l	50	17.1	J	ug/l	50	3.2	J	ug/l	50	33.1	J	ug/l	50
Zinc		9.3	J	ug/l	20	194		ug/l	20	10	UJ	ug/l	20	24.5	UJ	ug/l	20
Cyanide		1.8	U	ug/l	10	1.8	UJ	ug/l	10	1.8	UJ	ug/l	10	1.8	UJ	ug/l	10
TOC																	
Total organic carbon		-				-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:	20198007
Site	CECIL
Locator	CEF-3-9
Collect Date:	19-NOV-91

	VALUE	QUAL	UNITS	DL
CLP VOLATILE COMPOUNDS				
Chloromethane	10	U	ug/l	10
Bromomethane	10	U	ug/l	10
Vinyl Chloride	10	U	ug/l	10
Chloroethane	22		ug/l	10
Methylene Chloride	5	U	ug/l	5
Acetone	36	U	ug/l	10
Carbon disulfide	5	U	ug/l	5
1,1-Dichloroethene	9		ug/l	5
1,1-Dichloroethane	58		ug/l	5
1,2-Dichloroethene (total)	5	U	ug/l	5
Chloroform	5	U	ug/l	5
1,2-Dichloroethane	5	U	ug/l	5
2-Butanone	20	J	ug/l	10
1,1,1-Trichloroethane	24		ug/l	5
Carbon tetrachloride	5	U	ug/l	5
Vinyl acetate	10	U	ug/l	10
Bromodichloromethane	5	U	ug/l	5
1,2-Dichloropropane	5	U	ug/l	5
cis-1,3-Dichloropropene	5	U	ug/l	5
Trichloroethene	5	U	ug/l	5
Dibromochloromethane	5	U	ug/l	5
1,1,2-Trichloroethane	5	U	ug/l	5
Benzene	5	U	ug/l	5
trans-1,3-Dichloropropene	5	U	ug/l	5
Bromoform	5	U	ug/l	5
4-Methyl-2-pentanone	10	U	ug/l	10
2-Hexanone	10	U	ug/l	10
Tetrachloroethene	5	U	ug/l	5
Toluene	3	J	ug/l	5
1,1,2,2-Tetrachloroethane	5	U	ug/l	5
Chlorobenzene	5	U	ug/l	5
Ethyl Benzene	5		ug/l	5
Styrene	5	U	ug/l	5
Xylenes (total)	27		ug/l	5
CLP SEMIVOLATILES				
Phenol	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:	20198007
Site	CECIL
Locator	CEF-3-9
Collect Date:	19-NOV-91

	VALUE	QUAL	UNITS	DL
1,4-Dichlorobenzene	10	U	ug/l	10
Benzyl Alcohol	-			
1,2-Dichlorobenzene	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10
bis(2-Chloroisopropyl) ether	-			
4-Methylphenol	10		ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10
Isophorone	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10
Benzoic Acid	50	U	ug/l	50
bis(2-Chloroethoxy) methane	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10
Naphthalene	87		ug/l	10
4-Chloroaniline	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10
2-Methylnaphthalene	45	J	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10
2,4,5-Trichlorophenol	50	U	ug/l	50
2-Chloronaphthalene	10	U	ug/l	10
2-Nitroaniline	50	U	ug/l	50
Dimethylphthalate	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10
3-Nitroaniline	50	U	ug/l	50
Acenaphthene	10	U	ug/l	10
2,4-Dinitrophenol	50	U	ug/l	50
4-Nitrophenol	50	U	ug/l	50
Dibenzofuran	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10
Fluorene	10	U	ug/l	10
4-Nitroaniline	50	U	ug/l	50
4,6-Dinitro-2-methylphenol	50	U	ug/l	50
N-Nitrosodiphenylamine (1)	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10
Pentachlorophenol	50	U	ug/l	50
Phenanthrene	10	U	ug/l	10
Anthracene	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10
Pyrene	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10
3,3'-Dichlorobenzidine	-			
Benzo (a) anthracene	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:	20198007			
Site	CECIL			
Locator	CEF-3-9			
Collect Date:	19-NOV-91			
	VALUE	QUAL	UNITS	DL
Chrysene	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10
CLP PESTICIDES/PCBS				
alpha-BHC	.05	U	ug/l	.05
beta-BHC	.1	J	ug/l	.05
delta-BHC	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	U	ug/l	.05
Heptachlor	.05	U	ug/l	.05
Aldrin	.05	U	ug/l	.05
Heptachlor epoxide	.05	U	ug/l	.05
Endosulfan I	.05	U	ug/l	.05
Dieldrin	.1	U	ug/l	.1
4,4'-DDE	-			
Endrin	.1	U	ug/l	.1
Endosulfan II	.1	U	ug/l	.1
4,4'-DDD	-			
Endosulfan sulfate	.1	U	ug/l	.1
4,4'-DDT	-			
Methoxychlor	.5	U	ug/l	.5
Endrin ketone	.1	U	ug/l	.1
alpha Chlordane	.5	U	ug/l	.5
gamma-Chlordane	.5	U	ug/l	.5
Toxaphene	1	U	ug/l	1
Aroclor-1016	.5	U	ug/l	.5
Aroclor-1221	.5	U	ug/l	.5
Aroclor-1232	.5	U	ug/l	.5
Aroclor-1242	.5	U	ug/l	.5
Aroclor-1248	.5	U	ug/l	.5
Aroclor-1254	1	U	ug/l	1
Aroclor-1260	1	U	ug/l	1
CLP METALS AND CYANIDE				
Aluminum	84300		ug/l	200
Antimony	40	U	ug/l	60
Arsenic	4.5	J	ug/l	10
Barium	91.6	J	ug/l	200
Beryllium	.31	J	ug/l	5
Cadmium	1.6	U	ug/l	5
Calcium	65000		ug/l	5000
Chromium	70.2		ug/l	10
Cobalt	6	UJ	ug/l	50
Copper	14.6	J	ug/l	25
Iron	18100		ug/l	100
Lead	10.4		ug/l	5

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
1991 DATA -- GROUNDWATER

Lab Sample Number:		20198007			
Site		CECIL			
Locator		CEF-3-9			
Collect Date:		19-NOV-91			
	VALUE	QUAL	UNITS	DL	
Magnesium	2780	J	ug/l	5000	
Manganese	138		ug/l	15	
Mercury	.16	U	ug/l	.2	
Nickel	14.4	J	ug/l	40	
Potassium	5960		ug/l	5000	
Selenium	1.1	U	ug/l	5	
Silver	2.3	U	ug/l	10	
Sodium	6530	J	ug/l	5000	
Thallium	1.4	U	ug/l	10	
Vanadium	42.9	J	ug/l	50	
Zinc	31		ug/l	20	
Cyanide	2.9	J	ug/l	10	
TOC					
Total organic carbon					

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FN2				A1DVR				A1DVV				A1DW0			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS1				CF3SS2				CF3SS3				CF3SS4			
Collect Date:	20-NOV-94				18-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Bromomethane	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Vinyl chloride	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Chloroethane	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Methylene chloride	4	J	ug/kg	12	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	12	UJ	ug/kg	12	12	UJ	ug/kg	12	12	UJ	ug/kg	12	12	UJ	ug/kg	12
Carbon disulfide	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
1,1,1-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
2-Hexanone	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Tetrachloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	3	J	ug/kg	12	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- VOLATILES

Lab Sample Number:	A1DW2				A1DW4				A1FDQ				A1FDX			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS5				CF3SS6				CF3SS7				CF3SS8			
Collect Date:	18-NOV-94				18-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	12	UJ	ug/kg	12	12	UJ	ug/kg	12	14	UJ	ug/kg	14
Bromomethane	12	U	ug/kg	12	12	UJ	ug/kg	12	12	UJ	ug/kg	12	14	UJ	ug/kg	14
Vinyl chloride	12	U	ug/kg	12	12	UJ	ug/kg	12	12	UJ	ug/kg	12	14	UJ	ug/kg	14
Chloroethane	12	U	ug/kg	12	12	UJ	ug/kg	12	12	UJ	ug/kg	12	14	UJ	ug/kg	14
Methylene chloride	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Acetone	13	UJ	ug/kg	13	14	UJ	ug/kg	14	21	UJ	ug/kg	21	4	J	ug/kg	14
Carbon disulfide	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
1,1-Dichloroethene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
1,1-Dichloroethane	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
1,2-Dichloroethene (total)	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Chloroform	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
1,2-Dichloroethane	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
2-Butanone	12	U	ug/kg	12	12	UJ	ug/kg	12	3	J	ug/kg	12	14	UJ	ug/kg	14
1,1,1-Trichloroethane	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Carbon tetrachloride	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Bromodichloromethane	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
1,2-Dichloropropane	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Trichloroethene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Dibromochloromethane	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
1,1,2-Trichloroethane	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Benzene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Bromoform	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
4-Methyl-2-pentanone	12	U	ug/kg	12	12	UJ	ug/kg	12	12	UJ	ug/kg	12	14	UJ	ug/kg	14
2-Hexanone	12	U	ug/kg	12	12	UJ	ug/kg	12	12	UJ	ug/kg	12	14	UJ	ug/kg	14
Tetrachloroethene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Toluene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Chlorobenzene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Ethylbenzene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Styrene	6	U	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	7	UJ	ug/kg	7
Xylenes (total)	6	U	ug/kg	6	6	UJ	ug/kg	6	3	J	ug/kg	12	7	UJ	ug/kg	7

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FE4				A1FEE				A1FEH				A1FF5			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS9				CF3SS10				CF3SS10D				CF3SS11			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	15	U	ug/kg	15
Bromomethane	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	15	U	ug/kg	15
Vinyl chloride	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	15	U	ug/kg	15
Chloroethane	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	15	U	ug/kg	15
Methylene chloride	3	J	ug/kg	12	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Acetone	31	U	ug/kg	31	15	U	ug/kg	15	12	U	ug/kg	12	15	U	ug/kg	15
Carbon disulfide	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
1,1-Dichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
1,1-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
1,2-Dichloroethene (total)	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Chloroform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
1,2-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
2-Butanone	2	J	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	15	U	ug/kg	15
1,1,1-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Carbon tetrachloride	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Bromodichloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
1,2-Dichloropropane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Trichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Dibromochloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
1,1,2-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Benzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Bromoform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
4-Methyl-2-pentanone	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	15	U	ug/kg	15
2-Hexanone	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	15	U	ug/kg	15
Tetrachloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Toluene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	3	J	ug/kg	15
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Chlorobenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Ethylbenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Styrene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	7	U	ug/kg	7
Xylenes (total)	6	U	ug/kg	6	9		ug/kg	11	7		ug/kg	12	7	U	ug/kg	7

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FFA				A1FFE				A1FFP				A1FFR			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS12				CF3SS13				CF3SS14				CF3SS15			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	15	U	ug/kg	15	15	U	ug/kg	15	13	U	ug/kg	13	13	U	ug/kg	13
Bromomethane	15	U	ug/kg	15	15	U	ug/kg	15	13	U	ug/kg	13	13	U	ug/kg	13
Vinyl chloride	15	U	ug/kg	15	15	U	ug/kg	15	13	U	ug/kg	13	13	U	ug/kg	13
Chloroethane	15	U	ug/kg	15	15	U	ug/kg	15	13	U	ug/kg	13	13	U	ug/kg	13
Methylene chloride	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Acetone	20	U	ug/kg	20	15	U	ug/kg	15	19	U	ug/kg	19	13	U	ug/kg	13
Carbon disulfide	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
1,1-Dichloroethene	3	J	ug/kg	15	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
1,1-Dichloroethane	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
1,2-Dichloroethene (total)	7	U	ug/kg	7	4	J	ug/kg	15	6	U	ug/kg	6	7	U	ug/kg	7
Chloroform	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
1,2-Dichloroethane	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
2-Butanone	7	U	ug/kg	7	15	U	ug/kg	15	13	U	ug/kg	13	13	U	ug/kg	13
1,1,1-Trichloroethane	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Carbon tetrachloride	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Bromodichloromethane	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
1,2-Dichloropropane	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
cis-1,3-Dichloropropene	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Trichloroethene	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Dibromochloromethane	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
1,1,2-Trichloroethane	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Benzene	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
trans-1,3-Dichloropropene	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Bromoform	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
4-Methyl-2-pentanone	15	U	ug/kg	15	15	U	ug/kg	15	13	U	ug/kg	13	13	U	ug/kg	13
2-Hexanone	15	U	ug/kg	15	15	U	ug/kg	15	13	U	ug/kg	13	13	U	ug/kg	13
Tetrachloroethene	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Toluene	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
1,1,2,2-Tetrachloroethane	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Chlorobenzene	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Ethylbenzene	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Styrene	7	U	ug/kg	7	7	U	ug/kg	7	6	U	ug/kg	6	7	U	ug/kg	7
Xylenes (total)	7	U	ug/kg	7	7	U	ug/kg	7	4	J	ug/kg	13	3	J	ug/kg	13

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FFW			A1FG1			A1FG3			A1FG8		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SS16			CF3SS17			CF3SS18			CF3SS19		
Collect Date:	19-NOV-94			19-NOV-94			19-NOV-94			19-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12
Bromomethane	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12
Vinyl chloride	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12
Chloroethane	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12
Methylene chloride	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Acetone	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12
Carbon disulfide	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,1-Dichloroethene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,1-Dichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,2-Dichloroethene (total)	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Chloroform	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,2-Dichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
2-Butanone	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12
1,1,1-Trichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Carbon tetrachloride	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Bromodichloromethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,2-Dichloropropane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
cis-1,3-Dichloropropene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Trichloroethene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Dibromochloromethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,1,2-Trichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Benzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
trans-1,3-Dichloropropene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Bromoform	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
4-Methyl-2-pentanone	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12
2-Hexanone	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12	12 U	ug/kg	12
Tetrachloroethene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Toluene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,1,2,2-Tetrachloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Chlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Ethylbenzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Styrene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Xylenes (total)	4 J	ug/kg	12	3 J	ug/kg	12	5 J	ug/kg	12	6 U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FGD				A1FGF				A1FGM				A1FGW			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS20				CF3SS20D				CF3SS21				CF3SS22			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	14	U	ug/kg	14	13	U	ug/kg	13	13	U	ug/kg	13
Bromomethane	12	U	ug/kg	12	14	U	ug/kg	14	13	U	ug/kg	13	13	U	ug/kg	13
Vinyl chloride	12	U	ug/kg	12	14	U	ug/kg	14	13	U	ug/kg	13	13	U	ug/kg	13
Chloroethane	12	U	ug/kg	12	14	U	ug/kg	14	13	U	ug/kg	13	13	U	ug/kg	13
Methylene chloride	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	13	U	ug/kg	13	19	U	ug/kg	19	13	U	ug/kg	13	13	U	ug/kg	13
Carbon disulfide	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	12	U	ug/kg	12	14	U	ug/kg	14	13	U	ug/kg	13	13	U	ug/kg	13
1,1,1-Trichloroethane	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	12	U	ug/kg	12	14	U	ug/kg	14	13	U	ug/kg	13	13	U	ug/kg	13
2-Hexanone	12	U	ug/kg	12	14	U	ug/kg	14	13	U	ug/kg	13	13	U	ug/kg	13
Tetrachloroethene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	7	U	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	6	J	ug/kg	14	3	J	ug/kg	13	4	J	ug/kg	13

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FH5				A1FH9				A1FKJ			
Site	CECIL8				CECIL8				CECIL8			
Locator	CF3SS23				CF3SS24				CF3SS24D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	14	U	ug/kg	14	83	U	ug/kg	83	89	U	ug/kg	89
Bromomethane	14	U	ug/kg	14	83	U	ug/kg	83	89	U	ug/kg	89
Vinyl chloride	14	U	ug/kg	14	83	U	ug/kg	83	89	U	ug/kg	89
Chloroethane	14	U	ug/kg	14	83	U	ug/kg	83	89	U	ug/kg	89
Methylene chloride	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Acetone	14	U	ug/kg	14	83	U	ug/kg	83	89	U	ug/kg	89
Carbon disulfide	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
1,1-Dichloroethene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
1,1-Dichloroethane	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
1,2-Dichloroethene (total)	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Chloroform	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
1,2-Dichloroethane	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
2-Butanone	14	U	ug/kg	14	83	U	ug/kg	83	89	U	ug/kg	89
1,1,1-Trichloroethane	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Carbon tetrachloride	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Bromodichloromethane	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
1,2-Dichloropropane	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
cis-1,3-Dichloropropene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Trichloroethene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Dibromochloromethane	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
1,1,2-Trichloroethane	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Benzene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
trans-1,3-Dichloropropene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Bromoform	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
4-Methyl-2-pentanone	14	U	ug/kg	14	83	U	ug/kg	83	89	U	ug/kg	89
2-Hexanone	14	U	ug/kg	14	83	U	ug/kg	83	89	U	ug/kg	89
Tetrachloroethene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Toluene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
1,1,2,2-Tetrachloroethane	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Chlorobenzene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Ethylbenzene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Styrene	7	U	ug/kg	7	42	U	ug/kg	42	45	U	ug/kg	45
Xylenes (total)	3	J	ug/kg	14	42	U	ug/kg	42	45	U	ug/kg	45

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FN2				A1FN2RE				A1DVR				A1DVV			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS1				CF3SS1RE				CF3SS2				CF3SS3			
Collect Date:	20-NOV-94				20-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
bis(2-Chloroethyl) ether	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2-Chlorophenol	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
1,3-Dichlorobenzene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
1,4-Dichlorobenzene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
1,2-Dichlorobenzene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2-Methylphenol	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2,2-oxybis(1-Chloropropane)	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
4-Methylphenol	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
N-Nitroso-di-n-propylamine	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Hexachloroethane	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Nitrobenzene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Isophorone	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2-Nitrophenol	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2,4-Dimethylphenol	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
bis(2-Chloroethoxy) methane	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2,4-Dichlorophenol	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
1,2,4-Trichlorobenzene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Naphthalene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
4-Chloroaniline	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Hexachlorobutadiene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
4-Chloro-3-methylphenol	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2-Methylnaphthalene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Hexachlorocyclopentadiene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2,4,6-Trichlorophenol	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2,4,5-Trichlorophenol	940	U	ug/kg	940	940	UJ	ug/kg	940	960	U	ug/kg	960	950	U	ug/kg	950
2-Chloronaphthalene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2-Nitroaniline	940	U	ug/kg	940	940	UJ	ug/kg	940	960	U	ug/kg	960	950	U	ug/kg	950
Dimethylphthalate	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Acenaphthylene	390	U	ug/kg	390	390	UJ	ug/kg	390	170	J	ug/kg	390	390	U	ug/kg	390
2,6-Dinitrotoluene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
3-Nitroaniline	940	U	ug/kg	940	940	UJ	ug/kg	940	960	U	ug/kg	960	950	U	ug/kg	950
Acenaphthene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2,4-Dinitrophenol	940	U	ug/kg	940	940	UJ	ug/kg	940	960	U	ug/kg	960	950	U	ug/kg	950
4-Nitrophenol	940	U	ug/kg	940	940	UJ	ug/kg	940	960	U	ug/kg	960	950	U	ug/kg	950
Dibenzofuran	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
2,4-Dinitrotoluene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Diethylphthalate	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
4-Chlorophenyl-phenylether	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Fluorene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
4-Nitroaniline	940	U	ug/kg	940	940	UJ	ug/kg	940	960	U	ug/kg	960	950	U	ug/kg	950
4,6-Dinitro-2-methylphenol	940	U	ug/kg	940	940	UJ	ug/kg	940	960	U	ug/kg	960	950	U	ug/kg	950
N-Nitrosodiphenylamine (1)	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
4-Bromophenyl-phenylether	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Hexachlorobenzene	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Pentachlorophenol	940	U	ug/kg	940	940	UJ	ug/kg	940	960	U	ug/kg	960	950	U	ug/kg	950
Phenanthrene	390	U	ug/kg	390	390	UJ	ug/kg	390	44	J	ug/kg	390	390	U	ug/kg	390
Anthracene	390	U	ug/kg	390	390	UJ	ug/kg	390	59	J	ug/kg	390	390	U	ug/kg	390
Carbazole	390	U	ug/kg	390	390	UJ	ug/kg	390	24	J	ug/kg	390	390	U	ug/kg	390
Di-n-butylphthalate	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	1400		ug/kg	390

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FN2				A1FN2RE				A1DVR				A1DVV			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS1				CF3SS1RE				CF3SS2				CF3SS3			
Collect Date:	20-NOV-94				20-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	390	U	ug/kg	390	390	UJ	ug/kg	390	720		ug/kg	390	390	U	ug/kg	390
Pyrene	390	U	ug/kg	390	390	UJ	ug/kg	390	890		ug/kg	390	390	U	ug/kg	390
Butylbenzylphthalate	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
3,3-Dichlorobenzidine	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Benzo (a) anthracene	390	U	ug/kg	390	390	UJ	ug/kg	390	620		ug/kg	390	390	U	ug/kg	390
Chrysene	390	U	ug/kg	390	390	UJ	ug/kg	390	700		ug/kg	390	390	U	ug/kg	390
bis(2-Ethylhexyl) phthalate	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Di-n-octylphthalate	390	U	ug/kg	390	390	UJ	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	390
Benzo (b) fluoranthene	390	U	ug/kg	390	390	UJ	ug/kg	390	870		ug/kg	390	390	U	ug/kg	390
Benzo (k) fluoranthene	390	U	ug/kg	390	390	UJ	ug/kg	390	280	J	ug/kg	390	390	U	ug/kg	390
Benzo (a) pyrene	390	U	ug/kg	390	390	UJ	ug/kg	390	440		ug/kg	390	390	U	ug/kg	390
Indeno (1,2,3-cd) pyrene	390	U	ug/kg	390	390	UJ	ug/kg	390	330	J	ug/kg	390	390	U	ug/kg	390
Dibenz (a,h) anthracene	390	U	ug/kg	390	390	UJ	ug/kg	390	100	J	ug/kg	390	390	U	ug/kg	390
Benzo (g,h,i) perylene	390	U	ug/kg	390	390	UJ	ug/kg	390	270	J	ug/kg	390	390	U	ug/kg	390

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1DW0				A1DW2				A1DW4				A1FDQ			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS4				CF3SS5				CF3SS6				CF3SS7			
Collect Date:	18-NOV-94				18-NOV-94				18-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
bis(2-Chloroethyl) ether	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2-Chlorophenol	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
1,3-Dichlorobenzene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
1,4-Dichlorobenzene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
1,2-Dichlorobenzene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2-Methylphenol	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2,2-oxybis(1-Chloropropane)	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
4-Methylphenol	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
N-Nitroso-di-n-propylamine	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Hexachloroethane	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Nitrobenzene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Isophorone	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2-Nitrophenol	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2,4-Dimethylphenol	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
bis(2-Chloroethoxy) methane	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2,4-Dichlorophenol	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
1,2,4-Trichlorobenzene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Naphthalene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
4-Chloroaniline	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Hexachlorobutadiene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
4-Chloro-3-methylphenol	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2-Methylnaphthalene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Hexachlorocyclopentadiene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2,4,6-Trichlorophenol	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2,4,5-Trichlorophenol	980	U	ug/kg	980	950	U	ug/kg	950	990	U	ug/kg	990	860	UJ	ug/kg	860
2-Chloronaphthalene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2-Nitroaniline	980	U	ug/kg	980	950	U	ug/kg	950	990	U	ug/kg	990	860	UJ	ug/kg	860
Dimethylphthalate	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Acenaphthylene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2,6-Dinitrotoluene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
3-Nitroaniline	980	U	ug/kg	980	950	U	ug/kg	950	990	U	ug/kg	990	860	UJ	ug/kg	860
Acenaphthene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2,4-Dinitrophenol	980	U	ug/kg	980	950	U	ug/kg	950	990	U	ug/kg	990	860	UJ	ug/kg	860
4-Nitrophenol	980	U	ug/kg	980	950	U	ug/kg	950	990	U	ug/kg	990	860	UJ	ug/kg	860
Dibenzofuran	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
2,4-Dinitrotoluene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Diethylphthalate	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
4-Chlorophenyl-phenylether	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Fluorene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1DW0				A1DW2				A1DW4				A1FDQ			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS4				CF3SS5				CF3SS6				CF3SS7			
Collect Date:	18-NOV-94				18-NOV-94				18-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	980	U	ug/kg	980	950	U	ug/kg	950	990	U	ug/kg	990	860	UJ	ug/kg	860
4,6-Dinitro-2-methylphenol	980	U	ug/kg	980	950	U	ug/kg	950	990	U	ug/kg	990	860	UJ	ug/kg	860
N-Nitrosodiphenylamine (1)	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
4-Bromophenyl-phenylether	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Hexachlorobenzene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Pentachlorophenol	980	U	ug/kg	980	950	U	ug/kg	950	990	U	ug/kg	990	860	UJ	ug/kg	860
Phenanthrene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Anthracene	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Carbazole	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Di-n-butylphthalate	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Fluoranthene	400	U	ug/kg	400	390	U	ug/kg	390	47	J	ug/kg	410	29	J	ug/kg	350
Pyrene	400	U	ug/kg	400	390	U	ug/kg	390	55	J	ug/kg	410	23	J	ug/kg	350
Butylbenzylphthalate	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
3,3-Dichlorobenzidine	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Benzo (a) anthracene	400	U	ug/kg	400	390	U	ug/kg	390	44	J	ug/kg	410	350	UJ	ug/kg	350
Chrysene	400	U	ug/kg	400	390	U	ug/kg	390	69	J	ug/kg	410	22	J	ug/kg	350
bis(2-Ethylhexyl) phthalate	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Di-n-octylphthalate	400	U	ug/kg	400	390	U	ug/kg	390	410	U	ug/kg	410	350	UJ	ug/kg	350
Benzo (b) fluoranthene	400	U	ug/kg	400	390	U	ug/kg	390	150	J	ug/kg	410	30	J	ug/kg	350
Benzo (k) fluoranthene	400	U	ug/kg	400	390	U	ug/kg	390	85	J	ug/kg	410	350	UJ	ug/kg	350
Benzo (a) pyrene	400	U	ug/kg	400	390	U	ug/kg	390	120	J	ug/kg	410	23	J	ug/kg	350
Indeno (1,2,3-cd) pyrene	400	U	ug/kg	400	390	U	ug/kg	390	120	J	ug/kg	410	22	J	ug/kg	350
Dibenz (a,h) anthracene	400	U	ug/kg	400	390	U	ug/kg	390	32	J	ug/kg	410	350	UJ	ug/kg	350
Benzo (g,h,i) perylene	400	U	ug/kg	400	390	U	ug/kg	390	120	J	ug/kg	410	28	J	ug/kg	350

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FDX				A1FE4				A1FEE				A1FEH			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS8				CF3SS9				CF3SS10				CF3SS10D			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
bis(2-Chloroethyl) ether	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2-Chlorophenol	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
1,3-Dichlorobenzene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
1,4-Dichlorobenzene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
1,2-Dichlorobenzene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2-Methylphenol	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2,2-oxybis(1-Chloropropane)	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
4-Methylphenol	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
N-Nitroso-di-n-propylamine	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Hexachloroethane	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Nitrobenzene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Isophorone	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2-Nitrophenol	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2,4-Dimethylphenol	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
bis(2-Chloroethoxy) methane	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2,4-Dichlorophenol	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
1,2,4-Trichlorobenzene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Naphthalene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
4-Chloroaniline	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Hexachlorobutadiene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
4-Chloro-3-methylphenol	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2-Methylnaphthalene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Hexachlorocyclopentadiene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2,4,6-Trichlorophenol	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2,4,5-Trichlorophenol	1200	UJ	ug/kg	1200	860	U	ug/kg	860	920	U	ug/kg	920	940	U	ug/kg	940
2-Chloronaphthalene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2-Nitroaniline	1200	UJ	ug/kg	1200	860	U	ug/kg	860	920	U	ug/kg	920	940	U	ug/kg	940
Dimethylphthalate	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Acenaphthylene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2,6-Dinitrotoluene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
3-Nitroaniline	1200	UJ	ug/kg	1200	990	U	ug/kg	990	920	U	ug/kg	920	940	U	ug/kg	940
Acenaphthene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2,4-Dinitrophenol	1200	UJ	ug/kg	1200	990	U	ug/kg	990	920	U	ug/kg	920	940	U	ug/kg	940
4-Nitrophenol	1200	UJ	ug/kg	1200	990	U	ug/kg	990	920	U	ug/kg	920	940	U	ug/kg	940
Dibenzofuran	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
2,4-Dinitrotoluene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Diethylphthalate	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
4-Chlorophenyl-phenylether	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Fluorene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FDX				A1FE4				A1FEE				A1FEH			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS8				CF3SS9				CF3SS10				CF3SS10D			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1200	UJ	ug/kg	1200	990	U	ug/kg	990	920	U	ug/kg	920	940	U	ug/kg	940
4,6-Dinitro-2-methylphenol	1200	UJ	ug/kg	1200	990	U	ug/kg	990	920	U	ug/kg	920	940	U	ug/kg	940
N-Nitrosodiphenylamine (1)	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
4-Bromophenyl-phenylether	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Hexachlorobenzene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Pentachlorophenol	1200	UJ	ug/kg	1200	990	U	ug/kg	990	920	U	ug/kg	920	940	U	ug/kg	940
Phenanthrene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Anthracene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Carbazole	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Di-n-butylphthalate	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Fluoranthene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Pyrene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Butylbenzylphthalate	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
3,3-Dichlorobenzidine	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (a) anthracene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Chrysene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
bis(2-Ethylhexyl) phthalate	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Di-n-octylphthalate	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (b) fluoranthene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (k) fluoranthene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (a) pyrene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Indeno (1,2,3-cd) pyrene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Dibenz (a,h) anthracene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (g,h,i) perylene	480	UJ	ug/kg	480	410	U	ug/kg	410	380	U	ug/kg	380	390	U	ug/kg	390

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FF5				A1FFA				A1FFE				A1FFP			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS11				CF3SS12				CF3SS13				CF3SS14			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
bis(2-Chloroethyl) ether	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2-Chlorophenol	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
1,3-Dichlorobenzene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
1,4-Dichlorobenzene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
1,2-Dichlorobenzene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2-Methylphenol	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2,2-oxybis(1-Chloropropane)	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
4-Methylphenol	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
N-Nitroso-di-n-propylamine	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Hexachloroethane	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Nitrobenzene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Isophorone	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2-Nitrophenol	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2,4-Dimethylphenol	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
bis(2-Chloroethoxy) methane	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2,4-Dichlorophenol	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
1,2,4-Trichlorobenzene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Naphthalene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
4-Chloroaniline	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Hexachlorobutadiene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
4-Chloro-3-methylphenol	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2-Methylnaphthalene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Hexachlorocyclopentadiene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2,4,6-Trichlorophenol	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2,4,5-Trichlorophenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1000	U	ug/kg	1000
2-Chloronaphthalene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2-Nitroaniline	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1000	U	ug/kg	1000
Dimethylphthalate	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Acenaphthylene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2,6-Dinitrotoluene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
3-Nitroaniline	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1000	U	ug/kg	1000
Acenaphthene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2,4-Dinitrophenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1000	U	ug/kg	1000
4-Nitrophenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1000	U	ug/kg	1000
Dibenzofuran	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
2,4-Dinitrotoluene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Diethylphthalate	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
4-Chlorophenyl-phenylether	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Fluorene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FF5				A1FFA				A1FFE				A1FFP			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS11				CF3SS12				CF3SS13				CF3SS14			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1000	U	ug/kg	1000
4,6-Dinitro-2-methylphenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1000	U	ug/kg	1000
N-Nitrosodiphenylamine (1)	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
4-Bromophenyl-phenylether	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Hexachlorobenzene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Pentachlorophenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1200	U	ug/kg	1200	1000	U	ug/kg	1000
Phenanthrene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Anthracene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Carbazole	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Di-n-butylphthalate	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Fluoranthene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Pyrene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Butylbenzylphthalate	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
3,3-Dichlorobenzidine	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Benzo (a) anthracene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Chrysene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
bis(2-Ethylhexyl) phthalate	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Di-n-octylphthalate	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Benzo (b) fluoranthene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Benzo (k) fluoranthene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Benzo (a) pyrene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Indeno (1,2,3-cd) pyrene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Dibenz (a,h) anthracene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420
Benzo (g,h,i) perylene	480	U	ug/kg	480	480	U	ug/kg	480	480	U	ug/kg	480	420	U	ug/kg	420

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FFR				A1FFW				A1FG1				A1FG3			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS15				CF3SS16				CF3SS17				CF3SS18			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
bis(2-Chloroethyl) ether	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2-Chlorophenol	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
1,3-Dichlorobenzene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
1,4-Dichlorobenzene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
1,2-Dichlorobenzene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2-Methylphenol	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2,2-oxybis(1-Chloropropane)	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
4-Methylphenol	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
N-Nitroso-di-n-propylamine	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Hexachloroethane	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Nitrobenzene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Isophorone	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2-Nitrophenol	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2,4-Dimethylphenol	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
bis(2-Chloroethoxy) methane	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2,4-Dichlorophenol	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
1,2,4-Trichlorobenzene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Naphthalene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
4-Chloroaniline	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Hexachlorobutadiene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
4-Chloro-3-methylphenol	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2-Methylnaphthalene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Hexachlorocyclopentadiene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2,4,6-Trichlorophenol	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2,4,5-Trichlorophenol	1100	U	ug/kg	1100	1000	U	ug/kg	1000	960	U	ug/kg	960	940	U	ug/kg	940
2-Chloronaphthalene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2-Nitroaniline	1100	U	ug/kg	1100	1000	U	ug/kg	1000	960	U	ug/kg	960	940	U	ug/kg	940
Dimethylphthalate	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Acenaphthylene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2,6-Dinitrotoluene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
3-Nitroaniline	1100	U	ug/kg	1100	1000	U	ug/kg	1000	960	U	ug/kg	960	940	U	ug/kg	940
Acenaphthene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2,4-Dinitrophenol	1100	U	ug/kg	1100	1000	U	ug/kg	1000	960	U	ug/kg	960	940	U	ug/kg	940
4-Nitrophenol	1100	U	ug/kg	1100	1000	U	ug/kg	1000	960	U	ug/kg	960	940	U	ug/kg	940
Dibenzofuran	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
2,4-Dinitrotoluene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Diethylphthalate	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
4-Chlorophenyl-phenylether	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Fluorene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FFR				A1FFW				A1FG1				A1FG3			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS15				CF3SS16				CF3SS17				CF3SS18			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1100	U	ug/kg	1100	1000	U	ug/kg	1000	960	U	ug/kg	960	940	U	ug/kg	940
4,6-Dinitro-2-methylphenol	1100	U	ug/kg	1100	1000	U	ug/kg	1000	960	U	ug/kg	960	940	U	ug/kg	940
N-Nitrosodiphenylamine (1)	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
4-Bromophenyl-phenylether	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Hexachlorobenzene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Pentachlorophenol	1100	U	ug/kg	1100	1000	U	ug/kg	1000	960	U	ug/kg	960	940	U	ug/kg	940
Phenanthrene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Anthracene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Carbazole	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Di-n-butylphthalate	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Fluoranthene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Pyrene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Butylbenzylphthalate	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
3,3-Dichlorobenzidine	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Benzo (a) anthracene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Chrysene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
bis(2-Ethylhexyl) phthalate	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	180	J	ug/kg	390
Di-n-octylphthalate	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Benzo (b) fluoranthene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Benzo (k) fluoranthene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Benzo (a) pyrene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Indeno (1,2,3-cd) pyrene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Dibenz (a,h) anthracene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390
Benzo (g,h,i) perylene	440	U	ug/kg	440	410	U	ug/kg	410	400	U	ug/kg	400	390	U	ug/kg	390

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FG8			A1FGD			A1FGF			A1FGM		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SS19			CF3SS20			CF3SS20D			CF3SS21		
Collect Date:	19-NOV-94			20-NOV-94			20-NOV-94			20-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
bis(2-Chloroethyl) ether	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2-Chlorophenol	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
1,3-Dichlorobenzene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
1,4-Dichlorobenzene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
1,2-Dichlorobenzene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2-Methylphenol	24 J	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2,2-oxybis(1-Chloropropane)	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
4-Methylphenol	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
N-Nitroso-di-n-propylamine	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
Hexachloroethane	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
Nitrobenzene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
Isophorone	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2-Nitrophenol	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2,4-Dimethylphenol	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
bis(2-Chloroethoxy) methane	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2,4-Dichlorophenol	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
1,2,4-Trichlorobenzene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
Naphthalene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
4-Chloroaniline	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
Hexachlorobutadiene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
4-Chloro-3-methylphenol	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2-Methylnaphthalene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
Hexachlorocyclopentadiene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2,4,6-Trichlorophenol	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2,4,5-Trichlorophenol	980 U	ug/kg	980	940 U	ug/kg	940	1100 U	ug/kg	1100	1000 U	ug/kg	1000
2-Chloronaphthalene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2-Nitroaniline	980 U	ug/kg	980	940 U	ug/kg	940	1100 U	ug/kg	1100	1000 U	ug/kg	1000
Dimethylphthalate	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
Acenaphthylene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2,6-Dinitrotoluene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
3-Nitroaniline	980 U	ug/kg	980	940 U	ug/kg	940	1100 U	ug/kg	1100	1000 U	ug/kg	1000
Acenaphthene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2,4-Dinitrophenol	980 U	ug/kg	980	940 U	ug/kg	940	1100 U	ug/kg	1100	1000 U	ug/kg	1000
4-Nitrophenol	980 U	ug/kg	980	940 U	ug/kg	940	1100 U	ug/kg	1100	1000 U	ug/kg	1000
Dibenzofuran	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
2,4-Dinitrotoluene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
Diethylphthalate	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
4-Chlorophenyl-phenylether	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420
Fluorene	400 U	ug/kg	400	390 U	ug/kg	390	460 U	ug/kg	460	420 U	ug/kg	420

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FG8				A1FGD				A1FGF				A1FGM			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS19				CF3SS20				CF3SS20D				CF3SS21			
Collect Date:	19-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	980	U	ug/kg	980	940	U	ug/kg	940	1100	U	ug/kg	1100	1000	U	ug/kg	1000
4,6-Dinitro-2-methylphenol	980	U	ug/kg	980	940	U	ug/kg	940	1100	U	ug/kg	1100	1000	U	ug/kg	1000
N-Nitrosodiphenylamine (1)	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
4-Bromophenyl-phenylether	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Hexachlorobenzene	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Pentachlorophenol	980	U	ug/kg	980	940	U	ug/kg	940	1100	U	ug/kg	1100	1000	U	ug/kg	1000
Phenanthrene	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Anthracene	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Carbazole	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Di-n-butylphthalate	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Fluoranthene	400	U	ug/kg	400	390	U	ug/kg	390	34	J	ug/kg	460	420	U	ug/kg	420
Pyrene	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Butylbenzylphthalate	48	J	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
3,3-Dichlorobenzidine	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Benzo (a) anthracene	400	U	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Chrysene	400	U	ug/kg	400	390	U	ug/kg	390	25	J	ug/kg	460	420	U	ug/kg	420
bis(2-Ethylhexyl) phthalate	290	J	ug/kg	400	390	U	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Di-n-octylphthalate	400	U	ug/kg	400	390	UJ	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Benzo (b) fluoranthene	400	U	ug/kg	400	390	UJ	ug/kg	390	58	J	ug/kg	460	420	U	ug/kg	420
Benzo (k) fluoranthene	400	U	ug/kg	400	390	UJ	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Benzo (a) pyrene	400	U	ug/kg	400	390	UJ	ug/kg	390	30	J	ug/kg	460	420	U	ug/kg	420
Indeno (1,2,3-cd) pyrene	400	U	ug/kg	400	390	UJ	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Dibenz (a,h) anthracene	400	U	ug/kg	400	390	UJ	ug/kg	390	460	U	ug/kg	460	420	U	ug/kg	420
Benzo (g,h,i) perylene	400	U	ug/kg	400	52	J	ug/kg	390	37	J	ug/kg	460	420	U	ug/kg	420

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FGW				A1FH5				A1FH9				A1FKJ			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS22				CF3SS23				CF3SS24				CF3SS24D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	420	U	ug/kg	420	440	U	ug/kg	440	31	J	ug/kg	540	35	J	ug/kg	590
bis(2-Chloroethyl) ether	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2-Chlorophenol	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
1,3-Dichlorobenzene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
1,4-Dichlorobenzene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
1,2-Dichlorobenzene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2-Methylphenol	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2,2-oxybis(1-Chloropropane)	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
4-Methylphenol	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
N-Nitroso-di-n-propylamine	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Hexachloroethane	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Nitrobenzene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Isophorone	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2-Nitrophenol	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2,4-Dimethylphenol	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
bis(2-Chloroethoxy) methane	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2,4-Dichlorophenol	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
1,2,4-Trichlorobenzene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Naphthalene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
4-Chloroaniline	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Hexachlorobutadiene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
4-Chloro-3-methylphenol	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2-Methylnaphthalene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Hexachlorocyclopentadiene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2,4,6-Trichlorophenol	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2,4,5-Trichlorophenol	1000	U	ug/kg	1000	1100	U	ug/kg	1100	1300	U	ug/kg	1300	1400	U	ug/kg	1400
2-Chloronaphthalene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2-Nitroaniline	1000	U	ug/kg	1000	1100	U	ug/kg	1100	1300	U	ug/kg	1300	1400	U	ug/kg	1400
Dimethylphthalate	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Acenaphthylene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2,6-Dinitrotoluene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
3-Nitroaniline	1000	U	ug/kg	1000	1100	U	ug/kg	1100	1300	U	ug/kg	1300	1400	U	ug/kg	1400
Acenaphthene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2,4-Dinitrophenol	1000	U	ug/kg	1000	1100	U	ug/kg	1100	1300	U	ug/kg	1300	1400	U	ug/kg	1400
4-Nitrophenol	1000	U	ug/kg	1000	1100	U	ug/kg	1100	1300	U	ug/kg	1300	1400	U	ug/kg	1400
Dibenzofuran	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
2,4-Dinitrotoluene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Diethylphthalate	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
4-Chlorophenyl-phenylether	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Fluorene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FGW				A1FH5				A1FH9				A1FKJ			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS22				CF3SS23				CF3SS24				CF3SS24D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1000	U	ug/kg	1000	1100	U	ug/kg	1100	1300	U	ug/kg	1300	1400	U	ug/kg	1400
4,6-Dinitro-2-methylphenol	1000	U	ug/kg	1000	1100	U	ug/kg	1100	1300	U	ug/kg	1300	1400	U	ug/kg	1400
N-Nitrosodiphenylamine (1)	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
4-Bromophenyl-phenylether	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Hexachlorobenzene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Pentachlorophenol	1000	U	ug/kg	1000	1100	U	ug/kg	1100	1300	U	ug/kg	1300	1400	U	ug/kg	1400
Phenanthrene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Anthracene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Carbazole	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Di-n-butylphthalate	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Fluoranthene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Pyrene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Butylbenzylphthalate	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
3,3-Dichlorobenzidine	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Benzo (a) anthracene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Chrysene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
bis(2-Ethylhexyl) phthalate	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Di-n-octylphthalate	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Benzo (b) fluoranthene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Benzo (k) fluoranthene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Benzo (a) pyrene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Indeno (1,2,3-cd) pyrene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Dibenz (a,h) anthracene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590
Benzo (g,h,i) perylene	420	U	ug/kg	420	440	U	ug/kg	440	540	U	ug/kg	540	590	U	ug/kg	590

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

	A1FN2					A1DVR					A1DVV					A1DW0				
Lab Sample Number:																				
Site	CECIL8					CECIL8					CECIL8					CECIL8				
Locator	CF3SS1					CF3SS2					CF3SS3					CF3SS4				
Collect Date:	20-NOV-94					18-NOV-94					18-NOV-94					18-NOV-94				
	VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL	
CLP PESTICIDES/PCBS 90-SOW																				
alpha-BHC	2	U	ug/kg	2		10	UJ	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
beta-BHC	2	U	ug/kg	2		10	UJ	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
delta-BHC	2	U	ug/kg	2		10	UJ	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
gamma-BHC (Lindane)	2	U	ug/kg	2		10	UJ	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
Heptachlor	2	U	ug/kg	2		10	UJ	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
Aldrin	2	U	ug/kg	2		10	UJ	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
Heptachlor epoxide	2	U	ug/kg	2		10	UJ	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
Endosulfan I	2	U	ug/kg	2		10	UJ	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
Dieldrin	3.9	U	ug/kg	3.9		1.6	J	ug/kg	20		3.9	UJ	ug/kg	3.9		4	UJ	ug/kg	4	
4,4-DDE	3.9	U	ug/kg	3.9		20	UJ	ug/kg	20		3.9	UJ	ug/kg	3.9		4	UJ	ug/kg	4	
Endrin	3.9	U	ug/kg	3.9		20	UJ	ug/kg	20		3.9	UJ	ug/kg	3.9		4	UJ	ug/kg	4	
Endosulfan II	3.9	U	ug/kg	3.9		20	UJ	ug/kg	20		.63	J	ug/kg	4		.26	J	ug/kg	4	
4,4-DDD	3.9	U	ug/kg	3.9		20	UJ	ug/kg	20		3.9	UJ	ug/kg	3.9		4	UJ	ug/kg	4	
Endosulfan sulfate	3.9	U	ug/kg	3.9		20	UJ	ug/kg	20		3.9	UJ	ug/kg	3.9		4	UJ	ug/kg	4	
4,4-DDT	3.9	U	ug/kg	3.9		20	UJ	ug/kg	20		3.9	UJ	ug/kg	3.9		4	UJ	ug/kg	4	
Methoxychlor	20	U	ug/kg	20		100	UJ	ug/kg	100		20	UJ	ug/kg	20		21	UJ	ug/kg	21	
Endrin ketone	3.9	U	ug/kg	3.9		20	UJ	ug/kg	20		3.9	UJ	ug/kg	3.9		4	UJ	ug/kg	4	
Endrin aldehyde	3.9	U	ug/kg	3.9		20	UJ	ug/kg	20		3.9	UJ	ug/kg	3.9		4	UJ	ug/kg	4	
alpha-Chlordane	2	U	ug/kg	2		.95	R	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
gamma-Chlordane	2	U	ug/kg	2		10	UJ	ug/kg	10		2	UJ	ug/kg	2		2.1	UJ	ug/kg	2.1	
Toxaphene	200	U	ug/kg	200		1000	UJ	ug/kg	1000		200	UJ	ug/kg	200		210	UJ	ug/kg	210	
Aroclor-1016	39	U	ug/kg	39		200	UJ	ug/kg	200		39	UJ	ug/kg	39		40	UJ	ug/kg	40	
Aroclor-1221	79	U	ug/kg	79		400	UJ	ug/kg	400		80	UJ	ug/kg	80		82	UJ	ug/kg	82	
Aroclor-1232	39	U	ug/kg	39		200	UJ	ug/kg	200		39	UJ	ug/kg	39		40	UJ	ug/kg	40	
Aroclor-1242	39	U	ug/kg	39		200	UJ	ug/kg	200		39	UJ	ug/kg	39		40	UJ	ug/kg	40	
Aroclor-1248	39	U	ug/kg	39		200	UJ	ug/kg	200		39	UJ	ug/kg	39		40	UJ	ug/kg	40	
Aroclor-1254	39	U	ug/kg	39		200	UJ	ug/kg	200		39	UJ	ug/kg	39		40	UJ	ug/kg	40	
Aroclor-1260	39	U	ug/kg	39		200	UJ	ug/kg	200		39	UJ	ug/kg	39		40	UJ	ug/kg	40	

U = NOT DETECTED J = ESTIMATED VALUE
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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1DW2				A1DW4				A1FDQ				A1FDQRE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS5				CF3SS6				CF3SS7				CF3SS7RE			
Collect Date:	18-NOV-94				18-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2	UJ	ug/kg	2
beta-BHC	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2	UJ	ug/kg	2
delta-BHC	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2	UJ	ug/kg	2
gamma-BHC (Lindane)	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2	UJ	ug/kg	2
Heptachlor	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2	UJ	ug/kg	2
Aldrin	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2	R	ug/kg	2
Heptachlor epoxide	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2	UJ	ug/kg	2
Endosulfan I	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2	UJ	ug/kg	2
Dieldrin	3.9	UJ	ug/kg	3.9	4.1	UJ	ug/kg	4.1	3.9	UJ	ug/kg	3.9	3.9	UJ	ug/kg	3.9
4,4-DDE	3.9	UJ	ug/kg	3.9	4.1	UJ	ug/kg	4.1	3.9	UJ	ug/kg	3.9	3.9	UJ	ug/kg	3.9
Endrin	3.9	UJ	ug/kg	3.9	4.1	UJ	ug/kg	4.1	3.9	UJ	ug/kg	3.9	3.9	UJ	ug/kg	3.9
Endosulfan II	3.9	UJ	ug/kg	3.9	4.1	UJ	ug/kg	4.1	3.9	UJ	ug/kg	3.9	3.9	UJ	ug/kg	3.9
4,4-DDD	3.9	UJ	ug/kg	3.9	4.1	UJ	ug/kg	4.1	3.9	UJ	ug/kg	3.9	3.9	UJ	ug/kg	3.9
Endosulfan sulfate	3.9	UJ	ug/kg	3.9	4.1	UJ	ug/kg	4.1	3.9	UJ	ug/kg	3.9	3.9	UJ	ug/kg	3.9
4,4-DDT	3.9	UJ	ug/kg	3.9	4.1	UJ	ug/kg	4.1	3.9	UJ	ug/kg	3.9	3.9	UJ	ug/kg	3.9
Methoxychlor	20	UJ	ug/kg	20	21	UJ	ug/kg	21	20	UJ	ug/kg	20	20	UJ	ug/kg	20
Endrin ketone	3.9	UJ	ug/kg	3.9	4.1	UJ	ug/kg	4.1	3.9	UJ	ug/kg	3.9	3.9	UJ	ug/kg	3.9
Endrin aldehyde	3.9	UJ	ug/kg	3.9	4.1	UJ	ug/kg	4.1	3.9	UJ	ug/kg	3.9	3.9	UJ	ug/kg	3.9
alpha-Chlordane	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	.25	J	ug/kg	2
gamma-Chlordane	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	.3	J	ug/kg	2	2	UJ	ug/kg	2
Toxaphene	200	UJ	ug/kg	200	210	UJ	ug/kg	210	200	UJ	ug/kg	200	200	UJ	ug/kg	200
Aroclor-1016	39	UJ	ug/kg	39	41	UJ	ug/kg	41	39	UJ	ug/kg	39	39	UJ	ug/kg	39
Aroclor-1221	79	UJ	ug/kg	79	82	UJ	ug/kg	82	79	UJ	ug/kg	79	79	UJ	ug/kg	79
Aroclor-1232	39	UJ	ug/kg	39	41	UJ	ug/kg	41	39	UJ	ug/kg	39	39	UJ	ug/kg	39
Aroclor-1242	39	UJ	ug/kg	39	41	UJ	ug/kg	41	39	UJ	ug/kg	39	39	UJ	ug/kg	39
Aroclor-1248	39	UJ	ug/kg	39	41	UJ	ug/kg	41	39	UJ	ug/kg	39	39	UJ	ug/kg	39
Aroclor-1254	39	UJ	ug/kg	39	41	UJ	ug/kg	41	39	UJ	ug/kg	39	39	UJ	ug/kg	39
Aroclor-1260	39	UJ	ug/kg	39	41	UJ	ug/kg	41	39	UJ	ug/kg	39	39	UJ	ug/kg	39

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FDX				A1FDXRE				A1FE4				A1FE4RE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS8				CF3SS8RE				CF3SS9				CF3SS9RE			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.5	UJ	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
beta-BHC	2.5	UJ	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
delta-BHC	2.5	UJ	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
gamma-BHC (Lindane)	2.5	UJ	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Heptachlor	2.5	UJ	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Aldrin	2.5	UJ	ug/kg	2.5	2.5	R	ug/kg	2	2.1	UJ	ug/kg	2.1	2.1	R	ug/kg	2.1
Heptachlor epoxide	2.5	UJ	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Endosulfan I	2.5	UJ	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Dieldrin	4.8	UJ	ug/kg	4.8	4.8	UJ	ug/kg	4.8	4.1	UJ	ug/kg	4.1	4.1	U	ug/kg	4.1
4,4-DDE	4.8	UJ	ug/kg	4.8	4.8	UJ	ug/kg	4.8	4.1	UJ	ug/kg	4.1	4.1	U	ug/kg	4.1
Endrin	4.8	UJ	ug/kg	4.8	4.8	UJ	ug/kg	4.8	4.1	UJ	ug/kg	4.1	4.1	U	ug/kg	4.1
Endosulfan II	4.8	UJ	ug/kg	4.8	4.8	UJ	ug/kg	4.8	4.1	UJ	ug/kg	4.1	4.1	U	ug/kg	4.1
4,4-DDD	4.8	UJ	ug/kg	4.8	4.8	UJ	ug/kg	4.8	4.1	UJ	ug/kg	4.1	4.1	U	ug/kg	4.1
Endosulfan sulfate	4.8	UJ	ug/kg	4.8	4.8	UJ	ug/kg	4.8	4.1	UJ	ug/kg	4.1	4.1	U	ug/kg	4.1
4,4-DDT	19	UJ	ug/kg	19	4.8	UJ	ug/kg	4.8	4.1	UJ	ug/kg	4.1	4.1	U	ug/kg	4.1
Methoxychlor	25	UJ	ug/kg	25	25	UJ	ug/kg	25	21	UJ	ug/kg	21	21	U	ug/kg	21
Endrin ketone	4.8	U	ug/kg	4.8	4.8	UJ	ug/kg	4.8	4.1	UJ	ug/kg	4.1	4.1	U	ug/kg	4.1
Endrin aldehyde	4.8	UJ	ug/kg	4.8	4.8	UJ	ug/kg	4.8	4.1	UJ	ug/kg	4.1	4.1	U	ug/kg	4.1
alpha-Chlordane	2.5	UJ	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.1	UJ	ug/kg	2.1	.099	J	ug/kg	2
gamma-Chlordane	2.5	UJ	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Toxaphene	250	UJ	ug/kg	250	250	UJ	ug/kg	250	210	UJ	ug/kg	210	210	U	ug/kg	210
Aroclor-1016	48	UJ	ug/kg	48	48	UJ	ug/kg	48	41	UJ	ug/kg	41	41	U	ug/kg	41
Aroclor-1221	97	UJ	ug/kg	97	97	UJ	ug/kg	97	83	UJ	ug/kg	83	83	U	ug/kg	83
Aroclor-1232	48	UJ	ug/kg	48	48	UJ	ug/kg	48	41	UJ	ug/kg	41	41	U	ug/kg	41
Aroclor-1242	48	UJ	ug/kg	48	48	UJ	ug/kg	48	41	UJ	ug/kg	41	41	U	ug/kg	41
Aroclor-1248	48	UJ	ug/kg	48	48	UJ	ug/kg	48	41	UJ	ug/kg	41	41	U	ug/kg	41
Aroclor-1254	48	UJ	ug/kg	48	48	UJ	ug/kg	48	41	UJ	ug/kg	41	41	U	ug/kg	41
Aroclor-1260	48	UJ	ug/kg	48	48	UJ	ug/kg	48	41	UJ	ug/kg	41	41	U	ug/kg	41

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FEE			A1FEERE			A1FEH			A1FEHRE		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SS10			CF3SS10RE			CF3SS10D			CF3SS10DRE		
Collect Date:	19-NOV-94			19-NOV-94			19-NOV-94			19-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	1.9 UJ	ug/kg	1.9	2 U	ug/kg	2	2 U	ug/kg	2	2 U	ug/kg	2
beta-BHC	1.9 UJ	ug/kg	1.9	2 U	ug/kg	2	2 U	ug/kg	2	2 U	ug/kg	2
delta-BHC	1.9 UJ	ug/kg	1.9	2 U	ug/kg	2	2 U	ug/kg	2	2 U	ug/kg	2
gamma-BHC (Lindane)	1.9 UJ	ug/kg	1.9	2 U	ug/kg	2	2 U	ug/kg	2	2 U	ug/kg	2
Heptachlor	1.9 UJ	ug/kg	1.9	2 U	ug/kg	2	2 U	ug/kg	2	2 U	ug/kg	2
Aldrin	1.9 UJ	ug/kg	1.9	2 R	ug/kg	2	2 U	ug/kg	2	2 R	ug/kg	2
Heptachlor epoxide	1.9 UJ	ug/kg	1.9	2 U	ug/kg	2	2 U	ug/kg	2	2 U	ug/kg	2
Endosulfan I	1.9 UJ	ug/kg	1.9	2 U	ug/kg	2	2 U	ug/kg	2	2 U	ug/kg	2
Dieldrin	3.8 UJ	ug/kg	3.8	3.8 U	ug/kg	3.8	4.9 U	ug/kg	4.9	3.9 U	ug/kg	3.9
4,4-DDE	3.8 UJ	ug/kg	3.8	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9	3.9 U	ug/kg	3.9
Endrin	3.8 UJ	ug/kg	3.8	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9	3.9 U	ug/kg	3.9
Endosulfan II	3.8 UJ	ug/kg	3.8	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9	3.9 U	ug/kg	3.9
4,4-DDD	3.8 UJ	ug/kg	3.8	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9	3.9 U	ug/kg	3.9
Endosulfan sulfate	3.8 UJ	ug/kg	3.8	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9	3.9 U	ug/kg	3.9
4,4-DDT	8.6 UJ	ug/kg	8.6	3.8 U	ug/kg	3.8	29 U	ug/kg	29	3.9 U	ug/kg	3.9
Methoxychlor	19 UJ	ug/kg	19	20 U	ug/kg	20	20 U	ug/kg	20	20 U	ug/kg	20
Endrin ketone	3.8 UJ	ug/kg	3.8	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9	3.9 U	ug/kg	3.9
Endrin aldehyde	3.8 UJ	ug/kg	3.8	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9	3.9 U	ug/kg	3.9
alpha-Chlordane	1.9 UJ	ug/kg	1.9	2 U	ug/kg	2	2 U	ug/kg	2	.12 J	ug/kg	2
gamma-Chlordane	1.9 UJ	ug/kg	1.9	2 U	ug/kg	2	2 U	ug/kg	2	2 U	ug/kg	2
Toxaphene	190 UJ	ug/kg	190	200 U	ug/kg	200	200 U	ug/kg	200	200 U	ug/kg	200
Aroclor-1016	38 UJ	ug/kg	38	38 U	ug/kg	38	39 U	ug/kg	39	39 U	ug/kg	39
Aroclor-1221	77 UJ	ug/kg	77	77 U	ug/kg	77	79 U	ug/kg	79	79 U	ug/kg	79
Aroclor-1232	38 UJ	ug/kg	38	38 U	ug/kg	38	39 U	ug/kg	39	39 U	ug/kg	39
Aroclor-1242	38 UJ	ug/kg	38	38 U	ug/kg	38	39 U	ug/kg	39	39 U	ug/kg	39
Aroclor-1248	38 UJ	ug/kg	38	38 U	ug/kg	38	39 U	ug/kg	39	39 U	ug/kg	39
Aroclor-1254	38 UJ	ug/kg	38	10 J	ug/kg	38	39 U	ug/kg	39	39 U	ug/kg	39
Aroclor-1260	38 UJ	ug/kg	38	38 U	ug/kg	38	39 U	ug/kg	39	39 U	ug/kg	39

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FF5				A1FF5RE				A1FFA				A1FFARE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS11				CF3SS11RE				CF3SS12				CF3SS12RE			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
beta-BHC	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
delta-BHC	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
gamma-BHC (Lindane)	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5
Heptachlor	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5
Aldrin	.11	R	ug/kg	2	2.5	U	ug/kg	2.5	.45	R	ug/kg	2	2.5	U	ug/kg	2.5
Heptachlor epoxide	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
Endosulfan I	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
Dieldrin	4.8	UJ	ug/kg	4.8	4.8	U	ug/kg	4.8	4.8	UJ	ug/kg	4.8	4.8	U	ug/kg	4.8
4,4-DDE	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8	.2	U	ug/kg	.2	4.8	U	ug/kg	4.8
Endrin	4.8	UJ	ug/kg	4.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
Endosulfan II	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8	.2	U	ug/kg	.2	4.8	U	ug/kg	4.8
4,4-DDD	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
Endosulfan sulfate	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
4,4-DDT	4.8	UJ	ug/kg	4.8	6.8	U	ug/kg	6.8	4.8	UJ	ug/kg	4.8	6.2	U	ug/kg	6.2
Methoxychlor	25	U	ug/kg	25	25	U	ug/kg	25	25	U	ug/kg	25	25	U	ug/kg	25
Endrin ketone	4	J	ug/kg	5	4.8	U	ug/kg	4.8	5.4	R	ug/kg	5	4.8	U	ug/kg	4.8
Endrin aldehyde	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
alpha-Chlordane	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
gamma-Chlordane	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
Toxaphene	250	U	ug/kg	250	250	U	ug/kg	250	250	U	ug/kg	250	250	U	ug/kg	250
Aroclor-1016	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1221	98	U	ug/kg	98	98	U	ug/kg	98	98	U	ug/kg	98	98	U	ug/kg	98
Aroclor-1232	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1242	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1248	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1254	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1260	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48	48	U	ug/kg	48

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FFE				A1FFERE				A1FFP				A1FFPRE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS13				CF3SS13RE				CF3SS14				CF3SS14RE			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
beta-BHC	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
delta-BHC	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
gamma-BHC (Lindane)	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Heptachlor	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Aldrin	1.1	R	ug/kg	2	2.5	U	ug/kg	2.5	.29	R	ug/kg	2	2.1	U	ug/kg	2.1
Heptachlor epoxide	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Endosulfan I	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Dieldrin	4.9	UJ	ug/kg	4.9	4.8	U	ug/kg	4.8	4.2	UJ	ug/kg	4.2	4.2	U	ug/kg	4.2
4,4-DDE	4.9	UJ	ug/kg	4.9	4.8	U	ug/kg	4.8	4.2	UJ	ug/kg	4.2	4.2	U	ug/kg	4.2
Endrin	4.9	UJ	ug/kg	4.9	4.8	U	ug/kg	4.8	4.2	UJ	ug/kg	4.2	4.2	U	ug/kg	4.2
Endosulfan II	.4	UJ	ug/kg	.4	4.8	U	ug/kg	4.8	4.2	UJ	ug/kg	4.2	4.2	U	ug/kg	4.2
4,4-DDD	4.9	UJ	ug/kg	4.9	4.8	U	ug/kg	4.8	4.2	UJ	ug/kg	4.2	4.2	U	ug/kg	4.2
Endosulfan sulfate	4.9	UJ	ug/kg	4.9	4.8	U	ug/kg	4.8	4.2	UJ	ug/kg	4.2	4.2	U	ug/kg	4.2
4,4-DDT	4.9	UJ	ug/kg	4.9	5.1	U	ug/kg	5.1	4.2	UJ	ug/kg	4.2	4.2	U	ug/kg	4.2
Methoxychlor	25	UJ	ug/kg	25	25	U	ug/kg	25	21	U	ug/kg	21	21	U	ug/kg	21
Endrin ketone	4.9	UJ	ug/kg	4.9	4.8	U	ug/kg	4.8	4.2	UJ	ug/kg	4.2	4.2	U	ug/kg	4.2
Endrin aldehyde	.21	R	ug/kg	4.9	4.8	U	ug/kg	4.8	4.2	UJ	ug/kg	4.2	4.2	U	ug/kg	4.2
alpha-Chlordane	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
gamma-Chlordane	2.5	UJ	ug/kg	2.5	2.5	U	ug/kg	2.5	2.1	UJ	ug/kg	2.1	2.1	U	ug/kg	2.1
Toxaphene	250	UJ	ug/kg	250	250	U	ug/kg	250	210	UJ	ug/kg	210	210	U	ug/kg	210
Aroclor-1016	49	UJ	ug/kg	49	48	U	ug/kg	48	42	UJ	ug/kg	42	42	U	ug/kg	42
Aroclor-1221	98	UJ	ug/kg	98	98	U	ug/kg	98	85	UJ	ug/kg	85	85	U	ug/kg	85
Aroclor-1232	49	UJ	ug/kg	49	48	U	ug/kg	48	42	UJ	ug/kg	42	42	U	ug/kg	42
Aroclor-1242	49	UJ	ug/kg	49	48	U	ug/kg	48	42	UJ	ug/kg	42	42	U	ug/kg	42
Aroclor-1248	49	UJ	ug/kg	49	48	U	ug/kg	48	42	UJ	ug/kg	42	42	U	ug/kg	42
Aroclor-1254	49	UJ	ug/kg	49	48	U	ug/kg	48	42	UJ	ug/kg	42	42	U	ug/kg	42
Aroclor-1260	49	UJ	ug/kg	49	48	U	ug/kg	48	42	UJ	ug/kg	42	42	U	ug/kg	42

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FFR				A1FFRRE				A1FFW				A1FG1			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS15				CF3SS15RE				CF3SS16				CF3SS17			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.3	U	ug/kg	2.3	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
beta-BHC	.34	U	ug/kg	2	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
delta-BHC	2.3	U	ug/kg	2.3	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
gamma-BHC (Lindane)	2.3	UJ	ug/kg	2.3	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
Heptachlor	2.3	UJ	ug/kg	2.3	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
Aldrin	.25	R	ug/kg	2	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
Heptachlor epoxide	2.3	U	ug/kg	2.3	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
Endosulfan I	2.3	U	ug/kg	2.3	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
Dieldrin	4.4	UJ	ug/kg	4.4	4.4	U	ug/kg	4.4	2.1	UJ	ug/kg	2.1	4	UJ	ug/kg	4
4,4-DDE	4.4	U	ug/kg	4.4	4.4	U	ug/kg	4.4	4.1	UJ	ug/kg	4.1	4	UJ	ug/kg	4
Endrin	4.4	UJ	ug/kg	4.4	4.4	U	ug/kg	4.4	4.1	UJ	ug/kg	4.1	4	UJ	ug/kg	4
Endosulfan II	.17	J	ug/kg	4	4.4	U	ug/kg	4.4	4.1	UJ	ug/kg	4.1	4	UJ	ug/kg	4
4,4-DDD	4.4	U	ug/kg	4.4	4.4	U	ug/kg	4.4	4.1	UJ	ug/kg	4.1	4	UJ	ug/kg	4
Endosulfan sulfate	4.4	U	ug/kg	4.4	4.4	U	ug/kg	4.4	4.1	UJ	ug/kg	4.1	4	UJ	ug/kg	4
4,4-DDT	4.4	UJ	ug/kg	4.4	5.8	U	ug/kg	5.8	10	J	ug/kg	4	8.5	J	ug/kg	4
Methoxychlor	23	U	ug/kg	23	23	U	ug/kg	23	21	UJ	ug/kg	21	21	UJ	ug/kg	21
Endrin ketone	4.4	U	ug/kg	4.4	4.4	U	ug/kg	4.4	4.1	UJ	ug/kg	4.1	4	UJ	ug/kg	4
Endrin aldehyde	4.4	R	ug/kg	4.4	4.4	U	ug/kg	4.4	4.1	UJ	ug/kg	4.1	4	UJ	ug/kg	4
alpha-Chlordane	2.3	U	ug/kg	2.3	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
gamma-Chlordane	2.3	U	ug/kg	2.3	2.3	U	ug/kg	2.3	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1
Toxaphene	230	U	ug/kg	230	230	U	ug/kg	230	210	UJ	ug/kg	210	210	UJ	ug/kg	210
Aroclor-1016	44	U	ug/kg	44	44	U	ug/kg	44	41	UJ	ug/kg	41	40	UJ	ug/kg	40
Aroclor-1221	89	U	ug/kg	89	90	U	ug/kg	90	84	UJ	ug/kg	84	81	UJ	ug/kg	81
Aroclor-1232	44	U	ug/kg	44	44	U	ug/kg	44	41	UJ	ug/kg	41	40	UJ	ug/kg	40
Aroclor-1242	44	U	ug/kg	44	44	U	ug/kg	44	41	UJ	ug/kg	41	40	UJ	ug/kg	40
Aroclor-1248	44	U	ug/kg	44	44	U	ug/kg	44	41	UJ	ug/kg	41	40	UJ	ug/kg	40
Aroclor-1254	44	U	ug/kg	44	44	U	ug/kg	44	41	UJ	ug/kg	41	40	UJ	ug/kg	40
Aroclor-1260	44	U	ug/kg	44	44	U	ug/kg	44	41	UJ	ug/kg	41	40	UJ	ug/kg	40

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FG3				A1FG8				A1FGD				A1FGF			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS18				CF3SS19				CF3SS20				CF3SS20D			
Collect Date:	19-NOV-94				19-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2.4	UJ	ug/kg	2.4
beta-BHC	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	.15	R	ug/kg	2
delta-BHC	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2.4	UJ	ug/kg	2.4
gamma-BHC (Lindane)	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2.4	UJ	ug/kg	2.4
Heptachlor	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2.4	UJ	ug/kg	2.4
Aldrin	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2.4	UJ	ug/kg	2.4
Heptachlor epoxide	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2.4	UJ	ug/kg	2.4
Endosulfan I	2	UJ	ug/kg	2	2.1	UJ	ug/kg	2.1	2	UJ	ug/kg	2	2.4	UJ	ug/kg	2.4
Dieldrin	3.9	UJ	ug/kg	3.9	4	UJ	ug/kg	4	3.9	UJ	ug/kg	3.9	4.7	UJ	ug/kg	4.7
4,4-DDE	3.9	UJ	ug/kg	3.9	4	UJ	ug/kg	4	3.9	UJ	ug/kg	3.9	4.7	UJ	ug/kg	4.7
Endrin	3.9	UJ	ug/kg	3.9	4	UJ	ug/kg	4	3.9	UJ	ug/kg	3.9	4.7	UJ	ug/kg	4.7
Endosulfan II	3.9	UJ	ug/kg	3.9	4	UJ	ug/kg	4	3.9	UJ	ug/kg	3.9	4.7	UJ	ug/kg	4.7
4,4-DDD	3.9	UJ	ug/kg	3.9	4	UJ	ug/kg	4	3.9	UJ	ug/kg	3.9	4.7	UJ	ug/kg	4.7
Endosulfan sulfate	3.9	UJ	ug/kg	3.9	4	UJ	ug/kg	4	3.9	UJ	ug/kg	3.9	4.7	UJ	ug/kg	4.7
4,4-DDT	3.9	UJ	ug/kg	3.9	8.8	J	ug/kg	4	4.8	J	ug/kg	4	4	UJ	ug/kg	4
Methoxychlor	20	UJ	ug/kg	20	21	UJ	ug/kg	21	20	UJ	ug/kg	20	24	UJ	ug/kg	24
Endrin ketone	3.9	UJ	ug/kg	3.9	4	UJ	ug/kg	4	3.9	UJ	ug/kg	3.9	4.7	UJ	ug/kg	4.7
Endrin aldehyde	3.9	UJ	ug/kg	3.9	4	UJ	ug/kg	4	3.9	UJ	ug/kg	3.9	4.7	UJ	ug/kg	4.7
alpha-Chlordane	.26	J	ug/kg	2	.58	J	ug/kg	2	2	UJ	ug/kg	2	.19	J	ug/kg	2
gamma-Chlordane	.22	J	ug/kg	2	.8	J	ug/kg	2	.088	J	ug/kg	2	.15	J	ug/kg	2
Toxaphene	200	UJ	ug/kg	200	210	UJ	ug/kg	210	200	UJ	ug/kg	200	240	UJ	ug/kg	240
Aroclor-1016	39	UJ	ug/kg	39	40	UJ	ug/kg	40	39	UJ	ug/kg	39	47	UJ	ug/kg	47
Aroclor-1221	79	UJ	ug/kg	79	82	UJ	ug/kg	82	79	UJ	ug/kg	79	95	UJ	ug/kg	95
Aroclor-1232	39	UJ	ug/kg	39	40	UJ	ug/kg	40	39	UJ	ug/kg	39	47	UJ	ug/kg	47
Aroclor-1242	39	UJ	ug/kg	39	40	UJ	ug/kg	40	39	UJ	ug/kg	39	47	UJ	ug/kg	47
Aroclor-1248	39	UJ	ug/kg	39	40	UJ	ug/kg	40	39	UJ	ug/kg	39	47	UJ	ug/kg	47
Aroclor-1254	39	UJ	ug/kg	39	40	UJ	ug/kg	40	39	UJ	ug/kg	39	47	UJ	ug/kg	47
Aroclor-1260	39	UJ	ug/kg	39	40	UJ	ug/kg	40	39	UJ	ug/kg	39	47	UJ	ug/kg	47

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

	A1FGM				A1FGW				A1FH5				A1FH9			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS21				CF3SS22				CF3SS23				CF3SS24			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.6	UJ	ug/kg	2.6	.28	J	ug/kg	3
beta-BHC	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.8	UJ	ug/kg	2.8
delta-BHC	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.8	UJ	ug/kg	2.8
gamma-BHC (Lindane)	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.8	UJ	ug/kg	2.8
Heptachlor	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.8	UJ	ug/kg	2.8
Aldrin	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.8	UJ	ug/kg	2.8
Heptachlor epoxide	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.8	UJ	ug/kg	2.8
Endosulfan I	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.8	UJ	ug/kg	2.8
Dieldrin	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2	4.5	UJ	ug/kg	4.5	5.4	UJ	ug/kg	5.4
4,4-DDE	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2	4.5	UJ	ug/kg	4.5	5.4	UJ	ug/kg	5.4
Endrin	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2	4.5	UJ	ug/kg	4.5	5.4	UJ	ug/kg	5.4
Endosulfan II	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2	4.5	UJ	ug/kg	4.5	5.4	UJ	ug/kg	5.4
4,4-DDD	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2	4.5	UJ	ug/kg	4.5	5.4	UJ	ug/kg	5.4
Endosulfan sulfate	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2	4.5	UJ	ug/kg	4.5	5.4	UJ	ug/kg	5.4
4,4-DDT	2.9	J	ug/kg	4	1.3	J	ug/kg	4	2.3	J	ug/kg	4.5	2.2	J	ug/kg	5
Methoxychlor	22	UJ	ug/kg	22	22	UJ	ug/kg	22	23	UJ	ug/kg	23	28	UJ	ug/kg	28
Endrin ketone	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2	4.5	UJ	ug/kg	4.5	5.4	UJ	ug/kg	5.4
Endrin aldehyde	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2	4.5	UJ	ug/kg	4.5	5.4	UJ	ug/kg	5.4
alpha-Chlordane	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.8	UJ	ug/kg	2.8
gamma-Chlordane	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.8	UJ	ug/kg	2.8
Toxaphene	220	UJ	ug/kg	220	220	UJ	ug/kg	220	230	UJ	ug/kg	230	280	UJ	ug/kg	280
Aroclor-1016	42	UJ	ug/kg	42	42	UJ	ug/kg	42	45	UJ	ug/kg	45	54	UJ	ug/kg	54
Aroclor-1221	86	UJ	ug/kg	86	86	UJ	ug/kg	86	91	UJ	ug/kg	91	110	UJ	ug/kg	110
Aroclor-1232	42	UJ	ug/kg	42	42	UJ	ug/kg	42	45	UJ	ug/kg	45	54	UJ	ug/kg	54
Aroclor-1242	42	UJ	ug/kg	42	42	UJ	ug/kg	42	45	UJ	ug/kg	45	54	UJ	ug/kg	54
Aroclor-1248	42	UJ	ug/kg	42	42	UJ	ug/kg	42	45	UJ	ug/kg	45	54	UJ	ug/kg	54
Aroclor-1254	42	UJ	ug/kg	42	42	UJ	ug/kg	42	45	UJ	ug/kg	45	54	UJ	ug/kg	54
Aroclor-1260	42	UJ	ug/kg	42	42	UJ	ug/kg	42	45	UJ	ug/kg	45	54	UJ	ug/kg	54

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FKJ			
Site	CECIL8			
Locator	CF3SS24D			
Collect Date:	20-NOV-94			
	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW				
alpha-BHC	3	U	ug/kg	3
beta-BHC	3	U	ug/kg	3
delta-BHC	3	U	ug/kg	3
gamma-BHC (Lindane)	3	U	ug/kg	3
Heptachlor	3	U	ug/kg	3
Aldrin	3	U	ug/kg	3
Heptachlor epoxide	3	U	ug/kg	3
Endosulfan I	5.9	U	ug/kg	5.9
Dieldrin	5.9	U	ug/kg	5.9
4,4-DDE	5.9	U	ug/kg	5.9
Endrin	.4	J	ug/kg	6
Endosulfan II	5.9	U	ug/kg	5.9
4,4-DDD	5.9	U	ug/kg	5.9
Endosulfan sulfate	5.9	U	ug/kg	5.9
4,4-DDT	30	U	ug/kg	30
Methoxychlor	5.9	U	ug/kg	5.9
Endrin ketone	5.9	U	ug/kg	5.9
Endrin aldehyde	.21	J	ug/kg	3
alpha-Chlordane	3	U	ug/kg	3
gamma-Chlordane	300	U	ug/kg	300
Toxaphene	59	U	ug/kg	59
Aroclor-1016	120	U	ug/kg	120
Aroclor-1221	59	U	ug/kg	59
Aroclor-1232	59	U	ug/kg	59
Aroclor-1242	59	U	ug/kg	59
Aroclor-1248	59	U	ug/kg	59
Aroclor-1254	59	U	ug/kg	59
Aroclor-1260	59	U	ug/kg	59

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FN2				A1DVR				A1DVV				A1DW0			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS1				CF3SS2				CF3SS3				CF3SS4			
Collect Date:	20-NOV-94				18-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	1560		mg/kg	40	1710		mg/kg	40	1620		mg/kg	40	1630		mg/kg	40
Antimony	.48	U	mg/kg	12	.47	UJ	mg/kg	12	.49	UJ	mg/kg	12	.5	UJ	mg/kg	12
Arsenic	.72	U	mg/kg	20	.7	UJ	mg/kg	20	.73	UJ	mg/kg	20	.75	UJ	mg/kg	20
Barium	1.6	U	mg/kg	40	11.7		mg/kg	40	4.7		mg/kg	40	3		mg/kg	40
Beryllium	.24	U	mg/kg	1	.23	U	mg/kg	1	.24	U	mg/kg	1	.25	U	mg/kg	1
Cadmium	.24	U	mg/kg	1	.86		mg/kg	1	.24	U	mg/kg	1	.25	U	mg/kg	1
Calcium	145	U	mg/kg	1000	734	J	mg/kg	1000	513	J	mg/kg	1000	21600	J	mg/kg	1000
Chromium	.84	U	mg/kg	2	2.6	U	mg/kg	2	.88	U	mg/kg	2	2.5	U	mg/kg	2
Cobalt	.48	U	mg/kg	10	.47	U	mg/kg	10	.49	U	mg/kg	10	.5	U	mg/kg	10
Copper	.75	U	mg/kg	5	12.5		mg/kg	5	2.6		mg/kg	5	.62		mg/kg	5
Iron	211		mg/kg	20	815		mg/kg	20	538		mg/kg	20	439		mg/kg	20
Lead	2.3		mg/kg	.6	6.3		mg/kg	.6	3		mg/kg	.6	4.3		mg/kg	.6
Magnesium	21.5	U	mg/kg	1000	99.2		mg/kg	1000	77.7		mg/kg	1000	177		mg/kg	1000
Manganese	1.3	U	mg/kg	3	13.6		mg/kg	3	8.4		mg/kg	3	8.9		mg/kg	3
Mercury	.12	UJ	mg/kg	.1	.16	J	mg/kg	.1	.13	U	mg/kg	.1	.13	U	mg/kg	.1
Nickel	.57	U	mg/kg	8	1.1	U	mg/kg	8	.67	U	mg/kg	8	1.5	U	mg/kg	8
Potassium	17.1	U	mg/kg	1000	29		mg/kg	1000	24.1		mg/kg	1000	35.6		mg/kg	1000
Selenium	.96	U	mg/kg	1	.94	U	mg/kg	1	.97	U	mg/kg	1	1	U	mg/kg	1
Silver	.24	U	mg/kg	2	1.4		mg/kg	2	.24	U	mg/kg	2	.25	U	mg/kg	2
Sodium	158	U	mg/kg	1000	142		mg/kg	1000	122		mg/kg	1000	189		mg/kg	1000
Thallium	1.4	U	mg/kg	2	1.4	U	mg/kg	2	1.5	U	mg/kg	2	1.5	U	mg/kg	2
Vanadium	1.2		mg/kg	10	1.7		mg/kg	10	1.8		mg/kg	10	2.4		mg/kg	10
Zinc	4.6	U	mg/kg	4	28.7		mg/kg	4	4.4	U	mg/kg	4	3.3	U	mg/kg	4
Cyanide	.59	U	mg/kg	.5	.57	U	mg/kg	.5	.6	U	mg/kg	.5	.58	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1DW2				A1DW4				A1FDQ				A1FDX			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS5				CF3SS6				CF3SS7				CF3SS8			
Collect Date:	18-NOV-94				18-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	1640		mg/kg	40	964		mg/kg	40	1520	J	mg/kg	40	1900	J	mg/kg	40
Antimony	.47	UJ	mg/kg	12	.5	UJ	mg/kg	12	.48	UJ	mg/kg	12	.58	UJ	mg/kg	12
Arsenic	.71	UJ	mg/kg	20	.75	UJ	mg/kg	20	.71	UJ	mg/kg	20	.87	UJ	mg/kg	20
Barium	2.9		mg/kg	40	2.6		mg/kg	40	4.9	J	mg/kg	40	3.7	J	mg/kg	40
Beryllium	.24	U	mg/kg	1	.25	U	mg/kg	1	.24	UJ	mg/kg	1	.29	UJ	mg/kg	1
Cadmium	.24	U	mg/kg	1	.25	U	mg/kg	1	.24	UJ	mg/kg	1	.29	UJ	mg/kg	1
Calcium	4560	J	mg/kg	1000	66100	J	mg/kg	1000	57500	J	mg/kg	1000	544	J	mg/kg	1000
Chromium	1.2	U	mg/kg	2	2.3	U	mg/kg	2	2.5	UJ	mg/kg	2	1	UJ	mg/kg	2
Cobalt	.47	U	mg/kg	10	.5	U	mg/kg	10	.48	UJ	mg/kg	10	.58	UJ	mg/kg	10
Copper	.48		mg/kg	5	1.5		mg/kg	5	1.6	J	mg/kg	5	.77	J	mg/kg	5
Iron	428		mg/kg	20	355		mg/kg	20	774	J	mg/kg	20	511	J	mg/kg	20
Lead	3		mg/kg	.6	5.5		mg/kg	.6	5.5	J	mg/kg	.6	2.3	J	mg/kg	.6
Magnesium	93.7		mg/kg	1000	428		mg/kg	1000	628	J	mg/kg	1000	58	J	mg/kg	1000
Manganese	7.9		mg/kg	3	11.8		mg/kg	3	21.2	J	mg/kg	3	6.9	J	mg/kg	3
Mercury	.12	U	mg/kg	.1	.12	U	mg/kg	.1	.12	UJ	mg/kg	.1	.14	UJ	mg/kg	.1
Nickel	.62	U	mg/kg	8	.5	U	mg/kg	8	1.5	J	mg/kg	8	.74	UJ	mg/kg	8
Potassium	25.6		mg/kg	1000	43.7		mg/kg	1000	106	J	mg/kg	1000	40.1	J	mg/kg	1000
Selenium	.95	U	mg/kg	1	1	U	mg/kg	1	.95	UJ	mg/kg	1	1.2	UJ	mg/kg	1
Silver	.24	U	mg/kg	2	.25	U	mg/kg	2	.24	UJ	mg/kg	2	.29	UJ	mg/kg	2
Sodium	136		mg/kg	1000	241		mg/kg	1000	240	J	mg/kg	1000	164	J	mg/kg	1000
Thallium	1.4	U	mg/kg	2	1.5	U	mg/kg	2	1.4	UJ	mg/kg	2	1.7	UJ	mg/kg	2
Vanadium	1.9		mg/kg	10	2.4		mg/kg	10	4.6	J	mg/kg	10	2	J	mg/kg	10
Zinc	2.5	U	mg/kg	4	4.7	U	mg/kg	4	13.5	J	mg/kg	4	5	UJ	mg/kg	4
Cyanide	.54	U	mg/kg	.5	.53	U	mg/kg	.5	.59	UJ	mg/kg	.5	.73	UJ	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FE4				A1FEE				A1FEH				A1FF5			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS9				CF3SS10				CF3SS10D				CF3SS11			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	2010		mg/kg	40	1390		mg/kg	40	1590		mg/kg	40	540	J	mg/kg	40
Antimony	.5	UJ	mg/kg	12	.46	UJ	mg/kg	12	.48	UJ	mg/kg	12	.59	U	mg/kg	12
Arsenic	.74	UJ	mg/kg	20	.7	UJ	mg/kg	20	.72	UJ	mg/kg	20	.88	UJ	mg/kg	20
Barium	20.5		mg/kg	40	2.9		mg/kg	40	3.4		mg/kg	40	4.1		mg/kg	40
Beryllium	.25	U	mg/kg	1	.23	U	mg/kg	1	.24	U	mg/kg	1	.29	U	mg/kg	1
Cadmium	1.4		mg/kg	1	.23	U	mg/kg	1	.24	U	mg/kg	1	.29	U	mg/kg	1
Calcium	4050	J	mg/kg	1000	8680	J	mg/kg	1000	5040	J	mg/kg	1000	2560	J	mg/kg	1000
Chromium	4.3	U	mg/kg	2	1	U	mg/kg	2	1.1	U	mg/kg	2	.59	U	mg/kg	2
Cobalt	.5	U	mg/kg	10	.46	U	mg/kg	10	.48	U	mg/kg	10	.59	U	mg/kg	10
Copper	30.7		mg/kg	5	1.1		mg/kg	5	.54		mg/kg	5	1.9		mg/kg	5
Iron	1540		mg/kg	20	302		mg/kg	20	517		mg/kg	20	562	J	mg/kg	20
Lead	7.4		mg/kg	.6	3.1		mg/kg	.6	3.1		mg/kg	.6	2.9		mg/kg	.6
Magnesium	117		mg/kg	1000	98.5		mg/kg	1000	80.1		mg/kg	1000	234		mg/kg	1000
Manganese	7.5		mg/kg	3	4		mg/kg	3	3.9		mg/kg	3	8.6	J	mg/kg	3
Mercury	.32	J	mg/kg	.1	.11	U	mg/kg	.1	.11	U	mg/kg	.1	.15	UJ	mg/kg	.1
Nickel	1.4	U	mg/kg	8	.46	U	mg/kg	8	.81	U	mg/kg	8	.59	U	mg/kg	8
Potassium	34.9		mg/kg	1000	29.5		mg/kg	1000	22.6		mg/kg	1000	68.5		mg/kg	1000
Selenium	.99	U	mg/kg	1	.93	U	mg/kg	1	.96	U	mg/kg	1	1.2	UJ	mg/kg	1
Silver	1.8		mg/kg	2	.23	U	mg/kg	2	.24	U	mg/kg	2	.29	U	mg/kg	2
Sodium	151		mg/kg	1000	173		mg/kg	1000	128		mg/kg	1000	191	U	mg/kg	1000
Thallium	1.5	U	mg/kg	2	1.4	U	mg/kg	2	1.4	U	mg/kg	2	1.8	UJ	mg/kg	2
Vanadium	1.9		mg/kg	10	1.4		mg/kg	10	2.1		mg/kg	10	1.4		mg/kg	10
Zinc	37.8		mg/kg	4	4.3	U	mg/kg	4	2.2	U	mg/kg	4	7.6	U	mg/kg	4
Cyanide	.62	U	mg/kg	.5	.57	U	mg/kg	.5	.59	U	mg/kg	.5	.73	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FFA				A1FFE				A1FFP				A1FFR			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS12				CF3SS13				CF3SS14				CF3SS15			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	628	J	mg/kg	40	830	J	mg/kg	40	1470	J	mg/kg	40	1220	J	mg/kg	40
Antimony	.59	U	mg/kg	12	.59	U	mg/kg	12	2.1		mg/kg	12	.53	U	mg/kg	12
Arsenic	.88	UJ	mg/kg	20	.88	UJ	mg/kg	20	.76	UJ	mg/kg	20	.8	UJ	mg/kg	20
Barium	2.5		mg/kg	40	3.2		mg/kg	40	2.8		mg/kg	40	3.2		mg/kg	40
Beryllium	.29	U	mg/kg	1	.29	U	mg/kg	1	.25	U	mg/kg	1	.27	U	mg/kg	1
Cadmium	.29	U	mg/kg	1	.29	U	mg/kg	1	.25	U	mg/kg	1	.27	U	mg/kg	1
Calcium	2100	J	mg/kg	1000	1040	J	mg/kg	1000	3200	J	mg/kg	1000	20700	J	mg/kg	1000
Chromium	.59	U	mg/kg	2	1.4		mg/kg	2	.86		mg/kg	2	1.5		mg/kg	2
Cobalt	.59	U	mg/kg	10	.59	U	mg/kg	10	.5	U	mg/kg	10	.53	U	mg/kg	10
Copper	1.2		mg/kg	5	2.1		mg/kg	5	1.1		mg/kg	5	1.2		mg/kg	5
Iron	305	J	mg/kg	20	456	J	mg/kg	20	422	J	mg/kg	20	460	J	mg/kg	20
Lead	3.4		mg/kg	.6	6		mg/kg	.6	258		mg/kg	.6	16		mg/kg	.6
Magnesium	104		mg/kg	1000	70.8		mg/kg	1000	69.9		mg/kg	1000	226		mg/kg	1000
Manganese	6	J	mg/kg	3	3.2	J	mg/kg	3	6.4	J	mg/kg	3	8.2	J	mg/kg	3
Mercury	.15	UJ	mg/kg	.1	.15	UJ	mg/kg	.1	.13	UJ	mg/kg	.1	.13	UJ	mg/kg	.1
Nickel	.59	U	mg/kg	8	.76		mg/kg	8	.57		mg/kg	8	.65		mg/kg	8
Potassium	40.9		mg/kg	1000	33.9		mg/kg	1000	31.3		mg/kg	1000	37.4		mg/kg	1000
Selenium	1.2	R	mg/kg	1	1.2	R	mg/kg	1	1	R	mg/kg	1	1.1	R	mg/kg	1
Silver	.29	U	mg/kg	2	.29	U	mg/kg	2	.25	U	mg/kg	2	.27	U	mg/kg	2
Sodium	229	U	mg/kg	1000	238	U	mg/kg	1000	170	U	mg/kg	1000	203	U	mg/kg	1000
Thallium	1.8	UJ	mg/kg	2	1.8	UJ	mg/kg	2	1.5	UJ	mg/kg	2	1.6	UJ	mg/kg	2
Vanadium	1.3		mg/kg	10	1.4		mg/kg	10	1.6	J	mg/kg	10	2.3		mg/kg	10
Zinc	8.3	U	mg/kg	4	8.2	U	mg/kg	4	5.4	U	mg/kg	4	8.2	U	mg/kg	4
Cyanide	.73	U	mg/kg	.5	.73	U	mg/kg	.5	.63	U	mg/kg	.5	.67	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:		A1FFW				A1FG1				A1FG3				A1FG8		
Site		CECIL8				CECIL8				CECIL8				CECIL8		
Locator		CF3SS16				CF3SS17				CF3SS18				CF3SS19		
Collect Date:		19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	527	J	mg/kg	40	1400	J	mg/kg	40	1570	J	mg/kg	40	1750	J	mg/kg	40
Antimony	.25	U	mg/kg	12	.48	U	mg/kg	12	.48	U	mg/kg	12	.49	U	mg/kg	12
Arsenic	.37	UJ	mg/kg	20	.72	UJ	mg/kg	20	.71	UJ	mg/kg	20	.73	UJ	mg/kg	20
Barium	2.1		mg/kg	40	4.9		mg/kg	40	8.3		mg/kg	40	27.6		mg/kg	40
Beryllium	.12	U	mg/kg	1	.24	U	mg/kg	1	.24	U	mg/kg	1	.24	U	mg/kg	1
Cadmium	.12	U	mg/kg	1	.29		mg/kg	1	.24		mg/kg	1	2.6		mg/kg	1
Calcium	630	J	mg/kg	1000	1250	J	mg/kg	1000	1090	J	mg/kg	1000	4450	J	mg/kg	1000
Chromium	.4		mg/kg	2	1.7		mg/kg	2	1.8		mg/kg	2	6.2		mg/kg	2
Cobalt	.25	U	mg/kg	10	.48	U	mg/kg	10	.48	U	mg/kg	10	.49	U	mg/kg	10
Copper	.76		mg/kg	5	5.6		mg/kg	5	8.7		mg/kg	5	42.4		mg/kg	5
Iron	185	J	mg/kg	20	618	J	mg/kg	20	659	J	mg/kg	20	2100	J	mg/kg	20
Lead	2.4		mg/kg	.6	3.9		mg/kg	.6	15.7		mg/kg	.6	12.5		mg/kg	.6
Magnesium	106		mg/kg	1000	218		mg/kg	1000	135		mg/kg	1000	245		mg/kg	1000
Manganese	5.2	J	mg/kg	3	10.2	J	mg/kg	3	41.5	J	mg/kg	3	16.5	J	mg/kg	3
Mercury	.12	UJ	mg/kg	.1	.11	UJ	mg/kg	.1	.11	UJ	mg/kg	.1	.29	J	mg/kg	.1
Nickel	.25	U	mg/kg	8	.65		mg/kg	8	1.1		mg/kg	8	2.4		mg/kg	8
Potassium	12.6	U	mg/kg	1000	28.4	U	mg/kg	1000	33.9		mg/kg	1000	42.6		mg/kg	1000
Selenium	.5	R	mg/kg	1	.96	R	mg/kg	1	.95	R	mg/kg	1	.97	R	mg/kg	1
Silver	.12	U	mg/kg	2	.33		mg/kg	2	.45		mg/kg	2	4.4		mg/kg	2
Sodium	79.9	U	mg/kg	1000	166	U	mg/kg	1000	157	U	mg/kg	1000	180	U	mg/kg	1000
Thallium	.75	UJ	mg/kg	2	1.4	UJ	mg/kg	2	1.4	UJ	mg/kg	2	1.5	UJ	mg/kg	2
Vanadium	.79		mg/kg	10	2		mg/kg	10	2.1		mg/kg	10	2		mg/kg	10
Zinc	2.7	U	mg/kg	4	22.7		mg/kg	4	15.9		mg/kg	4	93.9		mg/kg	4
Cyanide	.62	U	mg/kg	.5	.6	U	mg/kg	.5	.59	U	mg/kg	.5	.61	U	mg/kg	.5

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FGD				A1FGF				A1FGM				A1FGW			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS20				CF3SS20D				CF3SS21				CF3SS22			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	651	J	mg/kg	40	1580	J	mg/kg	40	1490	J	mg/kg	40	1420	J	mg/kg	40
Antimony	.47	U	mg/kg	12	.56	U	mg/kg	12	.52	U	mg/kg	12	.51	U	mg/kg	12
Arsenic	.71	UJ	mg/kg	20	.85	UJ	mg/kg	20	.77	UJ	mg/kg	20	.77	UJ	mg/kg	20
Barium	2.1		mg/kg	40	6.2		mg/kg	40	1.8		mg/kg	40	4.4		mg/kg	40
Beryllium	.24	U	mg/kg	1	.28	U	mg/kg	1	.26	U	mg/kg	1	.26	U	mg/kg	1
Cadmium	.24	U	mg/kg	1	.28	U	mg/kg	1	.26	U	mg/kg	1	.26	U	mg/kg	1
Calcium	13800	J	mg/kg	1000	57200	J	mg/kg	1000	8700	J	mg/kg	1000	643	J	mg/kg	1000
Chromium	3.2		mg/kg	2	5		mg/kg	2	1.3		mg/kg	2	.93		mg/kg	2
Cobalt	.47	U	mg/kg	10	.56	U	mg/kg	10	.52	U	mg/kg	10	.51	U	mg/kg	10
Copper	1.6		mg/kg	5	1.8		mg/kg	5	1.3		mg/kg	5	.51	U	mg/kg	5
Iron	248	J	mg/kg	20	1860	J	mg/kg	20	419	J	mg/kg	20	196	J	mg/kg	20
Lead	5.4		mg/kg	.6	6		mg/kg	.6	2.2		mg/kg	.6	2.7		mg/kg	.6
Magnesium	124		mg/kg	1000	3120		mg/kg	1000	133		mg/kg	1000	164		mg/kg	1000
Manganese	20.8	J	mg/kg	3	46.5	J	mg/kg	3	5.1	J	mg/kg	3	2.6	J	mg/kg	3
Mercury	.11	UJ	mg/kg	.1	.15	UJ	mg/kg	.1	.13	UJ	mg/kg	.1	.14	UJ	mg/kg	.1
Nickel	1.6		mg/kg	8	2		mg/kg	8	.67		mg/kg	8	.51	U	mg/kg	8
Potassium	25.8	U	mg/kg	1000	97.8		mg/kg	1000	39.6		mg/kg	1000	25	U	mg/kg	1000
Selenium	1	J	mg/kg	1	1.1	R	mg/kg	1	1	R	mg/kg	1	1	R	mg/kg	1
Silver	.24	U	mg/kg	2	.28	U	mg/kg	2	.26	U	mg/kg	2	.26	U	mg/kg	2
Sodium	184	U	mg/kg	1000	309	U	mg/kg	1000	226	U	mg/kg	1000	184	U	mg/kg	1000
Thallium	1.4	UJ	mg/kg	2	1.7	UJ	mg/kg	2	1.5	UJ	mg/kg	2	1.5	UJ	mg/kg	2
Vanadium	1.3		mg/kg	10	5.5		mg/kg	10	1.8		mg/kg	10	1.2		mg/kg	10
Zinc	6.1	U	mg/kg	4	16.4	U	mg/kg	4	13.8	U	mg/kg	4	5.8	U	mg/kg	4
Cyanide	.59	U	mg/kg	.5	.7	U	mg/kg	.5	.64	U	mg/kg	.5	.64	U	mg/kg	.5

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FH5				A1FH9				A1FKJ				
Site	CECIL8				CECIL8				CECIL8				
Locator	CF3SS23				CF3SS24				CF3SS24D				
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	970	J	mg/kg	40	543	J	mg/kg	40	553		mg/kg	40
Antimony	.53	U	mg/kg	12	.67	U	mg/kg	12	.72	U	mg/kg	12
Arsenic	.8	UJ	mg/kg	20	1	UJ	mg/kg	20	1.1	U	mg/kg	20
Barium	3.8		mg/kg	40	8		mg/kg	40	8.6		mg/kg	40
Beryllium	.27	U	mg/kg	1	.33	U	mg/kg	1	.36	U	mg/kg	1
Cadmium	.27	U	mg/kg	1	.33	U	mg/kg	1	.36	U	mg/kg	1
Calcium	722	J	mg/kg	1000	2100	J	mg/kg	1000	3220		mg/kg	1000
Chromium	.95		mg/kg	2	.81		mg/kg	2	.82	U	mg/kg	2
Cobalt	.53	U	mg/kg	10	.67	U	mg/kg	10	.72	U	mg/kg	10
Copper	1.2		mg/kg	5	2.1		mg/kg	5	2.5	U	mg/kg	5
Iron	284	J	mg/kg	20	348	J	mg/kg	20	369		mg/kg	20
Lead	4.2		mg/kg	.6	5.6		mg/kg	.6	6.2		mg/kg	.6
Magnesium	105		mg/kg	1000	135		mg/kg	1000	157		mg/kg	1000
Manganese	4.2	J	mg/kg	3	3.6	J	mg/kg	3	6.2		mg/kg	3
Mercury	105	UJ	mg/kg	.1	.17	UJ	mg/kg	.1	.19	UJ	mg/kg	.1
Nickel	4.2	U	mg/kg	8	.67	U	mg/kg	8	.89	U	mg/kg	8
Potassium	40.4		mg/kg	1000	46.6		mg/kg	1000	40.9		mg/kg	1000
Selenium	1.1	R	mg/kg	1	1.3	R	mg/kg	1	1.4	U	mg/kg	1
Silver	.27	U	mg/kg	2	.33	U	mg/kg	2	.36	U	mg/kg	2
Sodium	214	U	mg/kg	1000	253	U	mg/kg	1000	284	U	mg/kg	1000
Thallium	1.6	UJ	mg/kg	2	2	UJ	mg/kg	2	2.2	U	mg/kg	2
Vanadium	1.4		mg/kg	10	1.5		mg/kg	10	1.6		mg/kg	10
Zinc	8.6	U	mg/kg	4	10.8	U	mg/kg	4	11.3	U	mg/kg	4
Cyanide	.67	U	mg/kg	.5	.83	U	mg/kg	.5	.89	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1FC4				A1DVA				A1DVE				A1DVJ			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS1				CF3SS2				CF3SS3				CF3SS4			
Collect Date:	20-NOV-94				18-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	12	U	mg/kg	12	12	U	mg/kg	12	12	U	mg/kg	12	12	U	mg/kg	12

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1DVL				A1DVN				A1F8T				A1F8X			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS5				CF3SS6				CF3SS7				CF3SS8			
Collect Date:	18-NOV-94				18-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	12	U	mg/kg	12	68		mg/kg	12	110	J	mg/kg	13	12	UJ	mg/kg	12

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1F92				A1F95				A1F9A				A1F9J			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS9				CF3SS10				CF3SS10D				CF3SS11			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	12	U	mg/kg	12	12	U	mg/kg	12	12	U	mg/kg	12	29		mg/kg	15

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1F9L				A1F9Q				A1F9T				A1F9V			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS12				CF3SS13				CF3SS14				CF3SS15			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	370		mg/kg	29	16	U	mg/kg	16	12	U	mg/kg	12	61		mg/kg	14

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1F9W			A1F9X			A1FA0			A1FA1		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SS16			CF3SS17			CF3SS18			CF3SS19		
Collect Date:	19-NOV-94			19-NOV-94			19-NOV-94			19-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
Total petroleum hydrocarbons	12 U	mg/kg	12	12 U	mg/kg	12	12 U	mg/kg	12	12 U	mg/kg	12

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1FA2			A1FA4			A1FA5			A1FA6		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SS20			CF3SS20D			CF3SS21			CF3SS22		
Collect Date:	20-NOV-94			20-NOV-94			20-NOV-94			20-NOV-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Total petroleum hydrocarbons	200	mg/kg	14	340	mg/kg	24	13 U	mg/kg	13	15 U	mg/kg	15

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1FA8				A1FA9				A1FAG			
Site	CECIL8				CECIL8				CECIL8			
Locator	CF3SS23				CF3SS24				CF3SS24D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	13	U	mg/kg	13	68		mg/kg	17	140		mg/kg	17

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- VOLATILES

	Lab Sample Number:	A1DVX				A1FN6				A1DVT				A1FDT			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3SB3				CF3SB1				CF3SB2				CF3SB7			
	Collect Date:	18-NOV-94				20-NOV-94				18-NOV-94				19-NOV-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																	
Chloromethane		13	UJ	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	64	UJ	ug/kg	64
Bromomethane		13	UJ	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	64	UJ	ug/kg	64
Vinyl chloride		13	UJ	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	64	UJ	ug/kg	64
Chloroethane		13	UJ	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	64	UJ	ug/kg	64
Methylene chloride		6	UJ	ug/kg	6	4	J	ug/kg	12	6	U	ug/kg	6	32	UJ	ug/kg	32
Acetone		13	UJ	ug/kg	13	12	UJ	ug/kg	12	12	UJ	ug/kg	12	90	UJ	ug/kg	90
Carbon disulfide		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
1,1-Dichloroethene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
1,1-Dichloroethane		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
1,2-Dichloroethene (total)		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Chloroform		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
1,2-Dichloroethane		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
2-Butanone		13	UJ	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	16	J	ug/kg	64
1,1,1-Trichloroethane		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Carbon tetrachloride		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Bromodichloromethane		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
1,2-Dichloropropane		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
cis-1,3-Dichloropropene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Trichloroethene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Dibromochloromethane		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
1,1,2-Trichloroethane		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Benzene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
trans-1,3-Dichloropropene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Bromoform		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
4-Methyl-2-pentanone		13	UJ	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	64	UJ	ug/kg	64
2-Hexanone		13	UJ	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	64	UJ	ug/kg	64
Tetrachloroethene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Toluene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
1,1,2,2-Tetrachloroethane		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Chlorobenzene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Ethylbenzene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Styrene		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32
Xylenes (total)		6	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	32	UJ	ug/kg	32

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A1DVX				A1DW1				A1DW3				A1DW5			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB3				CF3SB4				CF3SB5				CF3SB6			
Collect Date:	18-NOV-94				18-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	13	UJ	ug/kg	13	12	U	ug/kg	12	1500	UJ	ug/kg	1500	1500	UJ	ug/kg	1500
Bromomethane	13	UJ	ug/kg	13	12	U	ug/kg	12	1500	UJ	ug/kg	1500	1500	UJ	ug/kg	1500
Vinyl chloride	13	UJ	ug/kg	13	12	U	ug/kg	12	1500	UJ	ug/kg	1500	1500	UJ	ug/kg	1500
Chloroethane	13	UJ	ug/kg	13	12	U	ug/kg	12	1500	UJ	ug/kg	1500	1500	UJ	ug/kg	1500
Methylene chloride	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Acetone	13	UJ	ug/kg	13	12	UJ	ug/kg	12	1500	UJ	ug/kg	1500	1500	UJ	ug/kg	1500
Carbon disulfide	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
1,1-Dichloroethene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
1,1-Dichloroethane	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
1,2-Dichloroethene (total)	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Chloroform	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
1,2-Dichloroethane	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
2-Butanone	13	UJ	ug/kg	13	12	U	ug/kg	12	1500	UJ	ug/kg	1500	1500	UJ	ug/kg	1500
1,1,1-Trichloroethane	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Carbon tetrachloride	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Bromodichloromethane	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
1,2-Dichloropropane	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
cis-1,3-Dichloropropene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Trichloroethene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Dibromochloromethane	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
1,1,2-Trichloroethane	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Benzene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
trans-1,3-Dichloropropene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Bromoform	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
4-Methyl-2-pentanone	13	UJ	ug/kg	13	12	U	ug/kg	12	1500	UJ	ug/kg	1500	1500	UJ	ug/kg	1500
2-Hexanone	13	UJ	ug/kg	13	12	U	ug/kg	12	1500	UJ	ug/kg	1500	1500	UJ	ug/kg	1500
Tetrachloroethene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Toluene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
1,1,2,2-Tetrachloroethane	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Chlorobenzene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Ethylbenzene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Styrene	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760
Xylenes (total)	6	UJ	ug/kg	6	6	U	ug/kg	6	760	UJ	ug/kg	760	760	UJ	ug/kg	760

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FDT				A1FE2				A1FE9				A1FEX			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB7				CF3SB8				CF3SB9				CF3SB10			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	64	UJ	ug/kg	64	13	UJ	ug/kg	13	13	U	ug/kg	13	12	U	ug/kg	12
Bromomethane	64	UJ	ug/kg	64	13	UJ	ug/kg	13	13	U	ug/kg	13	12	U	ug/kg	12
Vinyl chloride	64	UJ	ug/kg	64	13	UJ	ug/kg	13	13	U	ug/kg	13	12	U	ug/kg	12
Chloroethane	64	UJ	ug/kg	64	13	UJ	ug/kg	13	13	U	ug/kg	13	12	U	ug/kg	12
Methylene chloride	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	90	UJ	ug/kg	90	13	UJ	ug/kg	13	27	U	ug/kg	27	12	U	ug/kg	12
Carbon disulfide	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	UJ	ug/kg	6
1,1-Dichloroethane	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	16	J	ug/kg	64	13	UJ	ug/kg	13	3	J	ug/kg	13	12	U	ug/kg	12
1,1,1-Trichloroethane	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Dibromochloromethane	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	64	UJ	ug/kg	64	13	UJ	ug/kg	13	13	U	ug/kg	13	12	U	ug/kg	12
2-Hexanone	64	UJ	ug/kg	64	13	UJ	ug/kg	13	13	U	ug/kg	13	12	U	ug/kg	12
Tetrachloroethene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	32	UJ	ug/kg	32	7	UJ	ug/kg	7	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FF3				A1FF8				A1FFD				A1FFG			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB10D				CF3SB11				CF3SB12				CF3SB13			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	13	U	ug/kg	13	14	U	ug/kg	14	16	U	ug/kg	16	15	U	ug/kg	15
Bromomethane	13	U	ug/kg	13	14	U	ug/kg	14	16	U	ug/kg	16	15	U	ug/kg	15
Vinyl chloride	13	U	ug/kg	13	14	U	ug/kg	14	16	U	ug/kg	16	15	U	ug/kg	15
Chloroethane	13	U	ug/kg	13	14	U	ug/kg	14	16	U	ug/kg	16	15	U	ug/kg	15
Methylene chloride	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Acetone	13	U	ug/kg	13	21	U	ug/kg	21	26	U	ug/kg	26	26	U	ug/kg	26
Carbon disulfide	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
1,1-Dichloroethene	6	UJ	ug/kg	6	18	J	ug/kg	14	23	J	ug/kg	16	20	J	ug/kg	15
1,1-Dichloroethane	6	U	ug/kg	6	3	J	ug/kg	14	8	U	ug/kg	8	8	U	ug/kg	8
1,2-Dichloroethene (total)	6	U	ug/kg	6	12		ug/kg	14	18		ug/kg	16	15		ug/kg	15
Chloroform	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
1,2-Dichloroethane	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
2-Butanone	13	U	ug/kg	13	7	U	ug/kg	7	6	J	ug/kg	16	8	U	ug/kg	8
1,1,1-Trichloroethane	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Carbon tetrachloride	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Bromodichloromethane	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
1,2-Dichloropropane	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
cis-1,3-Dichloropropene	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Trichloroethene	6	U	ug/kg	6	5	J	ug/kg	14	66		ug/kg	16	38		ug/kg	15
Dibromochloromethane	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
1,1,2-Trichloroethane	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Benzene	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
trans-1,3-Dichloropropene	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Bromoform	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
4-Methyl-2-pentanone	13	U	ug/kg	13	14	U	ug/kg	14	16	U	ug/kg	16	15	U	ug/kg	15
2-Hexanone	13	U	ug/kg	13	14	U	ug/kg	14	16	U	ug/kg	16	15	U	ug/kg	15
Tetrachloroethene	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Toluene	6	U	ug/kg	6	11		ug/kg	14	28		ug/kg	16	8	U	ug/kg	8
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Chlorobenzene	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Ethylbenzene	6	U	ug/kg	6	3	J	ug/kg	14	8	U	ug/kg	8	8	U	ug/kg	8
Styrene	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8
Xylenes (total)	6	U	ug/kg	6	7	U	ug/kg	7	8	U	ug/kg	8	8	U	ug/kg	8

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FKN				A1FKW				A1FLA				A1FLV			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB25				CF3SB26				CF3SB27				CF3SB27D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	66	U	ug/kg	66	13	U	ug/kg	13	12	U	ug/kg	12
Bromomethane	12	U	ug/kg	12	66	U	ug/kg	66	13	U	ug/kg	13	12	U	ug/kg	12
Vinyl chloride	12	U	ug/kg	12	66	U	ug/kg	66	13	U	ug/kg	13	12	U	ug/kg	12
Chloroethane	12	U	ug/kg	12	66	U	ug/kg	66	13	U	ug/kg	13	12	U	ug/kg	12
Methylene chloride	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	12	U	ug/kg	12	66	U	ug/kg	66	13	U	ug/kg	13	12	U	ug/kg	12
Carbon disulfide	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	12	U	ug/kg	12	66	U	ug/kg	66	13	U	ug/kg	13	12	U	ug/kg	12
1,1,1-Trichloroethane	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	12	U	ug/kg	12	66	U	ug/kg	66	13	U	ug/kg	13	12	U	ug/kg	12
2-Hexanone	12	U	ug/kg	12	66	U	ug/kg	66	13	U	ug/kg	13	12	U	ug/kg	12
Tetrachloroethene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	33	U	ug/kg	33	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FM9			A1FMG			A1FMK			A1FMN		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SB28			CF3SB29			CF3SB30			CF3SB31		
Collect Date:	20-NOV-94			20-NOV-94			20-NOV-94			20-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	13 U	ug/kg	13	12 U	ug/kg	12	15 U	ug/kg	15	14 U	ug/kg	14
Bromomethane	13 U	ug/kg	13	12 U	ug/kg	12	15 U	ug/kg	15	14 U	ug/kg	14
Vinyl chloride	13 U	ug/kg	13	12 U	ug/kg	12	15 U	ug/kg	15	14 U	ug/kg	14
Chloroethane	13 U	ug/kg	13	12 U	ug/kg	12	15 U	ug/kg	15	14 U	ug/kg	14
Methylene chloride	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	5 J	ug/kg	14
Acetone	13 UJ	ug/kg	13	12 UJ	ug/kg	12	15 U	ug/kg	15	14 UJ	ug/kg	14
Carbon disulfide	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
1,1-Dichloroethene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
1,1-Dichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
1,2-Dichloroethene (total)	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Chloroform	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
1,2-Dichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
2-Butanone	13 U	ug/kg	13	12 U	ug/kg	12	15 U	ug/kg	15	14 U	ug/kg	14
1,1,1-Trichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Carbon tetrachloride	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Bromodichloromethane	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
1,2-Dichloropropane	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
cis-1,3-Dichloropropene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Trichloroethene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Dibromochloromethane	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
1,1,2-Trichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Benzene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
trans-1,3-Dichloropropene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Bromoform	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
4-Methyl-2-pentanone	13 U	ug/kg	13	12 U	ug/kg	12	15 U	ug/kg	15	14 U	ug/kg	14
2-Hexanone	13 U	ug/kg	13	12 U	ug/kg	12	15 U	ug/kg	15	14 U	ug/kg	14
Tetrachloroethene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Toluene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
1,1,2,2-Tetrachloroethane	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Chlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Ethylbenzene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Styrene	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7
Xylenes (total)	6 U	ug/kg	6	6 U	ug/kg	6	7 U	ug/kg	7	7 U	ug/kg	7

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A1FMQ				A1FNO			
Site	CECIL8				CECIL8			
Locator	CF3SB32				CF3SB32D			
Collect Date:	20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW								
Chloromethane	13	U	ug/kg	13	21	U	ug/kg	21
Bromomethane	13	U	ug/kg	13	21	U	ug/kg	21
Vinyl chloride	13	U	ug/kg	13	21	U	ug/kg	21
Chloroethane	13	U	ug/kg	13	21	U	ug/kg	21
Methylene chloride	4	J	ug/kg	13	6	J	ug/kg	21
Acetone	37	UJ	ug/kg	37	21	UJ	ug/kg	21
Carbon disulfide	6	U	ug/kg	6	10	U	ug/kg	10
1,1-Dichloroethene	6	U	ug/kg	6	10	U	ug/kg	10
1,1-Dichloroethane	6	U	ug/kg	6	10	U	ug/kg	10
1,2-Dichloroethene (total)	6	U	ug/kg	6	10	U	ug/kg	10
Chloroform	6	U	ug/kg	6	10	U	ug/kg	10
1,2-Dichloroethane	6	U	ug/kg	6	10	U	ug/kg	10
2-Butanone	4	J	ug/kg	13	21	U	ug/kg	21
1,1,1-Trichloroethane	6	U	ug/kg	6	10	U	ug/kg	10
Carbon tetrachloride	6	U	ug/kg	6	10	U	ug/kg	10
Bromodichloromethane	6	U	ug/kg	6	10	U	ug/kg	10
1,2-Dichloropropane	6	U	ug/kg	6	10	U	ug/kg	10
cis-1,3-Dichloropropene	6	U	ug/kg	6	10	U	ug/kg	10
Trichloroethene	6	U	ug/kg	6	10	U	ug/kg	10
Dibromochloromethane	6	U	ug/kg	6	10	U	ug/kg	10
1,1,2-Trichloroethane	6	U	ug/kg	6	10	U	ug/kg	10
Benzene	6	U	ug/kg	6	10	U	ug/kg	10
trans-1,3-Dichloropropene	6	U	ug/kg	6	10	U	ug/kg	10
Bromoform	6	U	ug/kg	6	10	U	ug/kg	10
4-Methyl-2-pentanone	13	U	ug/kg	13	21	U	ug/kg	21
2-Hexanone	13	U	ug/kg	13	21	U	ug/kg	21
Tetrachloroethene	6	U	ug/kg	6	10	U	ug/kg	10
Toluene	6	U	ug/kg	6	5	J	ug/kg	21
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	10	U	ug/kg	10
Chlorobenzene	6	U	ug/kg	6	10	U	ug/kg	10
Ethylbenzene	2	J	ug/kg	13	10	U	ug/kg	10
Styrene	6	U	ug/kg	6	10	U	ug/kg	10
Xylenes (total)	6	U	ug/kg	6	10	U	ug/kg	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FN6				A1DVT				A1DVX				A1DW1			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB1				CF3SB2				CF3SB3				CF3SB4			
Collect Date:	20-NOV-94				18-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
bis(2-Chloroethyl) ether	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2-Chlorophenol	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
1,3-Dichlorobenzene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
1,4-Dichlorobenzene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
1,2-Dichlorobenzene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2-Methylphenol	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2,2-oxybis(1-Chloropropane)	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
4-Methylphenol	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
N-Nitroso-di-n-propylamine	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Hexachloroethane	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Nitrobenzene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Isophorone	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2-Nitrophenol	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2,4-Dimethylphenol	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
bis(2-Chloroethoxy) methane	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2,4-Dichlorophenol	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
1,2,4-Trichlorobenzene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Naphthalene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
4-Chloroaniline	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Hexachlorobutadiene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
4-Chloro-3-methylphenol	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2-Methylnaphthalene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Hexachlorocyclopentadiene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2,4,6-Trichlorophenol	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2,4,5-Trichlorophenol	980	U	ug/kg	980	980	U	ug/kg	980	1000	UJ	ug/kg	1000	980	U	ug/kg	980
2-Chloronaphthalene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2-Nitroaniline	980	U	ug/kg	980	980	U	ug/kg	980	1000	UJ	ug/kg	1000	980	U	ug/kg	980
Dimethylphthalate	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Acenaphthylene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2,6-Dinitrotoluene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
3-Nitroaniline	980	U	ug/kg	980	980	U	ug/kg	980	1000	UJ	ug/kg	1000	980	U	ug/kg	980
Acenaphthene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2,4-Dinitrophenol	980	U	ug/kg	980	980	U	ug/kg	980	1000	UJ	ug/kg	1000	980	U	ug/kg	980
4-Nitrophenol	980	U	ug/kg	980	980	U	ug/kg	980	1000	UJ	ug/kg	1000	980	U	ug/kg	980
Dibenzofuran	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
2,4-Dinitrotoluene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Diethylphthalate	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
4-Chlorophenyl-phenylether	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Fluorene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
4-Nitroaniline	980	U	ug/kg	980	980	U	ug/kg	980	1000	UJ	ug/kg	1000	980	U	ug/kg	980
4,6-Dinitro-2-methylphenol	980	U	ug/kg	980	980	U	ug/kg	980	1000	UJ	ug/kg	1000	980	U	ug/kg	980
N-Nitrosodiphenylamine (1)	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
4-Bromophenyl-phenylether	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Hexachlorobenzene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Pentachlorophenol	980	U	ug/kg	980	980	U	ug/kg	980	1000	UJ	ug/kg	1000	980	U	ug/kg	980
Phenanthrene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Anthracene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Carbazole	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Di-n-butylphthalate	400	U	ug/kg	400	800		ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FN6				A1DVT				A1DVX				A1DW1			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB1				CF3SB2				CF3SB3				CF3SB4			
Collect Date:	20-NOV-94				18-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	400	U	ug/kg	400	30	J	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Pyrene	400	U	ug/kg	400	42	J	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Butylbenzylphthalate	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
3,3-Dichlorobenzidine	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Benzo (a) anthracene	400	U	ug/kg	400	23	J	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Chrysene	400	U	ug/kg	400	31	J	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
bis(2-Ethylhexyl) phthalate	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Di-n-octylphthalate	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Benzo (b) fluoranthene	400	U	ug/kg	400	32	J	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Benzo (k) fluoranthene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Benzo (a) pyrene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Indeno (1,2,3-cd) pyrene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Dibenz (a,h) anthracene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400
Benzo (g,h,i) perylene	400	U	ug/kg	400	400	U	ug/kg	400	440	UJ	ug/kg	440	400	U	ug/kg	400

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1DW3DL			A1DW5			A1FDT			A1FE2		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SB5DL			CF3SB6			CF3SB7			CF3SB8		
Collect Date:	18-NOV-94			18-NOV-94			19-NOV-94			19-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
bis(2-Chloroethyl) ether	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2-Chlorophenol	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
1,3-Dichlorobenzene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
1,4-Dichlorobenzene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
1,2-Dichlorobenzene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2-Methylphenol	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2,2-oxybis(1-Chloropropane)	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
4-Methylphenol	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
N-Nitroso-di-n-propylamine	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
Hexachloroethane	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
Nitrobenzene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
Isophorone	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2-Nitrophenol	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2,4-Dimethylphenol	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
bis(2-Chloroethoxy) methane	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2,4-Dichlorophenol	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
1,2,4-Trichlorobenzene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
Naphthalene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
4-Chloroaniline	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
Hexachlorobutadiene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
4-Chloro-3-methylphenol	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2-Methylnaphthalene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
Hexachlorocyclopentadiene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2,4,6-Trichlorophenol	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2,4,5-Trichlorophenol	2400 U	ug/kg	2400	970 U	ug/kg	970	1000 UJ	ug/kg	1000	1100 UJ	ug/kg	1100
2-Chloronaphthalene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2-Nitroaniline	2400 U	ug/kg	2400	970 U	ug/kg	970	1000 UJ	ug/kg	1000	1100 UJ	ug/kg	1100
Dimethylphthalate	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
Acenaphthylene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2,6-Dinitrotoluene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
3-Nitroaniline	2400 U	ug/kg	2400	970 U	ug/kg	970	1000 UJ	ug/kg	1000	1100 UJ	ug/kg	1100
Acenaphthene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2,4-Dinitrophenol	2400 U	ug/kg	2400	970 U	ug/kg	970	1000 UJ	ug/kg	1000	1100 UJ	ug/kg	1100
4-Nitrophenol	2400 U	ug/kg	2400	970 U	ug/kg	970	1000 UJ	ug/kg	1000	1100 UJ	ug/kg	1100
Dibenzofuran	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
2,4-Dinitrotoluene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
Diethylphthalate	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
4-Chlorophenyl-phenylether	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440
Fluorene	1000 U	ug/kg	1000	400 U	ug/kg	400	420 UJ	ug/kg	420	440 UJ	ug/kg	440

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1DW3DL				A1DW5				A1FDT				A1FE2			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB5DL				CF3SB6				CF3SB7				CF3SB8			
Collect Date:	18-NOV-94				18-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	2400	U	ug/kg	2400	970	U	ug/kg	970	1000	UJ	ug/kg	1000	1100	UJ	ug/kg	1100
4,6-Dinitro-2-methylphenol	2400	U	ug/kg	2400	970	U	ug/kg	970	1000	UJ	ug/kg	1000	1100	UJ	ug/kg	1100
N-Nitrosodiphenylamine (1)	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
4-Bromophenyl-phenylether	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Hexachlorobenzene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Pentachlorophenol	2400	U	ug/kg	2400	970	U	ug/kg	970	1000	UJ	ug/kg	1000	1100	UJ	ug/kg	1100
Phenanthrene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Anthracene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Carbazole	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Di-n-butylphthalate	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Fluoranthene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Pyrene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Butylbenzylphthalate	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
3,3-Dichlorobenzidine	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Benzo (a) anthracene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Chrysene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
bis(2-Ethylhexyl) phthalate	3900	U	ug/kg	3900	3000		ug/kg	400	270	J	ug/kg	420	440	UJ	ug/kg	440
Di-n-octylphthalate	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Benzo (b) fluoranthene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Benzo (k) fluoranthene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Benzo (a) pyrene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Indeno (1,2,3-cd) pyrene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Dibenz (a,h) anthracene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440
Benzo (g,h,i) perylene	1000	U	ug/kg	1000	400	U	ug/kg	400	420	UJ	ug/kg	420	440	UJ	ug/kg	440

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FE9			A1FEX			A1FF3			A1FF8		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SB9			CF3SB10			CF3SB10D			CF3SB11		
Collect Date:	19-NOV-94			19-NOV-94			19-NOV-94			19-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
bis(2-Chloroethyl) ether	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2-Chlorophenol	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
1,3-Dichlorobenzene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
1,4-Dichlorobenzene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
1,2-Dichlorobenzene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2-Methylphenol	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2,2-oxybis(1-Chloropropane)	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
4-Methylphenol	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
N-Nitroso-di-n-propylamine	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
Hexachloroethane	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
Nitrobenzene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
Isophorone	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2-Nitrophenol	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2,4-Dimethylphenol	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
bis(2-Chloroethoxy) methane	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2,4-Dichlorophenol	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
1,2,4-Trichlorobenzene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
Naphthalene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
4-Chloroaniline	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
Hexachlorobutadiene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
4-Chloro-3-methylphenol	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2-Methylnaphthalene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
Hexachlorocyclopentadiene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2,4,6-Trichlorophenol	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2,4,5-Trichlorophenol	1000 U	ug/kg	1000	990 U	ug/kg	990	1000 U	ug/kg	1000	1100 U	ug/kg	1100
2-Chloronaphthalene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2-Nitroaniline	1000 U	ug/kg	1000	990 U	ug/kg	990	1000 U	ug/kg	1000	1100 U	ug/kg	1100
Dimethylphthalate	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
Acenaphthylene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2,6-Dinitrotoluene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
3-Nitroaniline	1000 U	ug/kg	1000	990 U	ug/kg	990	1000 U	ug/kg	1000	1100 U	ug/kg	1100
Acenaphthene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2,4-Dinitrophenol	1000 U	ug/kg	1000	990 U	ug/kg	990	1000 U	ug/kg	1000	1100 U	ug/kg	1100
4-Nitrophenol	1000 U	ug/kg	1000	990 U	ug/kg	990	1000 U	ug/kg	1000	1100 U	ug/kg	1100
Dibenzofuran	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
2,4-Dinitrotoluene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
Diethylphthalate	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
4-Chlorophenyl-phenylether	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460
Fluorene	430 U	ug/kg	430	410 U	ug/kg	410	430 U	ug/kg	430	460 U	ug/kg	460

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FE9				A1FEX				A1FF3				A1FF8			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB9				CF3SB10				CF3SB10D				CF3SB11			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1000	U	ug/kg	1000	990	U	ug/kg	990	1000	U	ug/kg	1000	1100	U	ug/kg	1100
4,6-Dinitro-2-methylphenol	1000	U	ug/kg	1000	990	U	ug/kg	990	1000	U	ug/kg	1000	1100	U	ug/kg	1100
N-Nitrosodiphenylamine (1)	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
4-Bromophenyl-phenylether	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Hexachlorobenzene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Pentachlorophenol	1000	U	ug/kg	1000	990	U	ug/kg	990	1000	U	ug/kg	1000	1100	U	ug/kg	1100
Phenanthrene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Anthracene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Carbazole	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Di-n-butylphthalate	760		ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Fluoranthene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Pyrene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Butylbenzylphthalate	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
3,3-Dichlorobenzidine	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Benzo (a) anthracene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Chrysene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
bis(2-Ethylhexyl) phthalate	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	38	J	ug/kg	460
Di-n-octylphthalate	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Benzo (b) fluoranthene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Benzo (k) fluoranthene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Benzo (a) pyrene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Indeno (1,2,3-cd) pyrene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Dibenz (a,h) anthracene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460
Benzo (g,h,i) perylene	430	U	ug/kg	430	410	U	ug/kg	410	430	U	ug/kg	430	460	U	ug/kg	460

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FFD				A1FFG				A1FKN				A1FKW			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB12				CF3SB13				CF3SB25				CF3SB26			
Collect Date:	19-NOV-94				19-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
bis(2-Chloroethyl) ether	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2-Chlorophenol	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
1,3-Dichlorobenzene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
1,4-Dichlorobenzene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
1,2-Dichlorobenzene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2-Methylphenol	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2,2-oxybis(1-Chloropropane)	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
4-Methylphenol	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
N-Nitroso-di-n-propylamine	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Hexachloroethane	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Nitrobenzene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Isophorone	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2-Nitrophenol	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2,4-Dimethylphenol	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
bis(2-Chloroethoxy) methane	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2,4-Dichlorophenol	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
1,2,4-Trichlorobenzene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Naphthalene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
4-Chloroaniline	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Hexachlorobutadiene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
4-Chloro-3-methylphenol	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2-Methylnaphthalene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Hexachlorocyclopentadiene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2,4,6-Trichlorophenol	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2,4,5-Trichlorophenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	970	U	ug/kg	970	1000	U	ug/kg	1000
2-Chloronaphthalene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2-Nitroaniline	1200	U	ug/kg	1200	1200	U	ug/kg	1200	970	U	ug/kg	970	26	J	ug/kg	1000
Dimethylphthalate	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Acenaphthylene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2,6-Dinitrotoluene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
3-Nitroaniline	1200	U	ug/kg	1200	1200	U	ug/kg	1200	970	U	ug/kg	970	82	J	ug/kg	1000
Acenaphthene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2,4-Dinitrophenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	970	U	ug/kg	970	1000	U	ug/kg	1000
4-Nitrophenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	970	U	ug/kg	970	58	J	ug/kg	1000
Dibenzofuran	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
2,4-Dinitrotoluene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Diethylphthalate	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
4-Chlorophenyl-phenylether	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Fluorene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FFD				A1FFG				A1FKN				A1FKW			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB12				CF3SB13				CF3SB25				CF3SB26			
Collect Date:	19-NOV-94				19-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1200	U	ug/kg	1200	1200	U	ug/kg	1200	970	U	ug/kg	970	40	J	ug/kg	1000
4,6-Dinitro-2-methylphenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	970	U	ug/kg	970	1000	U	ug/kg	1000
N-Nitrosodiphenylamine (1)	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
4-Bromophenyl-phenylether	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Hexachlorobenzene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Pentachlorophenol	1200	U	ug/kg	1200	1200	U	ug/kg	1200	970	U	ug/kg	970	1000	U	ug/kg	1000
Phenanthrene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Anthracene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Carbazole	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Di-n-butylphthalate	510	U	ug/kg	510	500	U	ug/kg	500	2700	U	ug/kg	2700	2900	U	ug/kg	2900
Fluoranthene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Pyrene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Butylbenzylphthalate	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
3,3-Dichlorobenzidine	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Benzo (a) anthracene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Chrysene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
bis(2-Ethylhexyl) phthalate	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Di-n-octylphthalate	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Benzo (b) fluoranthene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Benzo (k) fluoranthene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Benzo (a) pyrene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Indeno (1,2,3-cd) pyrene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Dibenz (a,h) anthracene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430
Benzo (g,h,i) perylene	510	U	ug/kg	510	500	U	ug/kg	500	400	U	ug/kg	400	430	U	ug/kg	430

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FLA			A1FLV			A1FM9			A1FMG		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SB27			CF3SB27D			CF3SB28			CF3SB29		
Collect Date:	20-NOV-94			20-NOV-94			20-NOV-94			20-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
bis(2-Chloroethyl) ether	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2-Chlorophenol	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
1,3-Dichlorobenzene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
1,4-Dichlorobenzene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	26 J	ug/kg	400
1,2-Dichlorobenzene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2-Methylphenol	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2,2-oxybis(1-Chloropropane)	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
4-Methylphenol	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
N-Nitroso-di-n-propylamine	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
Hexachloroethane	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
Nitrobenzene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
Isophorone	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2-Nitrophenol	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2,4-Dimethylphenol	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
bis(2-Chloroethoxy) methane	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2,4-Dichlorophenol	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
1,2,4-Trichlorobenzene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
Naphthalene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
4-Chloroaniline	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
Hexachlorobutadiene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
4-Chloro-3-methylphenol	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2-Methylnaphthalene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
Hexachlorocyclopentadiene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2,4,6-Trichlorophenol	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2,4,5-Trichlorophenol	1000 U	ug/kg	1000	980 U	ug/kg	980	1000 U	ug/kg	1000	980 U	ug/kg	980
2-Chloronaphthalene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2-Nitroaniline	1000 U	ug/kg	1000	980 U	ug/kg	980	1000 U	ug/kg	1000	980 U	ug/kg	980
Dimethylphthalate	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
Acenaphthylene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2,6-Dinitrotoluene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
3-Nitroaniline	1000 U	ug/kg	1000	980 U	ug/kg	980	1000 U	ug/kg	1000	980 U	ug/kg	980
Acenaphthene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2,4-Dinitrophenol	1000 U	ug/kg	1000	980 U	ug/kg	980	1000 U	ug/kg	1000	980 U	ug/kg	980
4-Nitrophenol	1000 U	ug/kg	1000	980 U	ug/kg	980	1000 U	ug/kg	1000	980 U	ug/kg	980
Dibenzofuran	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
2,4-Dinitrotoluene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
Diethylphthalate	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
4-Chlorophenyl-phenylether	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400
Fluorene	420 U	ug/kg	420	400 U	ug/kg	400	420 U	ug/kg	420	400 U	ug/kg	400

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FLA				A1FLV				A1FM9				A1FMG			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB27				CF3SB27D				CF3SB28				CF3SB29			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1000	U	ug/kg	1000	980	U	ug/kg	980	1000	U	ug/kg	1000	980	U	ug/kg	980
4,6-Dinitro-2-methylphenol	1000	U	ug/kg	1000	980	U	ug/kg	980	1000	U	ug/kg	1000	980	U	ug/kg	980
N-Nitrosodiphenylamine (1)	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
4-Bromophenyl-phenylether	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Hexachlorobenzene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Pentachlorophenol	1000	U	ug/kg	1000	980	U	ug/kg	980	1000	U	ug/kg	1000	980	U	ug/kg	980
Phenanthrene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Anthracene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Carbazole	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Di-n-butylphthalate	1800	U	ug/kg	1800	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Fluoranthene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Pyrene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Butylbenzylphthalate	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
3,3-Dichlorobenzidine	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Benzo (a) anthracene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Chrysene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
bis(2-Ethylhexyl) phthalate	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	480	U	ug/kg	480
Di-n-octylphthalate	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Benzo (b) fluoranthene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Benzo (k) fluoranthene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Benzo (a) pyrene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Indeno (1,2,3-cd) pyrene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Dibenz (a,h) anthracene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400
Benzo (g,h,i) perylene	420	U	ug/kg	420	400	U	ug/kg	400	420	U	ug/kg	420	400	U	ug/kg	400

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FMK				A1FMN				A1FMQ				A1FNO			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB30				CF3SB31				CF3SB32				CF3SB32D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
bis(2-Chloroethyl) ether	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2-Chlorophenol	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
1,3-Dichlorobenzene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
1,4-Dichlorobenzene	26	J	ug/kg	480	30	J	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
1,2-Dichlorobenzene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2-Methylphenol	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2,2-oxybis(1-Chloropropane)	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
4-Methylphenol	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
N-Nitroso-di-n-propylamine	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Hexachloroethane	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Nitrobenzene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Isophorone	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2-Nitrophenol	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2,4-Dimethylphenol	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
bis(2-Chloroethoxy) methane	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2,4-Dichlorophenol	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
1,2,4-Trichlorobenzene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Naphthalene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
4-Chloroaniline	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Hexachlorobutadiene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
4-Chloro-3-methylphenol	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2-Methylnaphthalene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Hexachlorocyclopentadiene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2,4,6-Trichlorophenol	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2,4,5-Trichlorophenol	1200	U	ug/kg	1200	1100	U	ug/kg	1100	1000	U	ug/kg	1000	1600	U	ug/kg	1600
2-Chloronaphthalene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2-Nitroaniline	1200	U	ug/kg	1200	1100	U	ug/kg	1100	1000	U	ug/kg	1000	1600	U	ug/kg	1600
Dimethylphthalate	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Acenaphthylene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2,6-Dinitrotoluene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
3-Nitroaniline	1200	U	ug/kg	1200	1100	U	ug/kg	1100	1000	U	ug/kg	1000	1600	U	ug/kg	1600
Acenaphthene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2,4-Dinitrophenol	1200	U	ug/kg	1200	1100	U	ug/kg	1100	1000	U	ug/kg	1000	1600	U	ug/kg	1600
4-Nitrophenol	1200	U	ug/kg	1200	1100	U	ug/kg	1100	1000	U	ug/kg	1000	1600	U	ug/kg	1600
Dibenzofuran	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
2,4-Dinitrotoluene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Diethylphthalate	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
4-Chlorophenyl-phenylether	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Fluorene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A1FMK				A1FMN				A1FMQ				A1FNO			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB30				CF3SB31				CF3SB32				CF3SB32D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1200	U	ug/kg	1200	1100	U	ug/kg	1100	1000	U	ug/kg	1000	1600	U	ug/kg	1600
4,6-Dinitro-2-methylphenol	1200	U	ug/kg	1200	1100	U	ug/kg	1100	1000	U	ug/kg	1000	1600	U	ug/kg	1600
N-Nitrosodiphenylamine (1)	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
4-Bromophenyl-phenylether	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Hexachlorobenzene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Pentachlorophenol	1200	U	ug/kg	1200	1100	U	ug/kg	1100	1000	U	ug/kg	1000	1600	U	ug/kg	1600
Phenanthrene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Anthracene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Carbazole	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Di-n-butylphthalate	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Fluoranthene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Pyrene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Butylbenzylphthalate	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
3,3-Dichlorobenzidine	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Benzo (a) anthracene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Chrysene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
bis(2-Ethylhexyl) phthalate	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Di-n-octylphthalate	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Benzo (b) fluoranthene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Benzo (k) fluoranthene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Benzo (a) pyrene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Indeno (1,2,3-cd) pyrene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Dibenz (a,h) anthracene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680
Benzo (g,h,i) perylene	480	U	ug/kg	480	460	U	ug/kg	460	420	U	ug/kg	420	680	U	ug/kg	680

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- PESTICIDES AND PCBs

	Lab Sample Number:	A1FN6				A1DVT				A1DVX				A1DW1			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3SB1				CF3SB2				CF3SB3				CF3SB4			
	Collect Date:	20-NOV-94				18-NOV-94				18-NOV-94				18-NOV-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																	
alpha-BHC		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
beta-BHC		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
delta-BHC		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
gamma-BHC (Lindane)		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
Heptachlor		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
Aldrin		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
Heptachlor epoxide		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
Endosulfan I		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
Dieldrin		4	U	ug/kg	4	4	UJ	ug/kg	4	4.3	UJ	ug/kg	4.3	4	UJ	ug/kg	4
4,4-DDE		4	U	ug/kg	4	4	UJ	ug/kg	4	4.3	UJ	ug/kg	4.3	4	UJ	ug/kg	4
Endrin		4	U	ug/kg	4	4	UJ	ug/kg	4	4.3	UJ	ug/kg	4.3	4	UJ	ug/kg	4
Endosulfan II		4	U	ug/kg	4	.41	J	ug/kg	4	4.3	UJ	ug/kg	4.3	4	UJ	ug/kg	4
4,4-DDD		4	U	ug/kg	4	4	UJ	ug/kg	4	4.3	UJ	ug/kg	4.3	4	UJ	ug/kg	4
Endosulfan sulfate		4	U	ug/kg	4	4	UJ	ug/kg	4	4.3	UJ	ug/kg	4.3	4	UJ	ug/kg	4
4,4-DDT		4	U	ug/kg	4	4	UJ	ug/kg	4	4.3	UJ	ug/kg	4.3	4	UJ	ug/kg	4
Methoxychlor		21	U	ug/kg	21	21	UJ	ug/kg	21	22	UJ	ug/kg	22	4	UJ	ug/kg	4
Endrin ketone		4	U	ug/kg	4	4	UJ	ug/kg	4	4.3	UJ	ug/kg	4.3	4	UJ	ug/kg	4
Endrin aldehyde		4	U	ug/kg	4	4	UJ	ug/kg	4	4.3	UJ	ug/kg	4.3	4	UJ	ug/kg	4
alpha-Chlordane		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
gamma-Chlordane		2.1	U	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.1	UJ	ug/kg	2.1
Toxaphene		210	U	ug/kg	210	210	UJ	ug/kg	210	220	UJ	ug/kg	220	210	UJ	ug/kg	210
Aroclor-1016		40	U	ug/kg	40	40	UJ	ug/kg	40	43	UJ	ug/kg	43	40	UJ	ug/kg	40
Aroclor-1221		82	U	ug/kg	82	82	UJ	ug/kg	82	88	UJ	ug/kg	88	82	UJ	ug/kg	82
Aroclor-1232		40	U	ug/kg	40	40	UJ	ug/kg	40	43	UJ	ug/kg	43	40	UJ	ug/kg	40
Aroclor-1242		40	U	ug/kg	40	40	UJ	ug/kg	40	43	UJ	ug/kg	43	40	UJ	ug/kg	40
Aroclor-1248		40	U	ug/kg	40	40	UJ	ug/kg	40	43	UJ	ug/kg	43	40	UJ	ug/kg	40
Aroclor-1254		40	U	ug/kg	40	40	UJ	ug/kg	40	43	UJ	ug/kg	43	40	UJ	ug/kg	40
Aroclor-1260		40	U	ug/kg	40	40	UJ	ug/kg	40	43	UJ	ug/kg	43	40	UJ	ug/kg	40

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1DW3				A1DW5				A1FDT				A1FDTRE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB5				CF3SB6				CF3SB7				CF3SB7RE			
Collect Date:	18-NOV-94				18-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2
beta-BHC	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2
delta-BHC	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2
gamma-BHC (Lindane)	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2
Heptachlor	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2
Aldrin	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	R	ug/kg	2.2
Heptachlor epoxide	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2
Endosulfan I	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2
Dieldrin	4	UJ	ug/kg	4	4	UJ	ug/kg	4	5.7	UJ	ug/kg	5.7	4.2	UJ	ug/kg	4.2
4,4-DDE	4	UJ	ug/kg	4	4	UJ	ug/kg	4	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2
Endrin	4	UJ	ug/kg	4	4	UJ	ug/kg	4	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2
Endosulfan II	4	UJ	ug/kg	4	4	UJ	ug/kg	4	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2
4,4-DDD	4	UJ	ug/kg	4	4	UJ	ug/kg	4	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2
Endosulfan sulfate	4	UJ	ug/kg	4	4	UJ	ug/kg	4	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2
4,4-DDT	4	UJ	ug/kg	4	4	UJ	ug/kg	4	30	UJ	ug/kg	30	4.2	UJ	ug/kg	4.2
Methoxychlor	4	UJ	ug/kg	4	4	UJ	ug/kg	4	1.1	J	ug/kg	22	22	UJ	ug/kg	22
Endrin ketone	4	UJ	ug/kg	4	4	UJ	ug/kg	4	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2
Endrin aldehyde	4	UJ	ug/kg	4	4	UJ	ug/kg	4	4.2	UJ	ug/kg	4.2	4.2	UJ	ug/kg	4.2
alpha-Chlordane	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2
gamma-Chlordane	2.1	UJ	ug/kg	2.1	2.1	UJ	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	UJ	ug/kg	2.2
Toxaphene	210	UJ	ug/kg	210	210	UJ	ug/kg	210	220	UJ	ug/kg	220	220	UJ	ug/kg	220
Aroclor-1016	40	UJ	ug/kg	40	40	UJ	ug/kg	40	42	UJ	ug/kg	42	42	UJ	ug/kg	42
Aroclor-1221	82	UJ	ug/kg	82	82	UJ	ug/kg	82	86	UJ	ug/kg	86	86	UJ	ug/kg	86
Aroclor-1232	40	UJ	ug/kg	40	40	UJ	ug/kg	40	42	UJ	ug/kg	42	42	UJ	ug/kg	42
Aroclor-1242	40	UJ	ug/kg	40	40	UJ	ug/kg	40	42	UJ	ug/kg	42	42	UJ	ug/kg	42
Aroclor-1248	40	UJ	ug/kg	40	40	UJ	ug/kg	40	42	UJ	ug/kg	42	42	UJ	ug/kg	42
Aroclor-1254	40	UJ	ug/kg	40	40	UJ	ug/kg	40	42	UJ	ug/kg	42	42	UJ	ug/kg	42
Aroclor-1260	40	UJ	ug/kg	40	40	UJ	ug/kg	40	42	UJ	ug/kg	42	42	UJ	ug/kg	42

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- PESTICIDES AND PCBs

	A1FE2					A1FE2RE					A1FE9					A1FE9RE				
Lab Sample Number:																				
Site	CECIL8					CECIL8					CECIL8					CECIL8				
Locator	CF3SB8					CF3SB8RE					CF3SB9					CF3SB9RE				
Collect Date:	19-NOV-94					19-NOV-94					19-NOV-94					19-NOV-94				
	VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL	
CLP PESTICIDES/PCBS 90-SOW																				
alpha-BHC	2.3	UJ	ug/kg	2.3		2.3	UJ	ug/kg	2.3		2.2	UJ	ug/kg	2.2		2.2	U	ug/kg	2.2	
beta-BHC	2.3	UJ	ug/kg	2.3		2.3	UJ	ug/kg	2.3		2.2	UJ	ug/kg	2.2		2.2	U	ug/kg	2.2	
delta-BHC	2.3	UJ	ug/kg	2.3		2.3	UJ	ug/kg	2.3		2.2	UJ	ug/kg	2.2		2.2	U	ug/kg	2.2	
gamma-BHC (Lindane)	2.3	UJ	ug/kg	2.3		2.3	UJ	ug/kg	2.3		2.2	UJ	ug/kg	2.2		2.2	U	ug/kg	2.2	
Heptachlor	2.3	UJ	ug/kg	2.3		2.3	UJ	ug/kg	2.3		2.2	UJ	ug/kg	2.2		2.2	U	ug/kg	2.2	
Aldrin	2.3	UJ	ug/kg	2.3		2.3	UJ	ug/kg	2.3		2.2	UJ	ug/kg	2.2		2.2	R	ug/kg	2.2	
Heptachlor epoxide	2.3	UJ	ug/kg	2.3		2.3	UJ	ug/kg	2.3		2.2	UJ	ug/kg	2.2		2.2	U	ug/kg	2.2	
Endosulfan I	2.3	UJ	ug/kg	2.3		2.3	UJ	ug/kg	2.3		2.2	UJ	ug/kg	2.2		2.2	U	ug/kg	2.2	
Dieldrin	4.4	UJ	ug/kg	4.4		4.4	UJ	ug/kg	4.4		4.3	UJ	ug/kg	4.3		4.3	U	ug/kg	4.3	
4,4-DDE	4.4	UJ	ug/kg	4.4		4.4	UJ	ug/kg	4.4		4.3	UJ	ug/kg	4.3		4.3	U	ug/kg	4.3	
Endrin	4.4	UJ	ug/kg	4.4		4.4	UJ	ug/kg	4.4		4.3	UJ	ug/kg	4.3		4.3	U	ug/kg	4.3	
Endosulfan II	4.4	UJ	ug/kg	4.4		4.4	UJ	ug/kg	4.4		4.3	UJ	ug/kg	4.3		4.3	U	ug/kg	4.3	
4,4-DDD	4.4	UJ	ug/kg	4.4		4.4	UJ	ug/kg	4.4		4.3	UJ	ug/kg	4.3		4.3	U	ug/kg	4.3	
Endosulfan sulfate	4.4	UJ	ug/kg	4.4		4.4	UJ	ug/kg	4.4		4.3	UJ	ug/kg	4.3		4.3	U	ug/kg	4.3	
4,4-DDT	9.3	UJ	ug/kg	9.3		4.4	UJ	ug/kg	4.4		12	UJ	ug/kg	12		4.3	U	ug/kg	4.3	
Methoxychlor	23	UJ	ug/kg	23		23	UJ	ug/kg	23		22	UJ	ug/kg	22		22	U	ug/kg	22	
Endrin ketone	4.4	UJ	ug/kg	4.4		4.4	UJ	ug/kg	4.4		4.3	UJ	ug/kg	4.3		4.3	U	ug/kg	4.3	
Endrin aldehyde	4.4	UJ	ug/kg	4.4		4.4	UJ	ug/kg	4.4		4.3	UJ	ug/kg	4.3		4.3	U	ug/kg	4.3	
alpha-Chlordane	2.3	UJ	ug/kg	2.3		.21	J	ug/kg	2		2.2	UJ	ug/kg	2.2		2.2	U	ug/kg	2.2	
gamma-Chlordane	2.3	UJ	ug/kg	2.3		2.3	UJ	ug/kg	2.3		2.2	UJ	ug/kg	2.2		2.2	U	ug/kg	2.2	
Toxaphene	230	UJ	ug/kg	230		230	UJ	ug/kg	230		220	UJ	ug/kg	220		220	U	ug/kg	220	
Aroclor-1016	44	UJ	ug/kg	44		44	UJ	ug/kg	44		43	UJ	ug/kg	43		43	U	ug/kg	43	
Aroclor-1221	89	UJ	ug/kg	89		90	UJ	ug/kg	90		88	UJ	ug/kg	88		88	U	ug/kg	88	
Aroclor-1232	44	UJ	ug/kg	44		44	UJ	ug/kg	44		43	UJ	ug/kg	43		43	U	ug/kg	43	
Aroclor-1242	44	UJ	ug/kg	44		44	UJ	ug/kg	44		43	UJ	ug/kg	43		43	U	ug/kg	43	
Aroclor-1248	44	UJ	ug/kg	44		44	UJ	ug/kg	44		43	UJ	ug/kg	43		43	U	ug/kg	43	
Aroclor-1254	44	UJ	ug/kg	44		44	UJ	ug/kg	44		43	UJ	ug/kg	43		43	U	ug/kg	43	
Aroclor-1260	44	UJ	ug/kg	44		44	UJ	ug/kg	44		43	UJ	ug/kg	43		43	U	ug/kg	43	

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- PESTICIDES AND PCBs

	A1FEX				A1FEXRE				A1FF3				A1FF3RE			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB10				CF3SB10RE				CF3SB10D				CF3SB10DRE			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.1	U	ug/kg	2.1	2.1	U	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	U	ug/kg	2.2
beta-BHC	2.1	U	ug/kg	2.1	2.1	U	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	U	ug/kg	2.2
delta-BHC	2.1	U	ug/kg	2.1	2.1	U	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	U	ug/kg	2.2
gamma-BHC (Lindane)	2.1	U	ug/kg	2.1	2.1	U	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	U	ug/kg	2.2
Heptachlor	2.1	U	ug/kg	2.1	2.1	U	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	U	ug/kg	2.2
Aldrin	.3	R	ug/kg	2	2.1	UJ	ug/kg	2.1	.24	R	ug/kg	2	2.2	UJ	ug/kg	2.2
Heptachlor epoxide	2.1	U	ug/kg	2.1	2.1	U	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	U	ug/kg	2.2
Endosulfan I	2.1	U	ug/kg	2.1	2.1	U	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	U	ug/kg	2.2
Dieldrin	4.1	U	ug/kg	4.1	4.1	U	ug/kg	4.1	4.3	UJ	ug/kg	4.3	4.4	U	ug/kg	4.4
4,4-DDE	4.1	U	ug/kg	4.1	4.1	U	ug/kg	4.1	4.3	UJ	ug/kg	4.3	4.4	U	ug/kg	4.4
Endrin	1	J	ug/kg	4	4.1	U	ug/kg	4.1	4.3	UJ	ug/kg	4.3	4.4	U	ug/kg	4.4
Endosulfan II	4.1	U	ug/kg	4.1	4.1	U	ug/kg	4.1	4.3	UJ	ug/kg	4.3	4.4	U	ug/kg	4.4
4,4-DDD	4.1	U	ug/kg	4.1	4.1	U	ug/kg	4.1	4.3	UJ	ug/kg	4.3	4.4	U	ug/kg	4.4
Endosulfan sulfate	4.1	U	ug/kg	4.1	4.1	U	ug/kg	4.1	4.3	UJ	ug/kg	4.3	4.4	U	ug/kg	4.4
4,4-DDT	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4.3	UJ	ug/kg	4.3	7.6	U	ug/kg	7.6
Methoxychlor	21	U	ug/kg	21	21	U	ug/kg	21	22	UJ	ug/kg	22	22	U	ug/kg	22
Endrin ketone	4.1	U	ug/kg	4.1	4.1	U	ug/kg	4.1	4.3	UJ	ug/kg	4.3	4.4	U	ug/kg	4.4
Endrin aldehyde	4.1	U	ug/kg	4.1	4.1	U	ug/kg	4.1	4.3	UJ	ug/kg	4.3	4.4	U	ug/kg	4.4
alpha-Chlordane	2.1	U	ug/kg	2.1	2.1	U	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	U	ug/kg	2.2
gamma-Chlordane	2.1	U	ug/kg	2.1	2.1	U	ug/kg	2.1	2.2	UJ	ug/kg	2.2	2.2	U	ug/kg	2.2
Toxaphene	210	U	ug/kg	210	210	U	ug/kg	210	220	UJ	ug/kg	220	220	U	ug/kg	220
Aroclor-1016	41	U	ug/kg	41	41	U	ug/kg	41	43	UJ	ug/kg	43	44	U	ug/kg	44
Aroclor-1221	83	U	ug/kg	83	83	U	ug/kg	83	88	UJ	ug/kg	88	88	U	ug/kg	88
Aroclor-1232	41	U	ug/kg	41	41	U	ug/kg	41	43	UJ	ug/kg	43	44	U	ug/kg	44
Aroclor-1242	41	U	ug/kg	41	41	U	ug/kg	41	43	UJ	ug/kg	43	44	U	ug/kg	44
Aroclor-1248	41	U	ug/kg	41	41	U	ug/kg	41	43	UJ	ug/kg	43	44	U	ug/kg	44
Aroclor-1254	41	U	ug/kg	41	41	U	ug/kg	41	43	UJ	ug/kg	43	44	U	ug/kg	44
Aroclor-1260	41	U	ug/kg	41	41	U	ug/kg	41	43	UJ	ug/kg	43	44	U	ug/kg	44

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FF8				A1FF8RE				A1FFD				A1FFDRE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB11				CF3SB11RE				CF3SB12				CF3SB12RE			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.4	U	ug/kg	2.4	2.4	U	ug/kg	2.4	2.6	U	ug/kg	2.6	39		ug/kg	3
beta-BHC	2.4	U	ug/kg	2.4	2.4	U	ug/kg	2.4	2.6	U	ug/kg	2.6	2.7	U	ug/kg	2.7
delta-BHC	2.4	U	ug/kg	2.4	2.4	U	ug/kg	2.4	2.6	U	ug/kg	2.6	1.2	J	ug/kg	3
gamma-BHC (Lindane)	2.4	U	ug/kg	2.4	2.4	U	ug/kg	2.4	2.6	U	ug/kg	2.6	24		ug/kg	3
Heptachlor	2.4	U	ug/kg	2.4	2.4	U	ug/kg	2.4	2.6	U	ug/kg	2.6	2.7	U	ug/kg	2.7
Aldrin	.2	R	ug/kg	2	2.4	U	ug/kg	2.4	.14	R	ug/kg	3	2.7	UJ	ug/kg	2.7
Heptachlor epoxide	2.4	U	ug/kg	2.4	2.4	U	ug/kg	2.4	2.6	U	ug/kg	2.6	2.7	U	ug/kg	2.7
Endosulfan I	2.4	U	ug/kg	2.4	2.4	U	ug/kg	2.4	2.6	U	ug/kg	2.6	2.7	U	ug/kg	2.7
Dieldrin	4.6	U	ug/kg	4.6	4.6	U	ug/kg	4.6	5.1	U	ug/kg	5.1	5.2	U	ug/kg	5.2
4,4-DDE	.3	U	ug/kg	.3	1.4	J	ug/kg	4	.78	J	ug/kg	5	5.2	U	ug/kg	5.2
Endrin	4.6	U	ug/kg	4.6	4.6	U	ug/kg	4.6	5.1	U	ug/kg	5.1	5.2	U	ug/kg	5.2
Endosulfan II	4.6	U	ug/kg	4.6	4.6	U	ug/kg	4.6	.13	J	ug/kg	5	5.2	U	ug/kg	5.2
4,4-DDD	4.6	U	ug/kg	4.6	4.6	U	ug/kg	4.6	5.1	U	ug/kg	5.1	5.2	U	ug/kg	5.2
Endosulfan sulfate	4.6	U	ug/kg	4.6	4.6	U	ug/kg	4.6	5.1	U	ug/kg	5.1	5.2	U	ug/kg	5.2
4,4-DDT	4.6	U	ug/kg	4.6	58	J	ug/kg	4	5.1	U	ug/kg	5.1	7.5	U	ug/kg	7.5
Methoxychlor	24	U	ug/kg	24	24	U	ug/kg	24	26	U	ug/kg	26	27	U	ug/kg	27
Endrin ketone	4.6	U	ug/kg	4.6	4.6	U	ug/kg	4.6	5.1	U	ug/kg	5.1	5.2	U	ug/kg	5.2
Endrin aldehyde	4.6	U	ug/kg	4.6	4.6	U	ug/kg	4.6	5.1	U	ug/kg	5.1	5.2	U	ug/kg	5.2
alpha-Chlordane	2.4	U	ug/kg	2.4	2.4	U	ug/kg	2.4	2.6	U	ug/kg	2.6	2.7	U	ug/kg	2.7
gamma-Chlordane	2.4	U	ug/kg	2.4	2.4	U	ug/kg	2.4	2.6	U	ug/kg	2.6	2.7	U	ug/kg	2.7
Toxaphene	240	U	ug/kg	240	240	U	ug/kg	240	260	U	ug/kg	260	270	U	ug/kg	270
Aroclor-1016	46	U	ug/kg	46	46	U	ug/kg	46	51	U	ug/kg	51	52	U	ug/kg	52
Aroclor-1221	93	U	ug/kg	93	93	U	ug/kg	93	100	U	ug/kg	100	100	U	ug/kg	100
Aroclor-1232	46	U	ug/kg	46	46	U	ug/kg	46	51	U	ug/kg	51	52	U	ug/kg	52
Aroclor-1242	46	U	ug/kg	46	46	U	ug/kg	46	51	U	ug/kg	51	52	U	ug/kg	52
Aroclor-1248	46	U	ug/kg	46	46	U	ug/kg	46	51	U	ug/kg	51	52	U	ug/kg	52
Aroclor-1254	46	U	ug/kg	46	46	U	ug/kg	46	51	U	ug/kg	51	52	U	ug/kg	52
Aroclor-1260	46	U	ug/kg	46	46	U	ug/kg	46	51	U	ug/kg	51	52	U	ug/kg	52

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FFG			A1FFGRE			A1FKN			A1FKW		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SB13			CF3SB13RE			CF3SB25			CF3SB26		
Collect Date:	19-NOV-94			19-NOV-94			20-NOV-94			20-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	2.6 U	ug/kg	2.6	2.6 U	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
beta-BHC	2.6 U	ug/kg	2.6	2.6 U	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
delta-BHC	2.6 U	ug/kg	2.6	2.6 U	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
gamma-BHC (Lindane)	2.6 U	ug/kg	2.6	2.6 U	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
Heptachlor	2.6 U	ug/kg	2.6	2.6 U	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
Aldrin	.26 R	ug/kg	2	2.6 UJ	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
Heptachlor epoxide	2.6 U	ug/kg	2.6	2.6 U	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
Endosulfan I	2.6 U	ug/kg	2.6	2.6 U	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
Dieldrin	5 U	ug/kg	5	5 U	ug/kg	5	4 U	ug/kg	4	4.3 U	ug/kg	4.3
4,4-DDE	5 U	ug/kg	5	5 U	ug/kg	5	4 U	ug/kg	4	4.3 U	ug/kg	4.3
Endrin	5 U	ug/kg	5	5 U	ug/kg	5	4 U	ug/kg	4	4.3 U	ug/kg	4.3
Endosulfan II	.3 U	ug/kg	.3	5 U	ug/kg	5	.2 U	ug/kg	.2	4.3 U	ug/kg	4.3
4,4-DDD	5 U	ug/kg	5	5 U	ug/kg	5	4 U	ug/kg	4	4.3 U	ug/kg	4.3
Endosulfan sulfate	5 U	ug/kg	5	5 U	ug/kg	5	4 U	ug/kg	4	4.3 U	ug/kg	4.3
4,4-DDT	5 U	ug/kg	5	8 U	ug/kg	8	4 U	ug/kg	4	4.3 U	ug/kg	4.3
Methoxychlor	26 U	ug/kg	26	26 U	ug/kg	26	21 U	ug/kg	21	22 U	ug/kg	22
Endrin ketone	5 U	ug/kg	5	5 U	ug/kg	5	.4 U	ug/kg	.4	4.3 U	ug/kg	4.3
Endrin aldehyde	5 U	ug/kg	5	5 U	ug/kg	5	4 U	ug/kg	4	4.3 U	ug/kg	4.3
alpha-Chlordane	2.6 U	ug/kg	2.6	2.6 U	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
gamma-Chlordane	2.6 U	ug/kg	2.6	2.6 U	ug/kg	2.6	2.1 U	ug/kg	2.1	2.2 U	ug/kg	2.2
Toxaphene	260 U	ug/kg	260	260 U	ug/kg	260	210 U	ug/kg	210	220 U	ug/kg	220
Aroclor-1016	50 U	ug/kg	50	50 U	ug/kg	50	40 U	ug/kg	40	43 U	ug/kg	43
Aroclor-1221	100 U	ug/kg	100	100 U	ug/kg	100	82 U	ug/kg	82	88 U	ug/kg	88
Aroclor-1232	50 U	ug/kg	50	50 U	ug/kg	50	40 U	ug/kg	40	43 U	ug/kg	43
Aroclor-1242	50 U	ug/kg	50	50 U	ug/kg	50	40 U	ug/kg	40	43 U	ug/kg	43
Aroclor-1248	50 U	ug/kg	50	50 U	ug/kg	50	40 U	ug/kg	40	43 U	ug/kg	43
Aroclor-1254	50 U	ug/kg	50	50 U	ug/kg	50	40 U	ug/kg	40	43 U	ug/kg	43
Aroclor-1260	50 U	ug/kg	50	50 U	ug/kg	50	40 U	ug/kg	40	43 U	ug/kg	43

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A1FLA				A1FLV				A1FM9				A1FMG			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB27				CF3SB27D				CF3SB28				CF3SB29			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1
beta-BHC	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1
delta-BHC	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1
gamma-BHC (Lindane)	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1
Heptachlor	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1
Aldrin	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1
Heptachlor epoxide	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1
Endosulfan I	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1
Dieldrin	4.2	U	ug/kg	4.2	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4	U	ug/kg	4
4,4-DDE	4.2	U	ug/kg	4.2	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4	U	ug/kg	4
Endrin	4.2	U	ug/kg	4.2	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4	U	ug/kg	4
Endosulfan II	4.2	U	ug/kg	4.2	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4	U	ug/kg	4
4,4-DDD	4.2	U	ug/kg	4.2	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4	U	ug/kg	4
Endosulfan sulfate	4.2	U	ug/kg	4.2	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4	U	ug/kg	4
4,4-DDT	4.2	U	ug/kg	4.2	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4	U	ug/kg	4
Methoxychlor	22	U	ug/kg	22	21	U	ug/kg	21	22	U	ug/kg	22	21	U	ug/kg	21
Endrin ketone	4.2	U	ug/kg	4.2	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4	U	ug/kg	4
Endrin aldehyde	4.2	U	ug/kg	4.2	4.1	U	ug/kg	4.1	4.2	U	ug/kg	4.2	4	U	ug/kg	4
alpha-Chlordane	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	.41	J	ug/kg	2	2.1	U	ug/kg	2.1
gamma-Chlordane	2.2	U	ug/kg	2.2	2.1	U	ug/kg	2.1	.47	J	ug/kg	2	2.1	U	ug/kg	2.1
Toxaphene	220	U	ug/kg	220	210	U	ug/kg	210	220	U	ug/kg	220	210	U	ug/kg	210
Aroclor-1016	42	U	ug/kg	42	41	U	ug/kg	41	42	U	ug/kg	42	40	U	ug/kg	40
Aroclor-1221	85	U	ug/kg	85	83	U	ug/kg	83	86	U	ug/kg	86	81	U	ug/kg	81
Aroclor-1232	42	U	ug/kg	42	41	U	ug/kg	41	42	U	ug/kg	42	40	U	ug/kg	40
Aroclor-1242	42	U	ug/kg	42	41	U	ug/kg	41	42	U	ug/kg	42	40	U	ug/kg	40
Aroclor-1248	42	U	ug/kg	42	41	U	ug/kg	41	42	U	ug/kg	42	40	U	ug/kg	40
Aroclor-1254	42	U	ug/kg	42	41	U	ug/kg	41	42	U	ug/kg	42	40	U	ug/kg	40
Aroclor-1260	42	U	ug/kg	42	41	U	ug/kg	41	42	U	ug/kg	42	40	U	ug/kg	40

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- PESTICIDES AND PCBs

	A1FMK				A1FMN				A1FMQ				A1FNO			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB30				CF3SB31				CF3SB32				CF3SB32D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
beta-BHC	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
delta-BHC	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
gamma-BHC (Lindane)	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
Heptachlor	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
Aldrin	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
Heptachlor epoxide	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
Endosulfan I	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
Dieldrin	4.8	U	ug/kg	4.8	4.6	U	ug/kg	4.6	4.2	U	ug/kg	4.2	6.9	U	ug/kg	6.9
4,4-DDE	4.8	U	ug/kg	4.8	4.6	U	ug/kg	4.6	4.2	U	ug/kg	4.2	6.9	U	ug/kg	6.9
Endrin	4.8	U	ug/kg	4.8	4.6	U	ug/kg	4.6	4.2	U	ug/kg	4.2	6.9	U	ug/kg	6.9
Endosulfan II	4.8	U	ug/kg	4.8	4.6	U	ug/kg	4.6	4.2	U	ug/kg	4.2	6.9	U	ug/kg	6.9
4,4-DDD	4.8	U	ug/kg	4.8	4.6	U	ug/kg	4.6	4.2	U	ug/kg	4.2	6.9	U	ug/kg	6.9
Endosulfan sulfate	4.8	U	ug/kg	4.8	4.6	U	ug/kg	4.6	4.2	U	ug/kg	4.2	6.9	U	ug/kg	6.9
4,4-DDT	4.8	U	ug/kg	4.8	4.6	U	ug/kg	4.6	4.2	U	ug/kg	4.2	6.9	U	ug/kg	6.9
Methoxychlor	25	U	ug/kg	25	24	U	ug/kg	24	22	U	ug/kg	22	35	U	ug/kg	35
Endrin ketone	4.8	U	ug/kg	4.8	4.6	U	ug/kg	4.6	4.2	U	ug/kg	4.2	6.9	U	ug/kg	6.9
Endrin aldehyde	4.8	U	ug/kg	4.8	4.6	U	ug/kg	4.6	4.2	U	ug/kg	4.2	6.9	U	ug/kg	6.9
alpha-Chlordane	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
gamma-Chlordane	2.5	U	ug/kg	2.5	2.4	U	ug/kg	2.4	2.2	U	ug/kg	2.2	3.5	U	ug/kg	3.5
Toxaphene	250	U	ug/kg	250	240	U	ug/kg	240	220	U	ug/kg	220	350	U	ug/kg	350
Aroclor-1016	48	U	ug/kg	48	46	U	ug/kg	46	42	U	ug/kg	42	69	U	ug/kg	69
Aroclor-1221	97	U	ug/kg	97	94	U	ug/kg	94	86	U	ug/kg	86	140	U	ug/kg	140
Aroclor-1232	48	U	ug/kg	48	46	U	ug/kg	46	42	U	ug/kg	42	69	U	ug/kg	69
Aroclor-1242	48	U	ug/kg	48	46	U	ug/kg	46	42	U	ug/kg	42	69	U	ug/kg	69
Aroclor-1248	48	U	ug/kg	48	46	U	ug/kg	46	42	U	ug/kg	42	69	U	ug/kg	69
Aroclor-1254	48	U	ug/kg	48	46	U	ug/kg	46	42	U	ug/kg	42	69	U	ug/kg	69
Aroclor-1260	48	U	ug/kg	48	46	U	ug/kg	46	42	U	ug/kg	42	69	U	ug/kg	69

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FN6				A1DVT				A1DVX				A1DW1			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB1				CF3SB2				CF3SB3				CF3SB4			
Collect Date:	20-NOV-94				18-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	1740		mg/kg	40	1480		mg/kg	40	1950		mg/kg	40	1450		mg/kg	40
Antimony	.49	U	mg/kg	12	.48	UJ	mg/kg	12	.53	UJ	mg/kg	12	.49	UJ	mg/kg	12
Arsenic	.73	U	mg/kg	20	.72	UJ	mg/kg	20	.8	UJ	mg/kg	20	.74	UJ	mg/kg	20
Barium	1.8	U	mg/kg	40	1.9		mg/kg	40	2.6		mg/kg	40	2.3		mg/kg	40
Beryllium	.24	U	mg/kg	1	.24	U	mg/kg	1	.27	U	mg/kg	1	.25	U	mg/kg	1
Cadmium	.24	U	mg/kg	1	.24	U	mg/kg	1	.27	U	mg/kg	1	.25	U	mg/kg	1
Calcium	60.6	U	mg/kg	1000	74	J	mg/kg	1000	105	J	mg/kg	1000	312	J	mg/kg	1000
Chromium	1.4	U	mg/kg	2	1.2	U	mg/kg	2	1.5	U	mg/kg	2	2.3	U	mg/kg	2
Cobalt	.49	U	mg/kg	10	.48	U	mg/kg	10	.53	U	mg/kg	10	.49	U	mg/kg	10
Copper	.49	U	mg/kg	5	.5		mg/kg	5	3		mg/kg	5	.49	U	mg/kg	5
Iron	288		mg/kg	20	283		mg/kg	20	327		mg/kg	20	282		mg/kg	20
Lead	1.5		mg/kg	.6	1.6	U	mg/kg	.6	1.8	U	mg/kg	.6	1.3	U	mg/kg	.6
Magnesium	37.5		mg/kg	1000	46		mg/kg	1000	55.8		mg/kg	1000	48.5		mg/kg	1000
Manganese	3		mg/kg	3	3.1		mg/kg	3	4		mg/kg	3	3.9		mg/kg	3
Mercury	.13	UJ	mg/kg	.1	.12	U	mg/kg	.1	.14	U	mg/kg	.1	.13	U	mg/kg	.1
Nickel	.68	U	mg/kg	8	.69	U	mg/kg	8	2.9	U	mg/kg	8	1.4	U	mg/kg	8
Potassium	18.5	U	mg/kg	1000	18.8		mg/kg	1000	23.5	J	mg/kg	1000	25.8		mg/kg	1000
Selenium	.98	U	mg/kg	1	.97	U	mg/kg	1	1.1	U	mg/kg	1	.99	U	mg/kg	1
Silver	.24	U	mg/kg	2	.24	U	mg/kg	2	.27	U	mg/kg	2	.25	U	mg/kg	2
Sodium	104	U	mg/kg	1000	116		mg/kg	1000	110		mg/kg	1000	143		mg/kg	1000
Thallium	1.5	U	mg/kg	2	1.4	U	mg/kg	2	1.6	U	mg/kg	2	1.5	U	mg/kg	2
Vanadium	1.9		mg/kg	10	1.4		mg/kg	10	1.7		mg/kg	10	1.4		mg/kg	10
Zinc	3.5	U	mg/kg	4	2.4	U	mg/kg	4	3.8	U	mg/kg	4	2.5	U	mg/kg	4
Cyanide	.61	U	mg/kg	.5	.54	U	mg/kg	.5	.62	U	mg/kg	.5	.58	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1DW3				A1DW5				A1FDT				A1FE2			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB5				CF3SB6				CF3SB7				CF3SB8			
Collect Date:	18-NOV-94				18-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	1390		mg/kg	40	1700		mg/kg	40	523	J	mg/kg	40	783	J	mg/kg	40
Antimony	.48	UJ	mg/kg	12	.48	UJ	mg/kg	12	.51	UJ	mg/kg	12	.52	UJ	mg/kg	12
Arsenic	.72	UJ	mg/kg	20	.72	UJ	mg/kg	20	.76	UJ	mg/kg	20	.78	UJ	mg/kg	20
Barium	2.1		mg/kg	40	2.3		mg/kg	40	1.2	J	mg/kg	40	1.7	J	mg/kg	40
Beryllium	.24	U	mg/kg	1	.24	U	mg/kg	1	.25	UJ	mg/kg	1	.26	UJ	mg/kg	1
Cadmium	.24	U	mg/kg	1	.24	U	mg/kg	1	.25	UJ	mg/kg	1	.26	UJ	mg/kg	1
Calcium	464	J	mg/kg	1000	1100	J	mg/kg	1000	284	J	mg/kg	1000	146	J	mg/kg	1000
Chromium	1.3	U	mg/kg	2	1.2	U	mg/kg	2	.76	UJ	mg/kg	2	.96	UJ	mg/kg	2
Cobalt	.48	U	mg/kg	10	.48	U	mg/kg	10	.51	UJ	mg/kg	10	.52	UJ	mg/kg	10
Copper	.48	U	mg/kg	5	.48	U	mg/kg	5	.65	J	mg/kg	5	.52	UJ	mg/kg	5
Iron	264		mg/kg	20	346		mg/kg	20	75.6	J	mg/kg	20	177	J	mg/kg	20
Lead	1.7	U	mg/kg	.6	3.1		mg/kg	.6	1.1	UJ	mg/kg	.6	1.2	UJ	mg/kg	.6
Magnesium	44.8		mg/kg	1000	47.1		mg/kg	1000	16.9	J	mg/kg	1000	25.8	J	mg/kg	1000
Manganese	3.7		mg/kg	3	3.6		mg/kg	3	1.6	UJ	mg/kg	3	1.9	UJ	mg/kg	3
Mercury	.12	U	mg/kg	.1	.12	U	mg/kg	.1	.12	UJ C	mg/kg	.1	.13	UJ	mg/kg	.1
Nickel	.48	U	mg/kg	8	.67	U	mg/kg	8	1	UJ	mg/kg	8	.74	J	mg/kg	8
Potassium	24.4		mg/kg	1000	22		mg/kg	1000	23.9	J	mg/kg	1000	23.1	J	mg/kg	1000
Selenium	.97	U	mg/kg	1	.96	U	mg/kg	1	1	UJ	mg/kg	1	1	UJ	mg/kg	1
Silver	.24	U	mg/kg	2	.24	U	mg/kg	2	.25	UJ	mg/kg	2	.26	UJ	mg/kg	2
Sodium	137		mg/kg	1000	120		mg/kg	1000	144	J	mg/kg	1000	160	J	mg/kg	1000
Thallium	1.4	U	mg/kg	2	1.4	U	mg/kg	2	1.5	UJ	mg/kg	2	1.6	UJ	mg/kg	2
Vanadium	1.3		mg/kg	10	1.6		mg/kg	10	.57	J	mg/kg	10	.91	J	mg/kg	10
Zinc	2.1	U	mg/kg	4	2.4	U	mg/kg	4	2.8	UJ	mg/kg	4	5.7	J	mg/kg	4
Cyanide	.59	U	mg/kg	.5	.65	U	mg/kg	.5	.64	UJ	mg/kg	.5	.67	UJ	mg/kg	.5

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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FE9				A1FEX				A1FF3				A1FF8			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB9				CF3SB10				CF3SB10D				CF3SB11			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	1080		mg/kg	40	857	J	mg/kg	40	890	J	mg/kg	40	465	J	mg/kg	40
Antimony	.54	UJ	mg/kg	12	.49	U	mg/kg	12	.52	U	mg/kg	12	.55	U	mg/kg	12
Arsenic	.8	UJ	mg/kg	20	.73	UJ	mg/kg	20	.78	UJ	mg/kg	20	.83	UJ	mg/kg	20
Barium	2.4		mg/kg	40	1.7		mg/kg	40	1.5		mg/kg	40	1.8		mg/kg	40
Beryllium	.27	U	mg/kg	1	.24	U	mg/kg	1	.26	U	mg/kg	1	.28	U	mg/kg	1
Cadmium	.27	U	mg/kg	1	.24	U	mg/kg	1	.26	U	mg/kg	1	.28	U	mg/kg	1
Calcium	257	J	mg/kg	1000	307		mg/kg	1000	182	U	mg/kg	1000	377		mg/kg	1000
Chromium	1.1	U	mg/kg	2	.8		mg/kg	2	.82		mg/kg	2	.55	U	mg/kg	2
Cobalt	.54	U	mg/kg	10	.49	U	mg/kg	10	.52	U	mg/kg	10	.55	U	mg/kg	10
Copper	1		mg/kg	5	.49	U	mg/kg	5	.52	U	mg/kg	5	.59		mg/kg	5
Iron	245		mg/kg	20	193	J	mg/kg	20	182	J	mg/kg	20	245	J	mg/kg	20
Lead	1.6	U	mg/kg	.6	1.6	U	mg/kg	.6	1.3	U	mg/kg	.6	2.5		mg/kg	.6
Magnesium	40.9		mg/kg	1000	32.2		mg/kg	1000	31.6		mg/kg	1000	31.8		mg/kg	1000
Manganese	1.9	U	mg/kg	3	1.5		mg/kg	3	1.5		mg/kg	3	2.3		mg/kg	3
Mercury	.12	U	mg/kg	.1	.12	UJ	mg/kg	.1	.14	UJ	mg/kg	.1	.13	UJ	mg/kg	.1
Nickel	.63		mg/kg	8	.49	U	mg/kg	8	.52	U	mg/kg	8	.55	U	mg/kg	8
Potassium	30.3		mg/kg	1000	14.2	U	mg/kg	1000	15.2	U	mg/kg	1000	29	U	mg/kg	1000
Selenium	1.1	U	mg/kg	1	.97	R	mg/kg	1	1	R	mg/kg	1	1.1	R	mg/kg	1
Silver	.27	U	mg/kg	2	.24	U	mg/kg	2	.26	U	mg/kg	2	.28	U	mg/kg	2
Sodium	159		mg/kg	1000	143	U	mg/kg	1000	136	U	mg/kg	1000	208	U	mg/kg	1000
Thallium	1.6	U	mg/kg	2	1.5	UJ	mg/kg	2	1.6	UJ	mg/kg	2	1.7	UJ	mg/kg	2
Vanadium	1		mg/kg	10	1		mg/kg	10	.99		mg/kg	10	1.1		mg/kg	10
Zinc	3.8	U	mg/kg	4	3.4	U	mg/kg	4	3.8	U	mg/kg	4	11.9	U	mg/kg	4
Cyanide	.66	U	mg/kg	.5	.62	U	mg/kg	.5	.66	U	mg/kg	.5	.7	U	mg/kg	.5

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FFD				A1FFG				A1FKN				A1FKW			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB12				CF3SB13				CF3SB25				CF3SB26			
Collect Date:	19-NOV-94				19-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	676	J	mg/kg	40	581	J	mg/kg	40	1540		mg/kg	40	1280		mg/kg	40
Antimony	.62	U	mg/kg	12	.58	U	mg/kg	12	.48	U	mg/kg	12	.52	U	mg/kg	12
Arsenic	.93	UJ	mg/kg	20	.87	UJ	mg/kg	20	.73	U	mg/kg	20	.78	U	mg/kg	20
Barium	2.5		mg/kg	40	1.6		mg/kg	40	2.2	U	mg/kg	40	1.9	U	mg/kg	40
Beryllium	.31	U	mg/kg	1	.29	U	mg/kg	1	.24	U	mg/kg	1	.26	U	mg/kg	1
Cadmium	.31	U	mg/kg	1	.29	U	mg/kg	1	.24	U	mg/kg	1	.26	U	mg/kg	1
Calcium	3400		mg/kg	1000	488		mg/kg	1000	185	U	mg/kg	1000	173	U	mg/kg	1000
Chromium	1		mg/kg	2	.58	U	mg/kg	2	1.1	U	mg/kg	2	1.1	U	mg/kg	2
Cobalt	.62	U	mg/kg	10	.58	U	mg/kg	10	.48	U	mg/kg	10	.52	U	mg/kg	10
Copper	1.4		mg/kg	5	.66		mg/kg	5	.99	U	mg/kg	5	.52	U	mg/kg	5
Iron	297	J	mg/kg	20	221	J	mg/kg	20	305		mg/kg	20	249		mg/kg	20
Lead	3.2		mg/kg	.6	2.9		mg/kg	.6	1.2		mg/kg	.6	1.4		mg/kg	.6
Magnesium	114		mg/kg	1000	45.8		mg/kg	1000	44.2		mg/kg	1000	45		mg/kg	1000
Manganese	3		mg/kg	3	1.8		mg/kg	3	3.6		mg/kg	3	2.5	U	mg/kg	3
Mercury	.15	UJ	mg/kg	.1	.15	UJ	mg/kg	.1	.13	UJ	mg/kg	.1	.12	UJ	mg/kg	.1
Nickel	.81		mg/kg	8	.58	U	mg/kg	8	.81	U	mg/kg	8	.52	U	mg/kg	8
Potassium	27.7	U	mg/kg	1000	19.7	U	mg/kg	1000	22.2	U	mg/kg	1000	20.3	U	mg/kg	1000
Selenium	1.2	R	mg/kg	1	1.2	R	mg/kg	1	.97	U	mg/kg	1	1	U	mg/kg	1
Silver	.31	U	mg/kg	2	.29	U	mg/kg	2	.24	U	mg/kg	2	.26	U	mg/kg	2
Sodium	235	U	mg/kg	1000	182	U	mg/kg	1000	124	U	mg/kg	1000	140	U	mg/kg	1000
Thallium	1.9	UJ	mg/kg	2	1.7	UJ	mg/kg	2	1.5	U	mg/kg	2	1.6	U	mg/kg	2
Vanadium	1.4		mg/kg	10	1.1		mg/kg	10	1.4		mg/kg	10	1.3		mg/kg	10
Zinc	6.1	U	mg/kg	4	9.1	U	mg/kg	4	3.5	U	mg/kg	4	3.8	U	mg/kg	4
Cyanide	.78	U	mg/kg	.5	.73	U	mg/kg	.5	.61	U	mg/kg	.5	.66	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FLA				A1FLV				A1FM9				A1FMG			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB27				CF3SB27D				CF3SB28				CF3SB29			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	1290		mg/kg	40	1300		mg/kg	40	1640		mg/kg	40	1630		mg/kg	40
Antimony	.5	U	mg/kg	12	.49	U	mg/kg	12	.52	U	mg/kg	12	.48	U	mg/kg	12
Arsenic	.75	U	mg/kg	20	.74	U	mg/kg	20	1.1	J	mg/kg	20	.73	U	mg/kg	20
Barium	1.7	U	mg/kg	40	1.6	U	mg/kg	40	12.7		mg/kg	40	2	U	mg/kg	40
Beryllium	.25	U	mg/kg	1	.25	U	mg/kg	1	.26	U	mg/kg	1	.24	U	mg/kg	1
Cadmium	.25	U	mg/kg	1	.25	U	mg/kg	1	1.1		mg/kg	1	.24	U	mg/kg	1
Calcium	87.2	U	mg/kg	1000	81.5	U	mg/kg	1000	235000		mg/kg	1000	272		mg/kg	1000
Chromium	1	U	mg/kg	2	1	U	mg/kg	2	8.9		mg/kg	2	2.3	U	mg/kg	2
Cobalt	.5	U	mg/kg	10	.49	U	mg/kg	10	.52	U	mg/kg	10	.48	U	mg/kg	10
Copper	.5	U	mg/kg	5	.82	U	mg/kg	5	19.4		mg/kg	5	.48	U	mg/kg	5
Iron	257		mg/kg	20	265		mg/kg	20	1050		mg/kg	20	323		mg/kg	20
Lead	1.5		mg/kg	.6	1.2		mg/kg	.6	5.9		mg/kg	.6	4.5		mg/kg	.6
Magnesium	39.2		mg/kg	1000	30.1	U	mg/kg	1000	1620		mg/kg	1000	43.5		mg/kg	1000
Manganese	4.7		mg/kg	3	1.9	U	mg/kg	3	32.3		mg/kg	3	3.4		mg/kg	3
Mercury	.13	UJ	mg/kg	.1	.13	UJ	mg/kg	.1	.21	J	mg/kg	.1	.12	UJ	mg/kg	.1
Nickel	.6	U	mg/kg	8	.57	U	mg/kg	8	1.4	U	mg/kg	8	1.6	U	mg/kg	8
Potassium	18.5	U	mg/kg	1000	17.8	U	mg/kg	1000	143		mg/kg	1000	22	U	mg/kg	1000
Selenium	1	U	mg/kg	1	.98	U	mg/kg	1	1	U	mg/kg	1	1.1		mg/kg	1
Silver	.25	U	mg/kg	2	.25	U	mg/kg	2	1.4		mg/kg	2	.24	U	mg/kg	2
Sodium	143	U	mg/kg	1000	135	U	mg/kg	1000	361	U	mg/kg	1000	147	U	mg/kg	1000
Thallium	1.5	U	mg/kg	2	1.5	U	mg/kg	2	1.6	U	mg/kg	2	1.5	U	mg/kg	2
Vanadium	1.2		mg/kg	10	1.2		mg/kg	10	4.5		mg/kg	10	1.4		mg/kg	10
Zinc	4.1	U	mg/kg	4	3.2	U	mg/kg	4	36.9		mg/kg	4	7.7	U	mg/kg	4
Cyanide	.64	U	mg/kg	.5	.62	U	mg/kg	.5	1.3		mg/kg	.5	.61	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A1FMK				A1FMN				A1FMQ				A1FNO			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB30				CF3SB31				CF3SB32				CF3SB32D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	974		mg/kg	40	739		mg/kg	40	525		mg/kg	40	1120		mg/kg	40
Antimony	.99		mg/kg	12	.56	U	mg/kg	12	.51	U	mg/kg	12	.84	U	mg/kg	12
Arsenic	.87	U	mg/kg	20	.84	U	mg/kg	20	.77	U	mg/kg	20	1.3	U	mg/kg	20
Barium	7.3		mg/kg	40	1.7	U	mg/kg	40	1.4	U	mg/kg	40	4.3	U	mg/kg	40
Beryllium	.29	U	mg/kg	1	.28	U	mg/kg	1	.26	U	mg/kg	1	.42	U	mg/kg	1
Cadmium	2.6		mg/kg	1	.28	U	mg/kg	1	.26	U	mg/kg	1	.54		mg/kg	1
Calcium	2410		mg/kg	1000	153	U	mg/kg	1000	123	U	mg/kg	1000	759		mg/kg	1000
Chromium	4.7		mg/kg	2	.56	U	mg/kg	2	.88	U	mg/kg	2	1	U	mg/kg	2
Cobalt	.58	U	mg/kg	10	.56	U	mg/kg	10	.51	U	mg/kg	10	.84	U	mg/kg	10
Copper	10.6	U	mg/kg	5	.99	U	mg/kg	5	.51	U	mg/kg	5	3.9	U	mg/kg	5
Iron	391		mg/kg	20	427		mg/kg	20	157		mg/kg	20	394		mg/kg	20
Lead	7.4		mg/kg	.6	3.8		mg/kg	.6	2		mg/kg	.6	6.5		mg/kg	.6
Magnesium	131		mg/kg	1000	37.4	U	mg/kg	1000	45.1		mg/kg	1000	133		mg/kg	1000
Manganese	6.1		mg/kg	3	1.2	U	mg/kg	3	.94	U	mg/kg	3	4.5		mg/kg	3
Mercury	.15	UJ	mg/kg	.1	.13	UJ	mg/kg	.1	.13	UJ	mg/kg	.1	.21	UJ	mg/kg	.1
Nickel	2.3	U	mg/kg	8	.56	U	mg/kg	8	.62	U	mg/kg	8	1.7	U	mg/kg	8
Potassium	30.5	U	mg/kg	1000	24.3	U	mg/kg	1000	19.8	U	mg/kg	1000	43.6	U	mg/kg	1000
Selenium	1.2	U	mg/kg	1	1.1	U	mg/kg	1	1	U	mg/kg	1	1.7	U	mg/kg	1
Silver	.29	U	mg/kg	2	.28	U	mg/kg	2	.26	U	mg/kg	2	.42	U	mg/kg	2
Sodium	214	U	mg/kg	1000	181	U	mg/kg	1000	184	U	mg/kg	1000	298	U	mg/kg	1000
Thallium	1.7	U	mg/kg	2	1.7	U	mg/kg	2	1.5	U	mg/kg	2	2.5	U	mg/kg	2
Vanadium	1.6		mg/kg	10	1.5		mg/kg	10	1.1		mg/kg	10	2.3		mg/kg	10
Zinc	23.5		mg/kg	4	4	U	mg/kg	4	4.1	U	mg/kg	4	11.1	U	mg/kg	4
Cyanide	.73	U	mg/kg	.5	.7	U	mg/kg	.5	.64	U	mg/kg	.5	1	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1DVH				A1FC6				A1DVC				A1F8V			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB3				CF3SB1				CF3SB2				CF3SB7			
Collect Date:	18-NOV-94				20-NOV-94				18-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	12	UJ	mg/kg	12	12	U	mg/kg	12	12	U	mg/kg	12	220	J	mg/kg	18

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1DVH				A1DVK				A1DVM				A1DVP			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB3				CF3SB4				CF3SB5				CF3SB6			
Collect Date:	18-NOV-94				18-NOV-94				18-NOV-94				18-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	12	UJ	mg/kg	12	12	U	mg/kg	12	1600		mg/kg	130	480		mg/kg	26

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1F8V				A1F90				A1F93				A1F9F			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB7				CF3SB8				CF3SB9				CF3SB10			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	220	J	mg/kg	18	12	UJ	mg/kg	12	12	U	mg/kg	12	13	U	mg/kg	13

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1F9H				A1F9K				A1F9P				A1F9R			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB10D				CF3SB11				CF3SB12				CF3SB13			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	13	U	mg/kg	13	14	U	mg/kg	14	17	U	mg/kg	17	16	U	mg/kg	16

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1FAH				A1FAJ				A1FAK				A1FAL			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB25				CF3SB26				CF3SB27				CF3SB27D			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	13	U	mg/kg	13	37		mg/kg	13	13	U	mg/kg	13	13	U	mg/kg	13

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1FAQ				A1FAT				A1FAV				A1FC0			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB28				CF3SB29				CF3SB30				CF3SB31			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	20		mg/kg	12	21		mg/kg	12	30		mg/kg	14	14	U	mg/kg	14

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SUBSURFACE SOIL -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		A1FC2				A1FC3		
Site		CECIL8				CECIL8		
Locator		CF3SB32				CF3SB32D		
Collect Date:		20-NOV-94				20-NOV-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	14	U	mg/kg	14	12	U	mg/kg	12

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

	Lab Sample Number:	L4456			L3868			L4457			L3870		
	Site	CECIL8			CECIL8			CECIL8			CECIL8		
	Locator	CF3MW1			CF3MW3S			CF3MW4S			CF3MW5S		
	Collect Date:	24-MAR-94			23-MAR-94			24-MAR-94			23-MAR-94		
		VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW													
Chloromethane		2 U	ug/l	2	5 U	ug/l	5	20 U	ug/l	20	2 U	ug/l	2
Bromomethane		2 U	ug/l	2	5 U	ug/l	5	20 U	ug/l	20	2 U	ug/l	2
Vinyl chloride		2 U	ug/l	2	5 U	ug/l	5	20 U	ug/l	20	2 U	ug/l	2
Chloroethane		2 U	ug/l	2	5 U	ug/l	5	20 U	ug/l	20	2 U	ug/l	2
Methylene chloride		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Acetone		2 U	ug/l	2	30 U	ug/l	30	60 U	ug/l	60	11 U	ug/l	11
Carbon disulfide		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
1,1-Dichloroethene		1 U	ug/l	1	2 U	ug/l	2	44	ug/l	20	1 U	ug/l	1
1,1-Dichloroethane		1 U	ug/l	1	2 U	ug/l	2	350	ug/l	20	1 U	ug/l	1
1,2-Dichloroethene (total)		1 U	ug/l	1	47	ug/l	5	10 U	ug/l	10	1 U	ug/l	1
Chloroform		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
1,2-Dichloroethane		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
2-Butanone		2 U	ug/l	2	5 U	ug/l	5	25	ug/l	20	2 U	ug/l	2
1,1,1-Trichloroethane		1 U	ug/l	1	3 U	ug/l	3	96	ug/l	20	1 U	ug/l	1
Carbon tetrachloride		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Bromodichloromethane		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
1,2-Dichloropropane		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
cis-1,3-Dichloropropene		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Trichloroethene		1 U	ug/l	1	70 J	ug/l	5	10 U	ug/l	10	1 U	ug/l	1
Dibromochloromethane		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
1,1,2-Trichloroethane		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Benzene		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
trans-1,3-Dichloropropene		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Bromoform		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
4-Methyl-2-pentanone		2 U	ug/l	2	5 U	ug/l	5	20 U	ug/l	20	2 U	ug/l	2
2-Hexanone		2 U	ug/l	2	5 U	ug/l	5	20 U	ug/l	20	2 U	ug/l	2
Tetrachloroethene		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Toluene		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
1,1,2,2-Tetrachloroethane		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Chlorobenzene		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Ethylbenzene		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Styrene		1 U	ug/l	1	2 U	ug/l	2	10 U	ug/l	10	1 U	ug/l	1
Xylenes (total)		1 U	ug/l	1	9 J	ug/l	5	42 J	ug/l	20	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

Lab Sample Number:	L3871			L3795			L3796			L3794		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW6S			CF3MW7D			CF3MW7DD			CF3MW7S		
Collect Date:	23-MAR-94			22-MAR-94			22-MAR-94			22-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	50 U	ug/l	50	2 U	ug/l	2	2 U	ug/l	2	83 U	ug/l	83
Bromomethane	50 U	ug/l	50	2 U	ug/l	2	2 U	ug/l	2	83 U	ug/l	83
Vinyl chloride	50 U	ug/l	50	2 U	ug/l	2	2 U	ug/l	2	83 U	ug/l	83
Chloroethane	50 U	ug/l	50	2 U	ug/l	2	2 U	ug/l	2	83 U	ug/l	83
Methylene chloride	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Acetone	71 U	ug/l	71	4 U	ug/l	4	8 U	ug/l	8	180	ug/l	83
Carbon disulfide	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
1,1-Dichloroethene	48	ug/l	50	1 U	ug/l	1	1 U	ug/l	1	280	ug/l	83
1,1-Dichloroethane	590	ug/l	50	1 U	ug/l	1	1 U	ug/l	1	160	ug/l	83
1,2-Dichloroethene (total)	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Chloroform	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
1,2-Dichloroethane	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
2-Butanone	50 U	ug/l	50	1 J	ug/l	2	2 U	ug/l	2	83 U	ug/l	83
1,1,1-Trichloroethane	150	ug/l	50	1 U	ug/l	1	1 U	ug/l	1	860	ug/l	83
Carbon tetrachloride	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Bromodichloromethane	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
1,2-Dichloropropane	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
cis-1,3-Dichloropropene	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Trichloroethene	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	550 J	ug/l	83
Dibromochloromethane	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
1,1,2-Trichloroethane	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Benzene	26	ug/l	50	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
trans-1,3-Dichloropropene	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Bromoform	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
4-Methyl-2-pentanone	50 U	ug/l	50	2 U	ug/l	2	2 U	ug/l	2	83 U	ug/l	83
2-Hexanone	50 U	ug/l	50	2 U	ug/l	2	2 U	ug/l	2	83 U	ug/l	83
Tetrachloroethene	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Toluene	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
1,1,2,2-Tetrachloroethane	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Chlorobenzene	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Ethylbenzene	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Styrene	25 U	ug/l	25	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42
Xylenes (total)	32 J	ug/l	50	1 U	ug/l	1	1 U	ug/l	1	42 U	ug/l	42

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

Lab Sample Number:	K9598			K9601			K9599			L0343		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW8S			CF3MW9I			CF3MW10D			CF3MW11I		
Collect Date:	11-MAR-94			11-MAR-94			11-MAR-94			14-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Acetone	2 UJ	ug/l	2	3 UJ	ug/l	3	2 UJ	ug/l	2	2 UJ	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
2-Hexanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

	L0345				L4889				A1HHQ				L4890			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW12D				CF3MW13S				CF3MW13S				CF3MW14I			
Collect Date:	14-MAR-94				25-MAR-94				28-NOV-94				25-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	170	U	ug/l	170	620	U	ug/l	620	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	170	U	ug/l	170	620	U	ug/l	620	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	170	U	ug/l	170	620	U	ug/l	620	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	170	U	ug/l	170	620	U	ug/l	620	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Acetone	2	UJ	ug/l	2	550	U	ug/l	550	620	U	ug/l	620	27	U	ug/l	27
Carbon disulfide	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	350		ug/l	170	310	U	ug/l	310	2		ug/l	2
1,1-Dichloroethane	1	U	ug/l	1	120		ug/l	170	310	U	ug/l	310	1		ug/l	2
1,2-Dichloroethene (total)	1	U	ug/l	1	1900		ug/l	83	1400		ug/l	310	1	U	ug/l	1
Chloroform	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	170	U	ug/l	170	620	U	ug/l	620	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	260		ug/l	170	310	U	ug/l	310	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1700		ug/l	83	1200		ug/l	310	9		ug/l	2
Dibromochloromethane	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Benzene	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Bromoform	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	170	U	ug/l	170	620	U	ug/l	620	2	U	ug/l	2
2-Hexanone	2	U	ug/l	2	170	U	ug/l	170	620	U	ug/l	620	2	U	ug/l	2
Tetrachloroethene	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Toluene	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Styrene	1	U	ug/l	1	83	U	ug/l	83	310	U	ug/l	310	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	150		ug/l	170	310	U	ug/l	310	22		ug/l	2

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

Lab Sample Number:	L4891			K9383			K9384			K9385		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW15D			CF3MW16S			CF3MW17D			CF3MW17DD		
Collect Date:	25-MAR-94			10-MAR-94			10-MAR-94			10-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Acetone	5 U	ug/l	5	2 U	ug/l	2	2 UJ	ug/l	2	2 UJ	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
2-Hexanone	2 U	ug/l	2	2 R	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

Lab Sample Number:	L2911				L2910				K8855				K8857			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW18S				CF3MW19D				CF3MW20S				CF3MW21I			
Collect Date:	21-MAR-94				21-MAR-94				14-MAR-94				14-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Acetone	3	U	ug/l	3	2	U	ug/l	2	4	UJ	ug/l	4	2	UJ	ug/l	2
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	4		ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	8		ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Hexanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

	K8859				L5604				L1187				L1188			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW22D				CF3MW23S				CF3MW24D				CF3MW24DD			
Collect Date:	14-MAR-94				27-MAR-94				16-MAR-94				16-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Acetone	2	UJ	ug/l	2	16	U	ug/l	16	2	UJ	ug/l	2	2	UJ	ug/l	2
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	2		ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Hexanone	2	U	ug/l	2	2	U	ug/l	2	2	R	ug/l	2	2	R	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

Lab Sample Number:	L5592				L5593				L2913				L5595			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW25S				CF3MW26I				CF3MW27D				CF3MW28S			
Collect Date:	27-MAR-94				27-MAR-94				21-MAR-94				27-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	50	U	ug/l	50
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	50	U	ug/l	50
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	50	U	ug/l	50
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	50	U	ug/l	50
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Acetone	2	U	ug/l	2	2	U	ug/l	2	10	U	ug/l	10	210	U	ug/l	210
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	160		ug/l	50
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	94		ug/l	50
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	110		ug/l	50
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	50	U	ug/l	50
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	480		ug/l	50
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	50	U	ug/l	50
2-Hexanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	50	U	ug/l	50
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	25	U	ug/l	25

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

Lab Sample Number:	A1HHV				L0650				L0651				L5603			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW28S				CF3MW29D				CF3MW30DD				CF3MW31S			
Collect Date:	28-NOV-94				15-MAR-94				15-MAR-94				27-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	50	U	ug/l	50	2	U	ug/l	2	2	U	ug/l	2	3	U	ug/l	3
Bromomethane	50	U	ug/l	50	2	U	ug/l	2	2	U	ug/l	2	3	U	ug/l	3
Vinyl chloride	50	U	ug/l	50	2	U	ug/l	2	2	U	ug/l	2	3	U	ug/l	3
Chloroethane	50	U	ug/l	50	2	U	ug/l	2	2	U	ug/l	2	3	U	ug/l	3
Methylene chloride	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Acetone	50	U	ug/l	50	2	U	ug/l	2	2	U	ug/l	2	6	U	ug/l	6
Carbon disulfide	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
1,1-Dichloroethene	120		ug/l	50	1	U	ug/l	1	1	U	ug/l	1	28		ug/l	3
1,1-Dichloroethane	58		ug/l	50	1	U	ug/l	1	1	U	ug/l	1	9		ug/l	3
1,2-Dichloroethene (total)	120		ug/l	50	1	U	ug/l	1	1	U	ug/l	1	9		ug/l	3
Chloroform	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
1,2-Dichloroethane	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
2-Butanone	50	U	ug/l	50	2	U	ug/l	2	2	U	ug/l	2	3	U	ug/l	3
1,1,1-Trichloroethane	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Carbon tetrachloride	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Bromodichloromethane	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
1,2-Dichloropropane	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
cis-1,3-Dichloropropene	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Trichloroethene	450		ug/l	50	1	U	ug/l	1	1	U	ug/l	1	48		ug/l	3
Dibromochloromethane	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
1,1,2-Trichloroethane	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Benzene	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
trans-1,3-Dichloropropene	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Bromoform	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
4-Methyl-2-pentanone	38	J	ug/l	50	2	U	ug/l	2	2	U	ug/l	2	3	U	ug/l	3
2-Hexanone	50	R	ug/l	50	2	R	ug/l	2	2	R	ug/l	2	3	U	ug/l	3
Tetrachloroethene	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Toluene	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
1,1,2,2-Tetrachloroethane	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Chlorobenzene	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Ethylbenzene	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Styrene	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2
Xylenes (total)	25	U	ug/l	25	1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- VOLATILES

Lab Sample Number:	L5601			L2912			M7119			M7118		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW32D			CF3MW33DD			CF3MW34S			CF3MW35D		
Collect Date:	27-MAR-94			21-MAR-94			03-MAY-94			03-MAY-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Acetone	6 U	ug/l	6	5 U	ug/l	5	5 UJ	ug/l	5	2 UJ	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	1 J	ug/l	2	2 U	ug/l	2	2 UJ	ug/l	2	2 UJ	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
2-Hexanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L4456			L3868			L4457			L3870		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW1			CF3MW3S			CF3MW4S			CF3MW5S		
Collect Date:	24-MAR-94			23-MAR-94			24-MAR-94			23-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	12	ug/l	10	3 J	ug/l	25	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	2 J	ug/l	25	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Naphthalene	1 J	ug/l	10	59	ug/l	10	160	ug/l	25	1 J	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	41	ug/l	10	96	ug/l	25	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	62 U	ug/l	62	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	62 U	ug/l	62	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	62 U	ug/l	62	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	62 U	ug/l	62	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	62 U	ug/l	62	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	3 J	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
4-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	62 U	ug/l	62	25 U	ug/l	25
4,6-Dinitro-2-methylphenol	25 U	ug/l	25	25 U	ug/l	25	62 U	ug/l	62	25 U	ug/l	25
N-Nitrosodiphenylamine (1)	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
4-Bromophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Hexachlorobenzene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Pentachlorophenol	25 U	ug/l	25	25 U	ug/l	25	62 U	ug/l	62	25 U	ug/l	25
Phenanthrene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Anthracene	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Carbazole	10 U	ug/l	10	10 U	ug/l	10	25 U	ug/l	25	10 U	ug/l	10
Di-n-butylphthalate	10 U	ug/l	10	.8 J	ug/l	10	25 U	ug/l	25	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L4456				L3868				L4457				L3870			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW1				CF3MW3S				CF3MW4S				CF3MW5S			
Collect Date:	24-MAR-94				23-MAR-94				24-MAR-94				23-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	2	J	ug/l	10	1	J	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	25	U	ug/l	25	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L3871			L3795			L3796			L3794		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW6S			CF3MW7D			CF3MW7DD			CF3MW7S		
Collect Date:	23-MAR-94			22-MAR-94			22-MAR-94			22-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
bis(2-Chloroethyl) ether	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2-Chlorophenol	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
1,3-Dichlorobenzene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	9 J	ug/l	50
1,4-Dichlorobenzene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	49 J	ug/l	50
1,2-Dichlorobenzene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	350	ug/l	50
2-Methylphenol	8 J	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2,2-oxybis(1-Chloropropane)	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
4-Methylphenol	61	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	4 J	ug/l	50
N-Nitroso-di-n-propylamine	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
Hexachloroethane	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
Nitrobenzene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
Isophorone	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2-Nitrophenol	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2,4-Dimethylphenol	10 J	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
bis(2-Chloroethoxy) methane	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2,4-Dichlorophenol	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
1,2,4-Trichlorobenzene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
Naphthalene	270	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	150	ug/l	50
4-Chloroaniline	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
Hexachlorobutadiene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
4-Chloro-3-methylphenol	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2-Methylnaphthalene	120	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	94	ug/l	50
Hexachlorocyclopentadiene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2,4,6-Trichlorophenol	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2,4,5-Trichlorophenol	100 U	ug/l	100	25 U	ug/l	25	25 U	ug/l	25	120 U	ug/l	120
2-Chloronaphthalene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2-Nitroaniline	100 U	ug/l	100	25 U	ug/l	25	25 U	ug/l	25	120 U	ug/l	120
Dimethylphthalate	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
Acenaphthylene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2,6-Dinitrotoluene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
3-Nitroaniline	100 U	ug/l	100	25 U	ug/l	25	25 U	ug/l	25	120 U	ug/l	120
Acenaphthene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2,4-Dinitrophenol	100 U	ug/l	100	25 U	ug/l	25	25 U	ug/l	25	120 U	ug/l	120
4-Nitrophenol	100 U	ug/l	100	25 U	ug/l	25	25 U	ug/l	25	120 U	ug/l	120
Dibenzofuran	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
2,4-Dinitrotoluene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
Diethylphthalate	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
4-Chlorophenyl-phenylether	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50
Fluorene	40 U	ug/l	40	10 U	ug/l	10	10 U	ug/l	10	50 U	ug/l	50

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L3871				L3795				L3796				L3794			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW6S				CF3MW7D				CF3MW7DD				CF3MW7S			
Collect Date:	23-MAR-94				22-MAR-94				22-MAR-94				22-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	100	U	ug/l	100	25	U	ug/l	25	25	U	ug/l	25	120	U	ug/l	120
4,6-Dinitro-2-methylphenol	100	U	ug/l	100	25	U	ug/l	25	25	U	ug/l	25	120	U	ug/l	120
N-Nitrosodiphenylamine (1)	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
4-Bromophenyl-phenylether	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Hexachlorobenzene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Pentachlorophenol	100	U	ug/l	100	25	U	ug/l	25	25	U	ug/l	25	120	U	ug/l	120
Phenanthrene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Anthracene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Carbazole	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Di-n-butylphthalate	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Fluoranthene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Pyrene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Butylbenzylphthalate	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
3,3-Dichlorobenzidine	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Benzo (a) anthracene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Chrysene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
bis(2-Ethylhexyl) phthalate	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Di-n-octylphthalate	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Benzo (b) fluoranthene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	3	J	ug/l	50
Benzo (k) fluoranthene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Benzo (a) pyrene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Indeno (1,2,3-cd) pyrene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Dibenz (a,h) anthracene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50
Benzo (g,h,i) perylene	40	U	ug/l	40	10	U	ug/l	10	10	U	ug/l	10	50	U	ug/l	50

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	K9598			K9601			K9599			L0343		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW8S			CF3MW9I			CF3MW10D			CF3MW11I		
Collect Date:	11-MAR-94			11-MAR-94			11-MAR-94			14-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	10 U	ug/l	10	.8 J	ug/l	10	10	ug/l	20
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Naphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	K9598				K9601				K9599				L0343			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW8S				CF3MW9I				CF3MW10D				CF3MW11I			
Collect Date:	11-MAR-94				11-MAR-94				11-MAR-94				14-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	1	J	ug/l	10	2	J	ug/l	10	2	J	ug/l	20
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L0345			L4889			A1HHQ			L4890		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW12D			CF3MW13S			CF3MW13S			CF3MW14I		
Collect Date:	14-MAR-94			25-MAR-94			28-NOV-94			25-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
bis(2-Chloroethyl) ether	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2-Chlorophenol	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
1,3-Dichlorobenzene	10 U	ug/l	10	240 J	ug/l	2000	140 J	ug/l	10	36 J	ug/l	200
1,4-Dichlorobenzene	10 U	ug/l	10	1300 J	ug/l	2000	830 J	ug/l	10	170 J	ug/l	200
1,2-Dichlorobenzene	10 U	ug/l	10	9800 J	ug/l	2000	3600 J	ug/l	10	1100	ug/l	200
2-Methylphenol	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
4-Methylphenol	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
N-Nitroso-di-n-propylamine	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
Hexachloroethane	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
Nitrobenzene	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
Isophorone	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2-Nitrophenol	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2,4-Dimethylphenol	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
bis(2-Chloroethoxy) methane	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2,4-Dichlorophenol	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
1,2,4-Trichlorobenzene	10 U	ug/l	10	2000 UJ	ug/l	2000	12	ug/l	10	200 U	ug/l	200
Naphthalene	10 U	ug/l	10	450 J	ug/l	2000	240 J	ug/l	10	14 J	ug/l	200
4-Chloroaniline	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
Hexachlorobutadiene	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
4-Chloro-3-methylphenol	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2-Methylnaphthalene	10 U	ug/l	10	200 J	ug/l	2000	140 J	ug/l	10	200 U	ug/l	200
Hexachlorocyclopentadiene	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2,4,6-Trichlorophenol	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2,4,5-Trichlorophenol	25 U	ug/l	25	5000 UJ	ug/l	5000	25 U	ug/l	25	500 U	ug/l	500
2-Chloronaphthalene	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2-Nitroaniline	25 U	ug/l	25	5000 UJ	ug/l	5000	25 U	ug/l	25	500 U	ug/l	500
Dimethylphthalate	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
Acenaphthylene	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2,6-Dinitrotoluene	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
3-Nitroaniline	25 U	ug/l	25	5000 UJ	ug/l	5000	25 U	ug/l	25	500 U	ug/l	500
Acenaphthene	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2,4-Dinitrophenol	25 U	ug/l	25	5000 UJ	ug/l	5000	25 U	ug/l	25	500 U	ug/l	500
4-Nitrophenol	25 U	ug/l	25	5000 UJ	ug/l	5000	25 U	ug/l	25	500 U	ug/l	500
Dibenzofuran	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
2,4-Dinitrotoluene	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
Diethylphthalate	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
4-Chlorophenyl-phenylether	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200
Fluorene	10 U	ug/l	10	2000 UJ	ug/l	2000	10 U	ug/l	10	200 U	ug/l	200

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L0345				L4889				A1HHQ				L4890			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW12D				CF3MW13S				CF3MW13S				CF3MW14I			
Collect Date:	14-MAR-94				25-MAR-94				28-NOV-94				25-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	5000	UJ	ug/l	5000	25	U	ug/l	25	500	U	ug/l	500
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	5000	UJ	ug/l	5000	25	U	ug/l	25	500	U	ug/l	500
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	2000	UJ	ug/l	2000	2	J	ug/l	10	200	U	ug/l	200
4-Bromophenyl-phenylether	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Hexachlorobenzene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Pentachlorophenol	25	U	ug/l	25	5000	UJ	ug/l	5000	25	U	ug/l	25	500	U	ug/l	500
Phenanthrene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Anthracene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Carbazole	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Di-n-butylphthalate	10	U	ug/l	10	2000	UJ	ug/l	2000	.8	J	ug/l	10	200	U	ug/l	200
Fluoranthene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Pyrene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Butylbenzylphthalate	10	U	ug/l	10	2000	UJ	ug/l	2000	.6	J	ug/l	10	200	U	ug/l	200
3,3-Dichlorobenzidine	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Benzo (a) anthracene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Chrysene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
bis(2-Ethylhexyl) phthalate	2	J	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Di-n-octylphthalate	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Benzo (b) fluoranthene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Benzo (k) fluoranthene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Benzo (a) pyrene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Dibenz (a,h) anthracene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200
Benzo (g,h,i) perylene	10	U	ug/l	10	2000	UJ	ug/l	2000	10	U	ug/l	10	200	U	ug/l	200

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L4891			K9383			K9384			K9385		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW15D			CF3MW16S			CF3MW17D			CF3MW17DD		
Collect Date:	25-MAR-94			10-MAR-94			10-MAR-94			10-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	.5 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Naphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	1 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L4891				K9383				K9384				K9385			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW15D				CF3MW16S				CF3MW17D				CF3MW17DD			
Collect Date:	25-MAR-94				10-MAR-94				10-MAR-94				10-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	2	J	ug/l	10	8	J	ug/l	10	13		ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:		L2911				L2910				K8855				K8857		
Site		CECIL8				CECIL8				CECIL8				CECIL8		
Locator		CF3MW18S				CF3MW19D				CF3MW20S				CF3MW21I		
Collect Date:		21-MAR-94				21-MAR-94				09-MAR-94				09-MAR-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	2	J	ug/l	10	10	U	ug/l	10	5	J	ug/l	10	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	5	J	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Naphthalene	.6	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	.8	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L2911				L2910				K8855				K8857			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW18S				CF3MW19D				CF3MW20S				CF3MW21I			
Collect Date:	21-MAR-94				21-MAR-94				09-MAR-94				09-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	.6	J	ug/l	10	10	U	ug/l	10	3	J	ug/l	10	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:		K8859				L5604				L1187				L1188				
Site		CECIL8				CECIL8				CECIL8				CECIL8				
Locator		CF3MW22D				CF3MW23S				CF3MW24D				CF3MW24DD				
Collect Date:		09-MAR-94				27-MAR-94				16-MAR-94				16-MAR-94				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
CLP SEMIVOLATILES 90-SOW																		
Phenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	.9	J	ug/l	10		
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
4-Nitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	K8859				L5604				L1187				L1188			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW22D				CF3MW23S				CF3MW24D				CF3MW24DD			
Collect Date:	09-MAR-94				27-MAR-94				16-MAR-94				16-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L5592			L5593			L2913			L5595		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW25S			CF3MW26I			CF3MW27D			CF3MW28S		
Collect Date:	27-MAR-94			27-MAR-94			21-MAR-94			27-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	10 U	ug/l	10	.8 J	ug/l	10	100 U	ug/l	100
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	17 J	ug/l	200
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	83 J	ug/l	200
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	600	ug/l	200
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
Naphthalene	8 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	77 J	ug/l	200
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2-Methylnaphthalene	1 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	52 J	ug/l	200
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	250 U	ug/l	250
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	250 U	ug/l	250
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	250 U	ug/l	250
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	250 U	ug/l	250
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	250 U	ug/l	250
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	100 U	ug/l	100

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L5592				L5593				L2913				L5595			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW25S				CF3MW26I				CF3MW27D				CF3MW28S			
Collect Date:	27-MAR-94				27-MAR-94				21-MAR-94				27-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	250	U	ug/l	250
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	250	U	ug/l	250
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	250	U	ug/l	250
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
bis(2-Ethylhexyl) phthalate	.9	J	ug/l	10	10	U	ug/l	10	.5	J	ug/l	10	100	U	ug/l	100
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	100	U	ug/l	100

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	A1HHV			L0650			L0651			L5603		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW28S			CF3MW29D			CF3MW30DD			CF3MW31S		
Collect Date:	28-NOV-94			15-MAR-94			15-MAR-94			27-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	.6 J	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	.9 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	15	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	64	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	430 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	.5 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	19	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	.5 J	ug/l	10
2,4-Dichlorophenol	5 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	2 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Naphthalene	46	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	38	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	A1HHV				L0650				L0651				L5603			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW28S				CF3MW29D				CF3MW30DD				CF3MW31S			
Collect Date:	28-NOV-94				15-MAR-94				15-MAR-94				27-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	5	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:		L5601				L2912				M7119				M7118				
Site		CECIL8				CECIL8				CECIL8				CECIL8				
Locator		CF3MW32D				CF3MW33DD				CF3MW34S				CF3MW35D				
Collect Date:		27-MAR-94				21-MAR-94				03-MAY-94				03-MAY-94				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
CLP SEMIVOLATILES 90-SOW																		
Phenol	10	U	ug/l	10	1	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
4-Nitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25		
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10		

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	L5601				L2912				M7119				M7118			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW32D				CF3MW33DD				CF3MW34S				CF3MW35D			
Collect Date:	27-MAR-94				21-MAR-94				03-MAY-94				03-MAY-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	2	J	ug/l	10	61		ug/l	10	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	L4456				L3868				L4457				L3870			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW1				CF3MW3S				CF3MW4S				CF3MW5S			
Collect Date:	24-MAR-94				23-MAR-94				24-MAR-94				23-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.047	J	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.03	UJ	ug/l	.03
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.01	UJ	ug/l	.01
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.02	UJ	ug/l	.02	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	.8	UJ	ug/l	.8	.6	J	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

	L3871				L3795				L3796				L3794			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW6S				CF3MW7D				CF3MW7DD				CF3MW7S			
Collect Date:	23-MAR-94				22-MAR-94				22-MAR-94				22-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.08	UJ	ug/l	.08	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.01	UJ	ug/l	.01	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.01	UJ	ug/l	.01	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.042	J	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	.6	UJ	ug/l	.6
Aroclor-1248	.79	J	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	K9598				K9601				K9599				L0343			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW8S				CF3MW9I				CF3MW10D				CF3MW11I			
Collect Date:	11-MAR-94				11-MAR-94				11-MAR-94				14-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	U	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	U	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	L0345			L4889			L4890			L4891		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW12D			CF3MW13S			CF3MW14I			CF3MW15D		
Collect Date:	14-MAR-94			25-MAR-94			25-MAR-94			25-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
beta-BHC	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
delta-BHC	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
gamma-BHC (Lindane)	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
Heptachlor	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
Aldrin	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
Heptachlor epoxide	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
Endosulfan I	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
Dieldrin	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 UJ	ug/l	.1	.1 U	ug/l	.1
4,4-DDE	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 UJ	ug/l	.1	.1 U	ug/l	.1
Endrin	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 UJ	ug/l	.1	.1 U	ug/l	.1
Endosulfan II	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 UJ	ug/l	.1	.1 U	ug/l	.1
4,4-DDD	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 UJ	ug/l	.1	.1 U	ug/l	.1
Endosulfan sulfate	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 UJ	ug/l	.1	.1 U	ug/l	.1
4,4-DDT	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 UJ	ug/l	.1	.1 U	ug/l	.1
Methoxychlor	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 UJ	ug/l	.5	.5 U	ug/l	.5
Endrin ketone	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 UJ	ug/l	.1	.1 U	ug/l	.1
Endrin aldehyde	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 UJ	ug/l	.1	.1 U	ug/l	.1
alpha-Chlordane	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
gamma-Chlordane	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 UJ	ug/l	.05	.05 U	ug/l	.05
Toxaphene	5 U	ug/l	5	5 U	ug/l	5	5 UJ	ug/l	5	5 U	ug/l	5
Aroclor-1016	1 U	ug/l	1	1 U	ug/l	1	1 UJ	ug/l	1	1 U	ug/l	1
Aroclor-1221	2 U	ug/l	2	2 U	ug/l	2	2 UJ	ug/l	2	2 U	ug/l	2
Aroclor-1232	1 U	ug/l	1	1 U	ug/l	1	1 UJ	ug/l	1	1 U	ug/l	1
Aroclor-1242	1 U	ug/l	1	1 U	ug/l	1	1 UJ	ug/l	1	1 U	ug/l	1
Aroclor-1248	1 U	ug/l	1	1 U	ug/l	1	1 UJ	ug/l	1	1 U	ug/l	1
Aroclor-1254	1 U	ug/l	1	1 U	ug/l	1	1 UJ	ug/l	1	1 U	ug/l	1
Aroclor-1260	1 U	ug/l	1	1 U	ug/l	1	1 UJ	ug/l	1	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

	K9383				K9384				K9385				L2911			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW16S				CF3MW17D				CF3MW17DD				CF3MW18S			
Collect Date:	10-MAR-94				10-MAR-94				10-MAR-94				21-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.01	U	ug/l	.01
Aldrin	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	UJ	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5	5	UJ	ug/l	5	5	U	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2	2	UJ	ug/l	2	2	U	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

	L2910				K8855				K8857				K8859			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW19D				CF3MW20S				CF3MW21I				CF3MW22D			
Collect Date:	21-MAR-94				09-MAR-94				09-MAR-94				09-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Heptachlor	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Aldrin	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Heptachlor epoxide	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Endosulfan I	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDE	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endrin	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endosulfan II	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDD	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endosulfan sulfate	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDT	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Methoxychlor	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endrin aldehyde	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
alpha-Chlordane	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-Chlordane	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Toxaphene	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Aroclor-1016	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1221	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Aroclor-1232	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1242	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1248	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1254	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	L5604			L1187			L1188			L5592		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW23S			CF3MW24D			CF3MW24DD			CF3MW25S		
Collect Date:	27-MAR-94			16-MAR-94			16-MAR-94			27-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
beta-BHC	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
delta-BHC	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
gamma-BHC (Lindane)	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
Heptachlor	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
Aldrin	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
Heptachlor epoxide	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
Endosulfan I	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
Dieldrin	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1
4,4-DDE	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1
Endrin	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1
Endosulfan II	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1
4,4-DDD	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1
Endosulfan sulfate	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1
4,4-DDT	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1
Methoxychlor	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5
Endrin ketone	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1
Endrin aldehyde	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1
alpha-Chlordane	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
gamma-Chlordane	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05	.05 U	ug/l	.05
Toxaphene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Aroclor-1016	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Aroclor-1221	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Aroclor-1232	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Aroclor-1242	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Aroclor-1248	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Aroclor-1254	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Aroclor-1260	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	L5593				L2913				L5595				L0650			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW26I				CF3MW27D				CF3MW28S				CF3MW29D			
Collect Date:	27-MAR-94				21-MAR-94				27-MAR-94				15-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.01	U	ug/l	.01	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	UJ	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5	5	UJ	ug/l	5	5	U	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2	2	UJ	ug/l	2	2	U	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	L0651				L5603				L5601				L2912			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW30DD				CF3MW31S				CF3MW32D				CF3MW33DD			
Collect Date:	15-MAR-94				27-MAR-94				27-MAR-94				21-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Heptachlor	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Aldrin	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Heptachlor epoxide	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Endosulfan I	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDE	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endrin	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endosulfan II	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDD	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endosulfan sulfate	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDT	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Methoxychlor	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endrin aldehyde	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
alpha-Chlordane	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-Chlordane	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Toxaphene	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Aroclor-1016	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1221	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Aroclor-1232	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1242	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1248	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1254	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- PESTICIDES AND PCBs

	M7119				M7118			
Lab Sample Number:								
Site	CECIL8				CECIL8			
Locator	CF3MW34S				CF3MW35D			
Collect Date:	03-MAY-94				03-MAY-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW								
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

	Lab Sample Number:	L4456				L3868				L4457				L3870			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3MW1				CF3MW3S				CF3MW4S				CF3MW5S			
	Collect Date:	24-MAR-94				23-MAR-94				24-MAR-94				23-MAR-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																	
Aluminum		102	U	ug/l	200	47400	J	ug/l	200	85.8	U	ug/l	200	3130	J	ug/l	200
Antimony		19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic		1	U	ug/l	10	2.2		ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Barium		10		ug/l	200	48.1		ug/l	200	6		ug/l	200	8.8		ug/l	200
Beryllium		2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium		3	U	ug/l	5	3	U	ug/l	5	3	U	ug/l	5	3	U	ug/l	5
Calcium		185	U	ug/l	5000	21200		ug/l	5000	51300		ug/l	5000	8520		ug/l	5000
Chromium		5	UJ	ug/l	10	36.6		ug/l	10	5	UJ	ug/l	10	5.6	J	ug/l	10
Cobalt		9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50
Copper		3	UJ	ug/l	25	16.1	J	ug/l	25	73.5		ug/l	25	3	UJ	ug/l	25
Iron		201	U	ug/l	100	10200	J	ug/l	100	6130	J	ug/l	100	2800	J	ug/l	100
Lead		1	U	ug/l	3	7.6		ug/l	3	1	U	ug/l	3	1	J	ug/l	3
Magnesium		792		ug/l	5000	5730		ug/l	5000	837		ug/l	5000	6140		ug/l	5000
Manganese		3	UJ	ug/l	15	150		ug/l	15	25.7	J	ug/l	15	3.6	J	ug/l	15
Mercury		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel		12	U	ug/l	40	12.8		ug/l	40	12	U	ug/l	40	12	U	ug/l	40
Potassium		119	U	ug/l	5000	3270		ug/l	5000	860		ug/l	5000	718		ug/l	5000
Selenium		2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Silver		3	UJ	ug/l	10	3	UJ	ug/l	10	3	UJ	ug/l	10	3	UJ	ug/l	10
Sodium		4760	J	ug/l	5000	6150	J	ug/l	5000	1920	J	ug/l	5000	3990	J	ug/l	5000
Thallium		1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Vanadium		5	UJ	ug/l	50	26.5	J	ug/l	50	5	UJ	ug/l	50	5	UJ	ug/l	50
Zinc		4.6	U	ug/l	20	53.9	U	ug/l	20	25.8	U	ug/l	20	13	U	ug/l	20
Cyanide		10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

Lab Sample Number:	L3871				L3795				L3796				L3794			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW6S				CF3MW7D				CF3MW7DD				CF3MW7S			
Collect Date:	23-MAR-94				22-MAR-94				22-MAR-94				22-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	85.2	U	ug/l	200	5750	J	ug/l	200	672	J	ug/l	200	129	U	ug/l	200
Antimony	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic	7.2		ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1.5		ug/l	10
Barium	6.1		ug/l	200	13.3		ug/l	200	75.5		ug/l	200	17.4		ug/l	200
Beryllium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium	3.3	U	ug/l	5	3	U	ug/l	5	3	U	ug/l	5	3	U	ug/l	5
Calcium	30300		ug/l	5000	4300		ug/l	5000	60100		ug/l	5000	6480		ug/l	5000
Chromium	5	UJ	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10
Cobalt	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50
Copper	3	UJ	ug/l	25	3	UJ	ug/l	25	3	UJ	ug/l	25	3	UJ	ug/l	25
Iron	36500	J	ug/l	100	1720	J	ug/l	100	139	U	ug/l	100	5040	J	ug/l	100
Lead	1	U	ug/l	3	1.8		ug/l	3	1	U	ug/l	3	1	U	ug/l	3
Magnesium	1500		ug/l	5000	581		ug/l	5000	8870		ug/l	5000	2390		ug/l	5000
Manganese	50.1		ug/l	15	9.1	J	ug/l	15	10.8	J	ug/l	15	170		ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	12	U	ug/l	40	12	U	ug/l	40	12	U	ug/l	40	12	U	ug/l	40
Potassium	1900		ug/l	5000	616		ug/l	5000	4020		ug/l	5000	2660		ug/l	5000
Selenium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Silver	3	UJ	ug/l	10	3	UJ	ug/l	10	3	UJ	ug/l	10	3	UJ	ug/l	10
Sodium	5100	J	ug/l	5000	4370	J	ug/l	5000	7860	J	ug/l	5000	6920	J	ug/l	5000
Thallium	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Vanadium	5	UJ	ug/l	50	5	UJ	ug/l	50	5	UJ	ug/l	50	5	UJ	ug/l	50
Zinc	5.6	U	ug/l	20	58.3	U	ug/l	20	41.8	U	ug/l	20	7.7	U	ug/l	20
Cyanide	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

Lab Sample Number:	K9598				K9601				K9599				L0343			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW8S				CF3MW9I				CF3MW10D				CF3MW11I			
Collect Date:	11-MAR-94				11-MAR-94				11-MAR-94				14-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	15200		ug/l	200	1960		ug/l	200	49	U	ug/l	200	42.9	U	ug/l	200
Antimony	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic	1	U	ug/l	10	1	J	ug/l	10	6.6	J	ug/l	10	1	U	ug/l	10
Barium	22.2		ug/l	200	11		ug/l	200	29.8		ug/l	200	21.2		ug/l	200
Beryllium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5
Calcium	2560		ug/l	5000	918		ug/l	5000	67200		ug/l	5000	33600		ug/l	5000
Chromium	12	U	ug/l	10	5	U	ug/l	10	5	U	ug/l	10	5	U	ug/l	10
Cobalt	9	U	ug/l	50	9.9		ug/l	50	9	U	ug/l	50	9	U	ug/l	50
Copper	6.6	U	ug/l	25	3	U	ug/l	25	3	U	ug/l	25	3	U	ug/l	25
Iron	1780		ug/l	100	720		ug/l	100	97.2	UJ	ug/l	100	30.7	UJ	ug/l	100
Lead	6.3	J	ug/l	3	1	UJ	ug/l	3	1	UJ	ug/l	3	1	UJ	ug/l	3
Magnesium	1200		ug/l	5000	453	U	ug/l	5000	5620		ug/l	5000	14800		ug/l	5000
Manganese	10.7	U	ug/l	15	4.9	U	ug/l	15	49.5		ug/l	15	10.9	U	ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	19	J	ug/l	40	23	U	ug/l	40	12	U	ug/l	40	12.6	U	ug/l	40
Potassium	320	U	ug/l	5000	343	U	ug/l	5000	1960		ug/l	5000	1040		ug/l	5000
Selenium	2	J	ug/l	5	2	U	ug/l	5	2	UJ	ug/l	5	10	U	ug/l	5
Silver	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10
Sodium	8760	J	ug/l	5000	2970	J	ug/l	5000	6900	J	ug/l	5000	8140	J	ug/l	5000
Thallium	1	UJ	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10
Vanadium	6.3	U	ug/l	50	5	U	ug/l	50	5	U	ug/l	50	5	U	ug/l	50
Zinc	20.1	U	ug/l	20	11.6	U	ug/l	20	14.9	U	ug/l	20	3.2	U	ug/l	20
Cyanide	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

Lab Sample Number:	L0345				L4889				A1HHQ				L4890			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW12D				CF3MW13S				CF3MW13S				CF3MW14I			
Collect Date:	14-MAR-94				25-MAR-94				28-NOV-94				25-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	32.7	U	ug/l	200	495	J	ug/l	200	22000	J	ug/l	200	37.4	J	ug/l	200
Antimony	19	U	ug/l	60	19	U	ug/l	60	2.7	J	ug/l	60	19	U	ug/l	60
Arsenic	1	U	ug/l	10	1	U	ug/l	10	3	UJ	ug/l	10	11.5		ug/l	10
Barium	35.4		ug/l	200	24.9		ug/l	200	40.5		ug/l	200	9.1		ug/l	200
Beryllium	2	U	ug/l	5	2	U	ug/l	5	1	U	ug/l	5	2	U	ug/l	5
Cadmium	3	UJ	ug/l	5	3	UJ	ug/l	5	1	U	ug/l	5	3	UJ	ug/l	5
Calcium	66000		ug/l	5000	2590		ug/l	5000	3330		ug/l	5000	8150		ug/l	5000
Chromium	5	U	ug/l	10	5	UJ	ug/l	10	15.8		ug/l	10	5	UJ	ug/l	10
Cobalt	9.6	J	ug/l	50	9	U	ug/l	50	2	U	ug/l	50	9	U	ug/l	50
Copper	3	U	ug/l	25	6.1		ug/l	25	3.8	J	ug/l	25	3	U	ug/l	25
Iron	95.7	UJ	ug/l	100	6160	J	ug/l	100	9470		ug/l	100	427	J	ug/l	100
Lead	1	UJ	ug/l	3	1	U	ug/l	3	10.1		ug/l	5	1	U	ug/l	3
Magnesium	13100		ug/l	5000	1590		ug/l	5000	1550		ug/l	5000	247		ug/l	5000
Manganese	10.9	U	ug/l	15	19.5		ug/l	15	21.3		ug/l	15	6.7		ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	12	U	ug/l	40	12	U	ug/l	40	5.6		ug/l	40	12	U	ug/l	40
Potassium	2050		ug/l	5000	380		ug/l	5000	786		ug/l	5000	159		ug/l	5000
Selenium	2	UJ	ug/l	5	2	R	ug/l	5	4	U	ug/l	5	2	R	ug/l	5
Silver	3	U	ug/l	10	3	U	ug/l	10	1	UJ	ug/l	10	3	U	ug/l	10
Sodium	13700	J	ug/l	5000	6440		ug/l	5000	7170		ug/l	5000	7200		ug/l	5000
Thallium	1	UJ	ug/l	10	1	U	ug/l	10	6	U	ug/l	10	1	U	ug/l	10
Vanadium	5	U	ug/l	50	5	U	ug/l	50	13.8		ug/l	50	5	U	ug/l	50
Zinc	3.8	U	ug/l	20	5.2	J	ug/l	20	49	UJ	ug/l	20	2.1	J	ug/l	20
Cyanide	10	U	ug/l	10	10	UJ	ug/l	10	10	U	ug/l	10	10	UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

Lab Sample Number:	L4891				K9383				K9384				K9385			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW15D				CF3MW16S				CF3MW17D				CF3MW17DD			
Collect Date:	25-MAR-94				10-MAR-94				10-MAR-94				10-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	48.1	J	ug/l	200	9860		ug/l	200	60.3	U	ug/l	200	66.6	U	ug/l	200
Antimony	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic	24.7		ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1.2	J	ug/l	10
Barium	31.2		ug/l	200	312		ug/l	200	26.5		ug/l	200	26		ug/l	200
Beryllium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5
Calcium	60800		ug/l	5000	59500		ug/l	5000	59500		ug/l	5000	58100		ug/l	5000
Chromium	5	UJ	ug/l	10	5	U	ug/l	10	5	U	ug/l	10	5	U	ug/l	10
Cobalt	9	U	ug/l	50	11.9	J	ug/l	50	9	U	ug/l	50	9	U	ug/l	50
Copper	3	U	ug/l	25	8.8	U	ug/l	25	3.4	U	ug/l	25	3.3	U	ug/l	25
Iron	429	J	ug/l	100	16.9	UJ	ug/l	100	116	UJ	ug/l	100	133	UJ	ug/l	100
Lead	1	U	ug/l	3	3	J	ug/l	3	1	UJ	ug/l	3	1	UJ	ug/l	3
Magnesium	5640		ug/l	5000	24400		ug/l	5000	6910		ug/l	5000	6740		ug/l	5000
Manganese	49.1		ug/l	15	221		ug/l	15	75.8		ug/l	15	71.2		ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	12	U	ug/l	40	16.4	U	ug/l	40	14.7	U	ug/l	40	15	U	ug/l	40
Potassium	4600		ug/l	5000	3430		ug/l	5000	1600		ug/l	5000	1600		ug/l	5000
Selenium	2	R	ug/l	5	2	U	ug/l	5	2	UJ	ug/l	5	10	UJ	ug/l	5
Silver	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10
Sodium	9310		ug/l	5000	8950	J	ug/l	5000	8520	J	ug/l	5000	8430	J	ug/l	5000
Thallium	1	UJ	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10
Vanadium	5	U	ug/l	50	5.5	U	ug/l	50	5	U	ug/l	50	5	U	ug/l	50
Zinc	8.9	J	ug/l	20	41.4		ug/l	20	8.3	U	ug/l	20	14.7	U	ug/l	20
Cyanide	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

Lab Sample Number:	L2911			L2910			K8855			K8857		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW18S			CF3MW19D			CF3MW20S			CF3MW21I		
Collect Date:	21-MAR-94			21-MAR-94			09-MAR-94			09-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	442 J	ug/l	200	32.9 U	ug/l	200	106 U	ug/l	200	33.2 U	ug/l	200
Antimony	19 U	ug/l	60	19 U	ug/l	60	19 U	ug/l	60	19 U	ug/l	60
Arsenic	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10	3	ug/l	10
Barium	21.6	ug/l	200	35.6	ug/l	200	25.4	ug/l	200	43.2	ug/l	200
Beryllium	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5
Cadmium	3 U	ug/l	5	3 U	ug/l	5	3 UJ	ug/l	5	3 UJ	ug/l	5
Calcium	23600	ug/l	5000	69000	ug/l	5000	41900	ug/l	5000	70700	ug/l	5000
Chromium	5 UJ	ug/l	10	5 UJ	ug/l	10	5 U	ug/l	10	5 U	ug/l	10
Cobalt	9 U	ug/l	50	9 U	ug/l	50	9.5	ug/l	50	12.3	ug/l	50
Copper	3 UJ	ug/l	25	3 UJ	ug/l	25	3 U	ug/l	25	5 U	ug/l	25
Iron	255 J	ug/l	100	102 U	ug/l	100	293	ug/l	100	9 UJ	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 UJ	ug/l	3	1 UJ	ug/l	3
Magnesium	3180	ug/l	5000	11000	ug/l	5000	8540	ug/l	5000	12000	ug/l	5000
Manganese	21.6 J	ug/l	15	35.3	ug/l	15	9.2 U	ug/l	15	7.6 U	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	12 U	ug/l	40	12 U	ug/l	40	14.9 U	ug/l	40	12 U	ug/l	40
Potassium	1010	ug/l	5000	1950	ug/l	5000	1560	ug/l	5000	2080	ug/l	5000
Selenium	2 UJ	ug/l	5	2 UJ	ug/l	5	2 UJ	ug/l	5	2 U	ug/l	5
Silver	3 UJ	ug/l	10	3 UJ	ug/l	10	3 U	ug/l	10	3 U	ug/l	10
Sodium	4550 J	ug/l	5000	12400 J	ug/l	5000	10100 J	ug/l	5000	13100 J	ug/l	5000
Thallium	1 U	ug/l	10	1 U	ug/l	10	1 UJ	ug/l	10	1 UJ	ug/l	10
Vanadium	5 UJ	ug/l	50	5 UJ	ug/l	50	5 U	ug/l	50	5 U	ug/l	50
Zinc	13.1 U	ug/l	20	6.9 U	ug/l	20	8.4 U	ug/l	20	4.4 U	ug/l	20
Cyanide	10 UJ	ug/l	10	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

Lab Sample Number:	K8859				L5604				L1187				L1188			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW22D				CF3MW23S				CF3MW24D				CF3MW24DD			
Collect Date:	09-MAR-94				27-MAR-94				16-MAR-94				16-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	21.5	U	ug/l	200	5230	J	ug/l	200	19	U	ug/l	200	19	U	ug/l	200
Antimony	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic	5.3		ug/l	10	10.3		ug/l	10	10		ug/l	10	8.4		ug/l	10
Barium	48.1		ug/l	200	13		ug/l	200	46.2		ug/l	200	46.7		ug/l	200
Beryllium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5
Calcium	71300		ug/l	5000	1440		ug/l	5000	67100		ug/l	5000	67400		ug/l	5000
Chromium	5	U	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10
Cobalt	9	U	ug/l	50	14		ug/l	50	9	U	ug/l	50	9	U	ug/l	50
Copper	3	U	ug/l	25	7.2		ug/l	25	3	U	ug/l	25	3	U	ug/l	25
Iron	11.1	UJ	ug/l	100	484	J	ug/l	100	34.1	U	ug/l	100	45	U	ug/l	100
Lead	1	UJ	ug/l	3	1	U	ug/l	3	1	UJ	ug/l	3	1	UJ	ug/l	3
Magnesium	11900		ug/l	5000	567		ug/l	5000	11000		ug/l	5000	11100		ug/l	5000
Manganese	6	U	ug/l	15	4.5		ug/l	15	7.8	J	ug/l	15	7.6	J	ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	12	U	ug/l	40	12	U	ug/l	40	12	UJ	ug/l	40	12	UJ	ug/l	40
Potassium	2060		ug/l	5000	326		ug/l	5000	1950		ug/l	5000	1970		ug/l	5000
Selenium	2	U	ug/l	5	2	R	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Silver	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10
Sodium	12900	J	ug/l	5000	4780		ug/l	5000	12000		ug/l	5000	12100		ug/l	5000
Thallium	1	UJ	ug/l	10	1	U	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10
Vanadium	5	U	ug/l	50	6.6		ug/l	50	5	UJ	ug/l	50	5	UJ	ug/l	50
Zinc	4.1	U	ug/l	20	8.1	J	ug/l	20	2	U	ug/l	20	2	U	ug/l	20
Cyanide	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

Lab Sample Number:	L5592				L5593				L2913				L5595			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW25S				CF3MW26I				CF3MW27D				CF3MW28S			
Collect Date:	27-MAR-94				27-MAR-94				21-MAR-94				27-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	221	J	ug/l	200	32600	J	ug/l	200	19	U	ug/l	200	510	J	ug/l	200
Antimony	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic	1	U	ug/l	10	2		ug/l	10	1	U	ug/l	10	5.5		ug/l	10
Barium	19.1		ug/l	200	35.8		ug/l	200	40.7		ug/l	200	17.8		ug/l	200
Beryllium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium	3	UJ	ug/l	5	3	UJ	ug/l	5	3	U	ug/l	5	3	UJ	ug/l	5
Calcium	419	J	ug/l	5000	2410		ug/l	5000	64500		ug/l	5000	1440		ug/l	5000
Chromium	5	UJ	ug/l	10	24.6	J	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10
Cobalt	9	U	ug/l	50	10.4		ug/l	50	9	U	ug/l	50	9	U	ug/l	50
Copper	3	U	ug/l	25	11.5		ug/l	25	3	UJ	ug/l	25	23.8		ug/l	25
Iron	62.6	J	ug/l	100	4160	J	ug/l	100	30.3	U	ug/l	100	1640	J	ug/l	100
Lead	1	U	ug/l	3	4.3	J	ug/l	3	1	U	ug/l	3	2.6	J	ug/l	3
Magnesium	1260		ug/l	5000	1570		ug/l	5000	10200		ug/l	5000	864		ug/l	5000
Manganese	5.9		ug/l	15	14		ug/l	15	30.7	J	ug/l	15	15.9		ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	12	U	ug/l	40	12	U	ug/l	40	12	U	ug/l	40	12	U	ug/l	40
Potassium	103		ug/l	5000	1670		ug/l	5000	1790		ug/l	5000	169		ug/l	5000
Selenium	2	R	ug/l	5	5	J	ug/l	5	2	UJ	ug/l	5	2	R	ug/l	5
Silver	3	U	ug/l	10	3	U	ug/l	10	3	UJ	ug/l	10	3	U	ug/l	10
Sodium	4440		ug/l	5000	5850		ug/l	5000	11000	J	ug/l	5000	3540		ug/l	5000
Thallium	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Vanadium	5	U	ug/l	50	27.4		ug/l	50	5	UJ	ug/l	50	5	U	ug/l	50
Zinc	6.8	J	ug/l	20	24.9	J	ug/l	20	7.8	U	ug/l	20	10.1	J	ug/l	20
Cyanide	10	U	ug/l	10	10	U	ug/l	10	10	UJ	ug/l	10	10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

Lab Sample Number:	A1HHV			L0650			L0651			L5603		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW28S			CF3MW29D			CF3MW30DD			CF3MW31S		
Collect Date:	28-NOV-94			15-MAR-94			15-MAR-94			27-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	2220 J	ug/l	200	19 U	ug/l	200	22.7	ug/l	200	44.3 J	ug/l	200
Antimony	2 J	ug/l	60	19 U	ug/l	60	19 U	ug/l	60	19 U	ug/l	60
Arsenic	3 UJ	ug/l	10	2 U	ug/l	10	2 U	ug/l	10	1 U	ug/l	10
Barium	16.8	ug/l	200	44.8	ug/l	200	39.3	ug/l	200	28.5	ug/l	200
Beryllium	1 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5
Cadmium	1 U	ug/l	5	3 UJ	ug/l	5	3 UJ	ug/l	5	3 UJ	ug/l	5
Calcium	964	ug/l	5000	64900	ug/l	5000	67400	ug/l	5000	45800	ug/l	5000
Chromium	2 U	ug/l	10	5 UJ	ug/l	10	5 UJ	ug/l	10	5 UJ	ug/l	10
Cobalt	2 U	ug/l	50	9 U	ug/l	50	9 U	ug/l	50	10.7	ug/l	50
Copper	2.2	ug/l	25	3 U	ug/l	25	3 U	ug/l	25	3 U	ug/l	25
Iron	977	ug/l	100	35.7 U	ug/l	100	37.2 U	ug/l	100	54.2 J	ug/l	100
Lead	1 UJ	ug/l	5	1 UJ	ug/l	3	1 UJ	ug/l	3	1 U	ug/l	3
Magnesium	756	ug/l	5000	9960	ug/l	5000	10500	ug/l	5000	8690	ug/l	5000
Manganese	5.8	ug/l	15	5 J	ug/l	15	26.9 J	ug/l	15	4.5	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	2.8 J	ug/l	40	12 UJ	ug/l	40	12 UJ	ug/l	40	12 U	ug/l	40
Potassium	225	ug/l	5000	1780	ug/l	5000	1820	ug/l	5000	1340	ug/l	5000
Selenium	4 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5	2 R	ug/l	5
Silver	1 UJ	ug/l	10	3 U	ug/l	10	3 U	ug/l	10	3 U	ug/l	10
Sodium	3220	ug/l	5000	11400	ug/l	5000	12000	ug/l	5000	8400	ug/l	5000
Thallium	6 U	ug/l	10	1 UJ	ug/l	10	1 UJ	ug/l	10	1 U	ug/l	10
Vanadium	2.6	ug/l	50	5 UJ	ug/l	50	5 UJ	ug/l	50	5 U	ug/l	50
Zinc	45.1 UJ	ug/l	20	2 U	ug/l	20	2.7 U	ug/l	20	3.3 J	ug/l	20
Cyanide	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS AND CYANIDE (UNFILTERED)

Lab Sample Number:	L5601			L2912			M7119			M7118		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW32D			CF3MW33DD			CF3MW34S			CF3MW35D		
Collect Date:	27-MAR-94			21-MAR-94			03-MAY-94			03-MAY-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	54.4 J	ug/l	200	49.5 U	ug/l	200	290 U	ug/l	200	43.7 U	ug/l	200
Antimony	19 U	ug/l	60	19 U	ug/l	60	4.5 J	ug/l	60	9.2	ug/l	60
Arsenic	1 U	ug/l	10	1.2	ug/l	10	2 U	ug/l	10	2 U	ug/l	10
Barium	46	ug/l	200	33.4	ug/l	200	17.2	ug/l	200	40.2	ug/l	200
Beryllium	2 U	ug/l	5	2 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Cadmium	3 UJ	ug/l	5	3 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Calcium	69900	ug/l	5000	53500	ug/l	5000	20700	ug/l	5000	68300	ug/l	5000
Chromium	5 UJ	ug/l	10	5 UJ	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Cobalt	9 U	ug/l	50	9 U	ug/l	50	1 U	ug/l	50	1 U	ug/l	50
Copper	3 U	ug/l	25	3 UJ	ug/l	25	1 UJ	ug/l	25	1 UJ	ug/l	25
Iron	44.6 J	ug/l	100	35.9 U	ug/l	100	82 U	ug/l	100	82 U	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3
Magnesium	12400	ug/l	5000	9470	ug/l	5000	9330	ug/l	5000	13500	ug/l	5000
Manganese	4.2	ug/l	15	37.9	ug/l	15	12.7 U	ug/l	15	7.6 U	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	12 U	ug/l	40	12 U	ug/l	40	2 U	ug/l	40	2 U	ug/l	40
Potassium	2090	ug/l	5000	1850	ug/l	5000	432	ug/l	5000	1180	ug/l	5000
Selenium	2 R	ug/l	5	2 UJ	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Silver	3 U	ug/l	10	3 UJ	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Sodium	13100	ug/l	5000	9010 J	ug/l	5000	4380 J	ug/l	5000	13500 J	ug/l	5000
Thallium	1 U	ug/l	10	1 U	ug/l	10	1 UJ	ug/l	10	1 UJ	ug/l	10
Vanadium	5 U	ug/l	50	5 UJ	ug/l	50	1 UJ	ug/l	50	1 UJ	ug/l	50
Zinc	2 U	ug/l	20	12.1 U	ug/l	20	3.8 UJ	ug/l	20	5.5 UJ	ug/l	20
Cyanide	10 U	ug/l	10	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

Lab Sample Number:	L4456F			L3868F			L4457F			L3870F		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW1F			CF3MW3SF			CF3MW4SF			CF3MW5SF		
Collect Date:	24-MAR-94			23-MAR-94			24-MAR-94			23-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	92.9 U	ug/l	200	81.7 U	ug/l	200	29.6 U	ug/l	200	180 U	ug/l	200
Antimony	19 U	ug/l	60	19 U	ug/l	60	19 U	ug/l	60	19 U	ug/l	60
Arsenic	1 U	ug/l	10	1 U	ug/l	10	1.4	ug/l	10	1 U	ug/l	10
Barium	9.3	ug/l	200	16.8	ug/l	200	4.6	ug/l	200	6.5	ug/l	200
Beryllium	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5
Cadmium	3 U	ug/l	5	3 U	ug/l	5	3 U	ug/l	5	3 U	ug/l	5
Calcium	108 U	ug/l	5000	20000	ug/l	5000	51700	ug/l	5000	8380	ug/l	5000
Chromium	5.3 UJ	ug/l	10	5 UJ	ug/l	10	5 UJ	ug/l	10	5 UJ	ug/l	10
Cobalt	9 U	ug/l	50	9 U	ug/l	50	9 U	ug/l	50	9 U	ug/l	50
Copper	3 UJ	ug/l	25	3 UJ	ug/l	25	3 UJ	ug/l	25	3 UJ	ug/l	25
Iron	249	ug/l	100	3740	ug/l	100	5860	ug/l	100	2190	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3
Magnesium	684	ug/l	5000	4570	ug/l	5000	781	ug/l	5000	5590	ug/l	5000
Manganese	3 UJ	ug/l	15	130	ug/l	15	23.7 J	ug/l	15	6.7 J	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	12 U	ug/l	40	12 U	ug/l	40	12 U	ug/l	40	12 U	ug/l	40
Potassium	92 U	ug/l	5000	2240	ug/l	5000	778	ug/l	5000	634	ug/l	5000
Selenium	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5
Silver	3 UJ	ug/l	10	3 UJ	ug/l	10	3 UJ	ug/l	10	3 UJ	ug/l	10
Sodium	4480	ug/l	5000	4570	ug/l	5000	1960	ug/l	5000	2910	ug/l	5000
Thallium	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Vanadium	5 UJ	ug/l	50	5 UJ	ug/l	50	5 UJ	ug/l	50	5 UJ	ug/l	50
Zinc	5.4 U	ug/l	20	10.9 U	ug/l	20	28.6 U	ug/l	20	25.9 U	ug/l	20
Cyanide	-			-			-			-		

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

Lab Sample Number:		L3871F				L3796F				L3795F				L3794F			
Site		CECIL8				CECIL8				CECIL8				CECIL8			
Locator		CF3MW6SF				CF3MW7DDF				CF3MW7DF				CF3MW7SF			
Collect Date:		23-MAR-94				22-MAR-94				22-MAR-94				22-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	
CLP METALS AND CYANIDE																	
Aluminum	54.7	U	ug/l	200	71.6	U	ug/l	200	57	U	ug/l	200	119	U	ug/l	200	
Antimony	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	
Arsenic	7		ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	
Barium	6.1		ug/l	200	46.8		ug/l	200	6.2		ug/l	200	19.2		ug/l	200	
Beryllium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	
Cadmium	3	U	ug/l	5	3	U	ug/l	5	3	U	ug/l	5	3	U	ug/l	5	
Calcium	28200		ug/l	5000	52600		ug/l	5000	3300		ug/l	5000	6510		ug/l	5000	
Chromium	5	UJ	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10	
Cobalt	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50	
Copper	3	UJ	ug/l	25	3	UJ	ug/l	25	3	UJ	ug/l	25	3	UJ	ug/l	25	
Iron	35800		ug/l	100	40.5	U	ug/l	100	169	U	ug/l	100	4710		ug/l	100	
Lead	1	U	ug/l	3	1	U	ug/l	3	1	U	ug/l	3	1	U	ug/l	3	
Magnesium	1420		ug/l	5000	5360		ug/l	5000	289		ug/l	5000	2500		ug/l	5000	
Manganese	47.7		ug/l	15	9.2	J	ug/l	15	6.7	J	ug/l	15	163		ug/l	15	
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	
Nickel	12	U	ug/l	40	12	U	ug/l	40	12	U	ug/l	40	12	U	ug/l	40	
Potassium	1760		ug/l	5000	4070		ug/l	5000	252	U	ug/l	5000	2900		ug/l	5000	
Selenium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	
Silver	3	UJ	ug/l	10	3	UJ	ug/l	10	3	UJ	ug/l	10	3	UJ	ug/l	10	
Sodium	4360		ug/l	5000	7820		ug/l	5000	3160		ug/l	5000	7390		ug/l	5000	
Thallium	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	
Vanadium	5	UJ	ug/l	50	5	UJ	ug/l	50	5	UJ	ug/l	50	5	UJ	ug/l	50	
Zinc	10.4	U	ug/l	20	38.2	U	ug/l	20	58.1	U	ug/l	20	11	U	ug/l	20	
Cyanide	-				-				-				-				

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

	K9598F				K9601F				K9599F				L0343F			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW8SF				CF3MW9IF				CF3MW10DF				CF3MW11IF			
Collect Date:	11-MAR-94				11-MAR-94				11-MAR-94				14-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	205	U	ug/l	200	66.6	U	ug/l	200	44.1	U	ug/l	200	21.9	U	ug/l	200
Antimony	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic	1	UJ	ug/l	10	1	U	ug/l	10	6.6	J	ug/l	10	1		ug/l	10
Barium	8.8		ug/l	200	7.2		ug/l	200	29.6		ug/l	200	19.8		ug/l	200
Beryllium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium	3	U	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5
Calcium	977		ug/l	5000	769		ug/l	5000	66500		ug/l	5000	32600		ug/l	5000
Chromium	5	U	ug/l	10	5	U	ug/l	10	5	U	ug/l	10	5	U	ug/l	10
Cobalt	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50
Copper	3	U	ug/l	25	3	U	ug/l	25	3	U	ug/l	25	3	U	ug/l	25
Iron	155	UJ	ug/l	100	200		ug/l	100	71.9	UJ	ug/l	100	14.2	UJ	ug/l	100
Lead	1	UJ	ug/l	3	1	UJ	ug/l	3	1	UJ	ug/l	3	1	UJ	ug/l	3
Magnesium	1020		ug/l	5000	320	U	ug/l	5000	5530		ug/l	5000	14300		ug/l	5000
Manganese	4.9	U	ug/l	15	3.1	U	ug/l	15	52.2		ug/l	15	11.6	U	ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	15.5	U	ug/l	40	13	U	ug/l	40	12	U	ug/l	40	12.6	U	ug/l	40
Potassium	92	U	ug/l	5000	214	U	ug/l	5000	1920		ug/l	5000	946		ug/l	5000
Selenium	2	U	ug/l	5	2	UJ	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Silver	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10
Sodium	7850		ug/l	5000	2700		ug/l	5000	6830		ug/l	5000	7860		ug/l	5000
Thallium	1	UJ	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10
Vanadium	5	U	ug/l	50	5	U	ug/l	50	5	U	ug/l	50	5	U	ug/l	50
Zinc	4.4	UJ	ug/l	20	12.9	UJ	ug/l	20	18.1	UJ	ug/l	20	36.5	UJ	ug/l	20
Cyanide	-				-				-				-			

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

Lab Sample Number:	L0345F				L4889F				A1HHQF				L4890F				
Site	CECIL8				CECIL8				CECIL8				CECIL8				
Locator	CF3MW12DF				CF3MW13SF				CF3MW13SF				CF3MW14IF				
Collect Date:	14-MAR-94				25-MAR-94				28-NOV-94				25-MAR-94				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	
CLP METALS AND CYANIDE																	
Aluminum	22.6	U	ug/l	200	473		ug/l	200	2280		ug/l	200	876		ug/l	200	
Antimony	19	U	ug/l	60	19	U	ug/l	60	6		ug/l	60	19	U	ug/l	60	
Arsenic	1	U	ug/l	10	1	U	ug/l	10	3	UJ	ug/l	10	11.7		ug/l	10	
Barium	33.1		ug/l	200	23.6		ug/l	200	24.2		ug/l	200	12.2		ug/l	200	
Beryllium	2	U	ug/l	5	2	U	ug/l	5	1	U	ug/l	5	2	U	ug/l	5	
Cadmium	3	UJ	ug/l	5	3	UJ	ug/l	5	1	U	ug/l	5	3	UJ	ug/l	5	
Calcium	62400		ug/l	5000	2370		ug/l	5000	3340		ug/l	5000	9330		ug/l	5000	
Chromium	5	U	ug/l	10	5	UJ	ug/l	10	2	U	ug/l	10	5	UJ	ug/l	10	
Cobalt	9	U	ug/l	50	9	U	ug/l	50	2	U	ug/l	50	9	U	ug/l	50	
Copper	3	U	ug/l	25	5.8		ug/l	25	2	U	ug/l	25	6.1		ug/l	25	
Iron	84	UJ	ug/l	100	5850	J	ug/l	100	5780		ug/l	100	903	J	ug/l	100	
Lead	1	UJ	ug/l	3	1.2		ug/l	3	1	UJ	ug/l	5	1	U	ug/l	3	
Magnesium	12500		ug/l	5000	1480		ug/l	5000	1210		ug/l	5000	326		ug/l	5000	
Manganese	11	U	ug/l	15	16.4		ug/l	15	14.2		ug/l	15	8		ug/l	15	
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	
Nickel	12	U	ug/l	40	12	U	ug/l	40	2	U	ug/l	40	12	U	ug/l	40	
Potassium	1940		ug/l	5000	386		ug/l	5000	430		ug/l	5000	259		ug/l	5000	
Selenium	2	UJ	ug/l	5	2	U	ug/l	5	4	U	ug/l	5	2	U	ug/l	5	
Silver	3	U	ug/l	10	3	U	ug/l	10	1	UJ	ug/l	10	3	U	ug/l	10	
Sodium	13000		ug/l	5000	6050		ug/l	5000	5460		ug/l	5000	8140		ug/l	5000	
Thallium	1	UJ	ug/l	10	1	U	ug/l	10	6	U	ug/l	10	1	U	ug/l	10	
Vanadium	5	U	ug/l	50	5	U	ug/l	50	1.9	J	ug/l	50	5	U	ug/l	50	
Zinc	7.5	UJ	ug/l	20	15	J	ug/l	20	52.8	UJ	ug/l	20	38.5	J	ug/l	20	
Cyanide	-				-				-				-				

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

Lab Sample Number:	L4891F				K9383F				K9385F				K9384F			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW15DF				CF3MW16SF				CF3MW17DDF				CF3MW17DF			
Collect Date:	25-MAR-94				10-MAR-94				10-MAR-94				10-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	60	J	ug/l	200	7780		ug/l	200	31.1	U	ug/l	200	40.5	U	ug/l	200
Antimony	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic	26.4		ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1.1		ug/l	10
Barium	30.7		ug/l	200	243		ug/l	200	26.3		ug/l	200	26.8		ug/l	200
Beryllium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5
Calcium	61900		ug/l	5000	45900		ug/l	5000	60300		ug/l	5000	60100		ug/l	5000
Chromium	5	UJ	ug/l	10	5	U	ug/l	10	5	U	ug/l	10	5	U	ug/l	10
Cobalt	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50
Copper	3	U	ug/l	25	3	U	ug/l	25	3	U	ug/l	25	3	U	ug/l	25
Iron	155	J	ug/l	100	9	UJ	ug/l	100	112	UJ	ug/l	100	101	UJ	ug/l	100
Lead	1	U	ug/l	3	1.8	J	ug/l	3	1	UJ	ug/l	3	1	UJ	ug/l	3
Magnesium	5590		ug/l	5000	19800		ug/l	5000	6980		ug/l	5000	6980		ug/l	5000
Manganese	50.6		ug/l	15	169		ug/l	15	73.5		ug/l	15	71.7		ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	12	U	ug/l	40	18.3	U	ug/l	40	20.4	U	ug/l	40	12	U	ug/l	40
Potassium	3560		ug/l	5000	2630		ug/l	5000	1590		ug/l	5000	1590		ug/l	5000
Selenium	2	UJ	ug/l	5	2	U	ug/l	5	2	UJ	ug/l	5	2	U	ug/l	5
Silver	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10
Sodium	8230		ug/l	5000	7420		ug/l	5000	8540		ug/l	5000	8630		ug/l	5000
Thallium	1	U	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10
Vanadium	5	U	ug/l	50	5	U	ug/l	50	5	U	ug/l	50	5	U	ug/l	50
Zinc	2.9	J	ug/l	20	34.5	UJ	ug/l	20	5	UJ	ug/l	20	3.4	UJ	ug/l	20
Cyanide	-				-				-				-			

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

Lab Sample Number:	L2911F			L2910F			K8855F			K8857F		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW18SF			CF3MW19DF			CF3MW20SF			CF3MW21IF		
Collect Date:	21-MAR-94			21-MAR-94			09-MAR-94			09-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	19 U	ug/l	200	19 U	ug/l	200	26.5 U	ug/l	200	25.8 U	ug/l	200
Antimony	19 U	ug/l	60	19 U	ug/l	60	19 U	ug/l	60	19 U	ug/l	60
Arsenic	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10	3	ug/l	10
Barium	20.2	ug/l	200	32.3	ug/l	200	25.6	ug/l	200	40.2	ug/l	200
Beryllium	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5
Cadmium	3 U	ug/l	5	3 U	ug/l	5	3 UJ	ug/l	5	3 UJ	ug/l	5
Calcium	22400	ug/l	5000	65200	ug/l	5000	42600	ug/l	5000	65700	ug/l	5000
Chromium	5 UJ	ug/l	10	5 UJ	ug/l	10	5 U	ug/l	10	5 U	ug/l	10
Cobalt	9 U	ug/l	50	9 U	ug/l	50	9 U	ug/l	50	9 U	ug/l	50
Copper	3 UJ	ug/l	25	3 UJ	ug/l	25	3 U	ug/l	25	6 U	ug/l	25
Iron	102 U	ug/l	100	89.3 U	ug/l	100	42.2 UJ	ug/l	100	9 UJ	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 UJ	ug/l	3	1 UJ	ug/l	3
Magnesium	3020	ug/l	5000	10400	ug/l	5000	8750	ug/l	5000	11200	ug/l	5000
Manganese	23.4 J	ug/l	15	31.5 J	ug/l	15	7.7 U	ug/l	15	6.8 U	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	12 U	ug/l	40	12 U	ug/l	40	12 U	ug/l	40	12 U	ug/l	40
Potassium	962	ug/l	5000	1800	ug/l	5000	1610	ug/l	5000	1950	ug/l	5000
Selenium	2 UJ	ug/l	5	2 UJ	ug/l	5	2 U	ug/l	5	2 UJ	ug/l	5
Silver	3 UJ	ug/l	10	3 UJ	ug/l	10	3 U	ug/l	10	3 U	ug/l	10
Sodium	4370	ug/l	5000	11700	ug/l	5000	10400	ug/l	5000	12300	ug/l	5000
Thallium	1 U	ug/l	10	1 U	ug/l	10	1 UJ	ug/l	10	1 UJ	ug/l	10
Vanadium	5 UJ	ug/l	50	5 UJ	ug/l	50	5 U	ug/l	50	5 U	ug/l	50
Zinc	14 U	ug/l	20	3.8 U	ug/l	20	6.6 UJ	ug/l	20	3.9 UJ	ug/l	20
Cyanide	-			-			-			-		

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

Lab Sample Number:		K8859F				L5604F				L1188F				L1187F		
Site		CECIL8				CECIL8				CECIL8				CECIL8		
Locator		CF3MW22DF				CF3MW23SF				CF3MW24DDF				CF3MW24DF		
Collect Date:		09-MAR-94				27-MAR-94				16-MAR-94				16-MAR-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	30.5	U	ug/l	200	48		ug/l	200	19	U	ug/l	200	19	U	ug/l	200
Antimony	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic	5.5		ug/l	10	11.5		ug/l	10	8.1		ug/l	10	9.4		ug/l	10
Barium	47.4		ug/l	200	9.3		ug/l	200	44.2		ug/l	200	47.5		ug/l	200
Beryllium	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5
Calcium	70300		ug/l	5000	644	J	ug/l	5000	63700		ug/l	5000	68800		ug/l	5000
Chromium	5	U	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10
Cobalt	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50	9	U	ug/l	50
Copper	7.7	U	ug/l	25	3	U	ug/l	25	3	U	ug/l	25	3	U	ug/l	25
Iron	27.8	UJ	ug/l	100	238	J	ug/l	100	42.9	U	ug/l	100	32.2	U	ug/l	100
Lead	1	UJ	ug/l	3	1	U	ug/l	3	1	UJ	ug/l	3	1	UJ	ug/l	3
Magnesium	11800		ug/l	5000	367		ug/l	5000	10500		ug/l	5000	11300		ug/l	5000
Manganese	7.6	U	ug/l	15	3.1		ug/l	15	7.3	J	ug/l	15	7.1	J	ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	12	U	ug/l	40	12	U	ug/l	40	12	UJ	ug/l	40	12	UJ	ug/l	40
Potassium	2050		ug/l	5000	142		ug/l	5000	1860		ug/l	5000	2000		ug/l	5000
Selenium	2	UJ	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Silver	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10
Sodium	13000		ug/l	5000	3570		ug/l	5000	11400		ug/l	5000	12300		ug/l	5000
Thallium	1	UJ	ug/l	10	1	U	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10
Vanadium	5	U	ug/l	50	5	U	ug/l	50	5	UJ	ug/l	50	5	UJ	ug/l	50
Zinc	6.2	UJ	ug/l	20	3.3	J	ug/l	20	5.2	U	ug/l	20	2.6	U	ug/l	20
Cyanide	-				-				-				-			

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

Lab Sample Number:	L5592F			L5593F			L2913F			L5595F		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW25SF			CF3MW26IF			CF3MW27DF			CF3MW28SF		
Collect Date:	27-MAR-94			27-MAR-94			21-MAR-94			27-MAR-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	207 J	ug/l	200	130 J	ug/l	200	19 U	ug/l	200	156 J	ug/l	200
Antimony	19 U	ug/l	60	19 U	ug/l	60	19 U	ug/l	60	19 U	ug/l	60
Arsenic	1 U	ug/l	10	1.7	ug/l	10	1 U	ug/l	10	5.2	ug/l	10
Barium	17.4	ug/l	200	8.3	ug/l	200	40.2	ug/l	200	17	ug/l	200
Beryllium	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5	2 U	ug/l	5
Cadmium	3 UJ	ug/l	5	3 UJ	ug/l	5	3 U	ug/l	5	3 UJ	ug/l	5
Calcium	348 J	ug/l	5000	830 J	ug/l	5000	64300	ug/l	5000	800 J	ug/l	5000
Chromium	5 UJ	ug/l	10	5 UJ	ug/l	10	5 UJ	ug/l	10	5 UJ	ug/l	10
Cobalt	9 U	ug/l	50	9 U	ug/l	50	9 U	ug/l	50	9 U	ug/l	50
Copper	3 U	ug/l	25	3 U	ug/l	25	3 UJ	ug/l	25	24.8	ug/l	25
Iron	39.8 J	ug/l	100	129 J	ug/l	100	18.5 U	ug/l	100	1620 J	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3	4 J	ug/l	3
Magnesium	1160	ug/l	5000	473	ug/l	5000	10100	ug/l	5000	843	ug/l	5000
Manganese	4.3	ug/l	15	3 U	ug/l	15	12.1 J	ug/l	15	11.1	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	12 U	ug/l	40	12 U	ug/l	40	12 U	ug/l	40	12 U	ug/l	40
Potassium	92 U	ug/l	5000	238	ug/l	5000	1750	ug/l	5000	165	ug/l	5000
Selenium	2 U	ug/l	5	2 U	ug/l	5	2 UJ	ug/l	5	2 U	ug/l	5
Silver	3 U	ug/l	10	3 U	ug/l	10	3 UJ	ug/l	10	3 U	ug/l	10
Sodium	4130	ug/l	5000	4620	ug/l	5000	10900	ug/l	5000	2650	ug/l	5000
Thallium	1 U	ug/l	10	1 UJ	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Vanadium	5 U	ug/l	50	5 U	ug/l	50	5 UJ	ug/l	50	5 U	ug/l	50
Zinc	2.4 J	ug/l	20	2 U	ug/l	20	17 U	ug/l	20	24.5 J	ug/l	20
Cyanide	-			-			-			-		

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

Lab Sample Number:	A1HHVF				L0650F				L0651F				L5603F				
Site	CECIL8				CECIL8				CECIL8				CECIL8				
Locator	CF3MW28SF				CF3MW29DF				CF3MW30DDF				CF3MW31SF				
Collect Date:	28-NOV-94				15-MAR-94				15-MAR-94				27-MAR-94				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	1650		ug/l	200	19	U	ug/l	200	24.5		ug/l	200	37.4	J	ug/l	200
Antimony	10.4		ug/l	60	19	U	ug/l	60	19	U	ug/l	60	19	U	ug/l	60
Arsenic	3	UJ	ug/l	10	2	U	ug/l	10	2	U	ug/l	10	1	U	ug/l	10
Barium	15.4		ug/l	200	40.4		ug/l	200	35.4		ug/l	200	30.1		ug/l	200
Beryllium	1	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Cadmium	1	U	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5	3	UJ	ug/l	5
Calcium	1060		ug/l	5000	61800		ug/l	5000	62800		ug/l	5000	48200		ug/l	5000
Chromium	2	U	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10	5	UJ	ug/l	10
Cobalt	2	U	ug/l	50	9.3	U	ug/l	50	10.8	U	ug/l	50	9	U	ug/l	50
Copper	2.2		ug/l	25	3	U	ug/l	25	4.7	U	ug/l	25	3	U	ug/l	25
Iron	783		ug/l	100	33.2	U	ug/l	100	9	U	ug/l	100	53.1	J	ug/l	100
Lead	1	UJ	ug/l	5	1	UJ	ug/l	3	1	UJ	ug/l	3	1	U	ug/l	3
Magnesium	727		ug/l	5000	9490		ug/l	5000	9780		ug/l	5000	9160		ug/l	5000
Manganese	6	U	ug/l	15	4.3	J	ug/l	15	25.5	J	ug/l	15	4.8		ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	2	U	ug/l	40	12	UJ	ug/l	40	12	UJ	ug/l	40	12	U	ug/l	40
Potassium	211		ug/l	5000	1650		ug/l	5000	1700		ug/l	5000	1410		ug/l	5000
Selenium	4	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5	2	U	ug/l	5
Silver	1	UJ	ug/l	10	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10
Sodium	3600		ug/l	5000	10800		ug/l	5000	11400		ug/l	5000	8930		ug/l	5000
Thallium	6	U	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10	1	U	ug/l	10
Vanadium	1.3	J	ug/l	50	5	UJ	ug/l	50	5	UJ	ug/l	50	5	U	ug/l	50
Zinc	48.1	UJ	ug/l	20	5.8	U	ug/l	20	6	U	ug/l	20	2	U	ug/l	20
Cyanide	-				-				-				-			

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- METALS (FILTERED)

	Lab Sample Number:	L5601F				L2912F				M7119F				M7118F			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3MW32DF				CF3MW33DDF				CF3MW34SF				CF3MW35DF			
	Collect Date:	27-MAR-94				21-MAR-94				03-MAY-94				03-MAY-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																	
Aluminum		109	J	ug/l	200	38.9	U	ug/l	200	234	U	ug/l	200	47.9	U	ug/l	200
Antimony		19	U	ug/l	60	19	U	ug/l	60	4.3		ug/l	60	6.3		ug/l	60
Arsenic		1	U	ug/l	10	2		ug/l	10	2	U	ug/l	10	2	U	ug/l	10
Barium		43.7		ug/l	200	32.2		ug/l	200	17.7		ug/l	200	39.1		ug/l	200
Beryllium		2	U	ug/l	5	2	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Cadmium		3	UJ	ug/l	5	3	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Calcium		67200		ug/l	5000	51800		ug/l	5000	21700		ug/l	5000	67900		ug/l	5000
Chromium		5	UJ	ug/l	10	5	UJ	ug/l	10	1	J	ug/l	10	1	U	ug/l	10
Cobalt		9	U	ug/l	50	9	U	ug/l	50	1	U	ug/l	50	1	U	ug/l	50
Copper		3	U	ug/l	25	3	UJ	ug/l	25	1	UJ	ug/l	25	1	UJ	ug/l	25
Iron		20.9	J	ug/l	100	18	U	ug/l	100	82	U	ug/l	100	82	U	ug/l	100
Lead		1	U	ug/l	3	1	U	ug/l	3	1.6		ug/l	3	1	U	ug/l	3
Magnesium		11900		ug/l	5000	9280		ug/l	5000	9730		ug/l	5000	13400		ug/l	5000
Manganese		3	U	ug/l	15	41.6		ug/l	15	13.3	U	ug/l	15	7.6	U	ug/l	15
Mercury		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel		12	U	ug/l	40	12	U	ug/l	40	2	U	ug/l	40	2	U	ug/l	40
Potassium		1980		ug/l	5000	1870		ug/l	5000	454		ug/l	5000	1230		ug/l	5000
Selenium		2	UJ	ug/l	5	2	UJ	ug/l	5	1	U	ug/l	5	1	UJ	ug/l	5
Silver		3	U	ug/l	10	3	UJ	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Sodium		12400		ug/l	5000	8810		ug/l	5000	4880	J	ug/l	5000	13400	J	ug/l	5000
Thallium		1	U	ug/l	10	1	U	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10
Vanadium		5	U	ug/l	50	5	UJ	ug/l	50	1	UJ	ug/l	50	1	UJ	ug/l	50
Zinc		2	U	ug/l	20	14.2	U	ug/l	20	5.5	UJ	ug/l	20	2.4	UJ	ug/l	20
Cyanide		-				-				-				-			

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

	Lab Sample Number:	L4432				L3755				L4436				L3757			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3MW1				CF3MW3S				CF3MW4S				CF3MW5S			
	Collect Date:	24-MAR-94				23-MAR-94				24-MAR-94				23-MAR-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate		5	U	mg/l	5	78		mg/l	5	130		mg/l	5	65		mg/l	5
Alkalinity, Carbonate		5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5
Alkalinity, Total		20	U	mg/l	20	78		mg/l	20	130		mg/l	20	65		mg/l	20
Chloride		7	J	mg/l	2	6	J	mg/l	2	3	J	mg/l	2	11	J	mg/l	2
Hardness		5	U	mg/l	5	68		mg/l	5	120		mg/l	5	72		mg/l	5
Hexavalent Chromium		.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02
Sulfate		5	UJ	mg/l	5	13	J	mg/l	5	5	UJ	mg/l	5	19	J	mg/l	5
Sulfide		1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1
Total Dissolved Solids		43		mg/l	10	150		mg/l	10	200		mg/l	10	160		mg/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

Lab Sample Number:	L3758				L3740				L3742				L3737					
Site	CECIL8				CECIL8				CECIL8				CECIL8					
Locator	CF3MW6S				CF3MW7D				CF3MW7DD				CF3MW7S					
Collect Date:	23-MAR-94				22-MAR-94				22-MAR-94				22-MAR-94					
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Alkalinity, Bicarbonate	130		mg/l	5	6.3		mg/l	5	220		mg/l	5	13		mg/l	5		
Alkalinity, Carbonate	5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5		
Alkalinity, Total	130		mg/l	20	20	U	mg/l	20	220		mg/l	20	20	U	mg/l	20		
Chloride	3	J	mg/l	2	4	J	mg/l	2	5	J	mg/l	2	9	J	mg/l	2		
Hardness	92		mg/l	5	14		mg/l	5	150		mg/l	5	34		mg/l	5		
Hexavalent Chromium	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02		
Sulfate	5	UJ	mg/l	5	5	UJ	mg/l	5	5	J	mg/l	5	8	J	mg/l	5		
Sulfide	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1		
Total Dissolved Solids	200		mg/l	10	70		mg/l	10	260		mg/l	10	110		mg/l	10		

U = NOT DETECTED J = ESTIMATED VALUE
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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

Lab Sample Number:	K9568					K9570					K9569					L0319			
Site	CECIL8					CECIL8					CECIL8					CECIL8			
Locator	CF3MW8S					CF3MW9I					CF3MW10D					CF3MW11I			
Collect Date:	11-MAR-94					11-MAR-94					11-MAR-94					14-MAR-94			
	VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	6.3		mg/l	5		5	U	mg/l	5		210		mg/l	5		150		mg/l	5
Alkalinity, Carbonate	5	U	mg/l	5		5	U	mg/l	5		5	U	mg/l	5		5	U	mg/l	5
Alkalinity, Total	20	U	mg/l	20		20	U	mg/l	20		210		mg/l	20		150		mg/l	20
Chloride	43	J	mg/l	2		3	J	mg/l	2		4	J	mg/l	2		7	J	mg/l	2
Hardness	25	U	mg/l	25		5	U	mg/l	5		190		mg/l	5		140		mg/l	5
Hexavalent Chromium	.02	U	mg/l	.02		.02	U	mg/l	.02		.02	U	mg/l	.02		.02	U	mg/l	.02
Sulfate	300	J	mg/l	20		5	UJ	mg/l	5		5	UJ	mg/l	5		5	UJ	mg/l	5
Sulfide	1	U	mg/l	1		1	U	mg/l	1		1	U	mg/l	1		1	U	mg/l	1
Total Dissolved Solids	140		mg/l	10		17		mg/l	10		240		mg/l	10		160		mg/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

	Lab Sample Number:	L0326				L4884				A1HHJ				L4885			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3MW12D				CF3MW13S				CF3MW13S				CF3MW14I			
	Collect Date:	14-MAR-94				25-MAR-94				28-NOV-94				25-MAR-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate		280		mg/l	5	6.3		mg/l	5	10		mg/l	10	38		mg/l	5
Alkalinity, Carbonate		5	U	mg/l	5	5	U	mg/l	5	10	U	mg/l	10	5	U	mg/l	5
Alkalinity, Total		280		mg/l	20	20	U	mg/l	20	10		mg/l	10	38		mg/l	20
Chloride		9	J	mg/l	2	16	J	mg/l	2	15	J	mg/l	2	9	J	mg/l	2
Hardness		220		mg/l	5	68		mg/l	5	54		mg/l	5	70		mg/l	5
Hexavalent Chromium		.02	U	mg/l	.02	.02	UJ	mg/l	.02	1	U	mg/l	1	.02	UJ	mg/l	.02
Sulfate		5	UJ	mg/l	5	6	J	mg/l	5	5	U	mg/l	5	5	UJ	mg/l	5
Sulfide		1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1
Total Dissolved Solids		290		mg/l	10	68		mg/l	10	56		mg/l	10	10	U	mg/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

	Lab Sample Number:	L4886				K9349				K9353				K9354			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3MW15D				CF3MW16S				CF3MW17D				CF3MW17DD			
	Collect Date:	25-MAR-94				10-MAR-94				10-MAR-94				10-MAR-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate		210		mg/l	5	5	U	mg/l	5	200		mg/l	5	200		mg/l	5
Alkalinity, Carbonate		5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5
Alkalinity, Total		210		mg/l	20	20	U	mg/l	20	200		mg/l	20	200		mg/l	20
Chloride		4	J	mg/l	2	10	J	mg/l	2	4	J	mg/l	2	5	J	mg/l	2
Hardness		170		mg/l	5	240		mg/l	5	180		mg/l	5	170		mg/l	5
Hexavalent Chromium		.02	UJ	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02
Sulfate		5	UJ	mg/l	5	5	UJ	mg/l	5	5	UJ	mg/l	5	5	UJ	mg/l	5
Sulfide		1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1
Total Dissolved Solids		240		mg/l	10	510		mg/l	10	230		mg/l	10	240		mg/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

Lab Sample Number:		L2884				L2883				K8810				K8811				
Site		CECIL8				CECIL8				CECIL8				CECIL8				
Locator		CF3MW18S				CF3MW19D				CF3MW20S				CF3MW21I				
Collect Date:		21-MAR-94				21-MAR-94				09-MAR-94				09-MAR-94				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Alkalinity, Bicarbonate	71		mg/l	5	250		mg/l	5	160		mg/l	5	250		mg/l	5		
Alkalinity, Carbonate	5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5	8.2		mg/l	5		
Alkalinity, Total	71		mg/l	20	250		mg/l	20	160		mg/l	20	250		mg/l	20		
Chloride	4	J	mg/l	2	7	J	mg/l	2	7	J	mg/l	2	9	J	mg/l	2		
Hardness	66		mg/l	5	220		mg/l	5	130		mg/l	5	220		mg/l	5		
Hexavalent Chromium	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02		
Sulfate	5	UJ	mg/l	5	5	UJ	mg/l	5	5	UJ	mg/l	5	5	UJ	mg/l	5		
Sulfide	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1		
Total Dissolved Solids	110		mg/l	10	260		mg/l	10	180		mg/l	10	270		mg/l	10		

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

	Lab Sample Number:	K8813				L5551				L1185				L1186			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3MW22D				CF3MW23S				CF3MW24D				CF3MW24DD			
	Collect Date:	09-MAR-94				28-MAR-94				16-MAR-94				16-MAR-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate		240		mg/l	5	5	U	mg/l	5	240		mg/l	5	250		mg/l	5
Alkalinity, Carbonate		5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5
Alkalinity, Total		240		mg/l	20	20	U	mg/l	20	240		mg/l	20	250		mg/l	20
Chloride		9	J	mg/l	2	8	J	mg/l	2	9		mg/l	2	9		mg/l	2
Hardness		210		mg/l	5	5	U	mg/l	5	220		mg/l	5	220		mg/l	5
Hexavalent Chromium		.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02
Sulfate		5	UJ	mg/l	5	5	UJ	mg/l	5	5	UJ	mg/l	5	5	UJ	mg/l	5
Sulfide		1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1
Total Dissolved Solids		300		mg/l	10	130		mg/l	10	300		mg/l	10	310		mg/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

	Lab Sample Number:	L5540				L5544				L2887				L5546			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3MW25S				CF3MW26I				CF3MW27D				CF3MW28S			
	Collect Date:	27-MAR-94				27-MAR-94				21-MAR-94				27-MAR-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate		5	U	mg/l	5	5	U	mg/l	5	250		mg/l	5	5	U	mg/l	5
Alkalinity, Carbonate		5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5
Alkalinity, Total		20	U	mg/l	20	20	U	mg/l	20	250		mg/l	20	20	U	mg/l	20
Chloride		69	J	mg/l	2	13	J	mg/l	2	7	J	mg/l	2	4	J	mg/l	2
Hardness		5	U	mg/l	5	5	U	mg/l	5	210		mg/l	5	8		mg/l	5
Hexavalent Chromium		.02	UJ	mg/l	.02	.02	UJ	mg/l	.02	.02	U	mg/l	.02	.02	UJ	mg/l	.02
Sulfate		5	UJ	mg/l	5	14	J	mg/l	5	5	UJ	mg/l	5	6	J	mg/l	5
Sulfide		1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1
Total Dissolved Solids		45		mg/l	10	240		mg/l	10	260		mg/l	10	53		mg/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

Lab Sample Number:		A1HHK				L0645				L0646				L5550				
Site		CECIL8				CECIL8				CECIL8				CECIL8				
Locator		CF3MW28S				CF3MW29D				CF3MW30DD				CF3MW31S				
Collect Date:		28-NOV-94				15-MAR-94				15-MAR-94				28-MAR-94				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Alkalinity, Bicarbonate	10	U	mg/l	10	230		mg/l	5	230		mg/l	5	170		mg/l	5		
Alkalinity, Carbonate	10	U	mg/l	10	5	U	mg/l	5	5	U	mg/l	5	5	U	mg/l	5		
Alkalinity, Total	10	U	mg/l	10	230		mg/l	20	240		mg/l	20	170		mg/l	20		
Chloride	8	J	mg/l	2	8		mg/l	2	8		mg/l	2	8	J	mg/l	2		
Hardness	5	U	mg/l	5	220		mg/l	5	210		mg/l	5	160		mg/l	5		
Hexavalent Chromium	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02		
Sulfate	18		mg/l	5	5	UJ	mg/l	5	5	UJ	mg/l	5	5	UJ	mg/l	5		
Sulfide	1.8		mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1		
Total Dissolved Solids	30		mg/l	10	310		mg/l	10	320		mg/l	10	220		mg/l	10		

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- WET CHEMISTRY

	Lab Sample Number:	L5548				L2885				M7084				M7081			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3MW32D				CF3MW33DD				CF3MW34S				CF3MW35D			
	Collect Date:	28-MAR-94				21-MAR-94				03-MAY-94				03-MAY-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate		140		mg/l	5	210		mg/l	5	96		mg/l	10	250		mg/l	10
Alkalinity, Carbonate		5	U	mg/l	5	5	U	mg/l	5	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total		140		mg/l	20	210		mg/l	20	96		mg/l	10	250		mg/l	10
Chloride		11	J	mg/l	2	5	J	mg/l	2	6		mg/l	2	14		mg/l	2
Hardness		230		mg/l	5	160		mg/l	5	90		mg/l	5	220		mg/l	5
Hexavalent Chromium		.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02
Sulfate		5	UJ	mg/l	5	5	UJ	mg/l	5	5	UJ	mg/l	5	22	J	mg/l	5
Sulfide		1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1		mg/l	1
Total Dissolved Solids		320		mg/l	10	220		mg/l	10	120		mg/l	10	290		mg/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		L4432			L3755			L4436			L3757		
Site		CECIL8			CECIL8			CECIL8			CECIL8		
Locator		CF3MW1			CF3MW3S			CF3MW4S			CF3MW5S		
Collect Date:		24-MAR-94			23-MAR-94			24-MAR-94			23-MAR-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	.5	U	mg/l	.5	1.8		mg/l	.5	1.7		mg/l	.5	.5	U	mg/l	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		L3758				L3740				L3742				L3737	
Site		CECIL8				CECIL8				CECIL8				CECIL8	
Locator		CF3MW6S				CF3MW7D				CF3MW7DD				CF3MW7S	
Collect Date:		23-MAR-94				22-MAR-94				22-MAR-94				22-MAR-94	
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	2.1		mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	1		mg/l	.5

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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	K9568				K9570				K9569				L0319			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW8S				CF3MW9I				CF3MW10D				CF3MW11I			
Collect Date:	11-MAR-94				11-MAR-94				11-MAR-94				14-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	UJ	mg/l	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		L0326				L4884				A1HHJ				L4885		
Site		CECIL8				CECIL8				CECIL8				CECIL8		
Locator		CF3MW12D				CF3MW13S				CF3MW13S				CF3MW14I		
Collect Date:		14-MAR-94				25-MAR-94				28-NOV-94				25-MAR-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	.5	UJ	mg/l	.5	1.3		mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		L4886			K9349			K9353			K9354		
Site		CECIL8			CECIL8			CECIL8			CECIL8		
Locator		CF3MW15D			CF3MW16S			CF3MW17D			CF3MW17DD		
Collect Date:		25-MAR-94			10-MAR-94			10-MAR-94			10-MAR-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	.7		mg/l	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		L2884				L2883				K8810				K8811	
Site		CECIL8				CECIL8				CECIL8				CECIL8	
Locator		CF3MW18S				CF3MW19D				CF3MW20S				CF3MW21I	
Collect Date:		21-MAR-94				21-MAR-94				09-MAR-94				09-MAR-94	
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		K8813				L5551				L1185				L1186		
Site		CECIL8				CECIL8				CECIL8				CECIL8		
Locator		CF3MW22D				CF3MW23S				CF3MW24D				CF3MW24DD		
Collect Date:		09-MAR-94				28-MAR-94				16-MAR-94				16-MAR-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.6		mg/l	.5	.5	U	mg/l	.5

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NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		L5540				L5544				L2887				L5546				
Site		CECIL8				CECIL8				CECIL8				CECIL8				
Locator		CF3MW25S				CF3MW26I				CF3MW27D				CF3MW28S				
Collect Date:		27-MAR-94				27-MAR-94				21-MAR-94				27-MAR-94				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5		

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1HHK			L0645			L0646			L5550					
Site	CECIL8			CECIL8			CECIL8			CECIL8					
Locator	CF3MW28S			CF3MW29D			CF3MW30DD			CF3MW31S					
Collect Date:	28-NOV-94			15-MAR-94			15-MAR-94			28-MAR-94					
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	UJ	mg/l	.5	.5	UJ	mg/l	.5	.5	U	mg/l	.5

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		L5548			L2885			M7084			M7081		
Site		CECIL8			CECIL8			CECIL8			CECIL8		
Locator		CF3MW32D			CF3MW33DD			CF3MW34S			CF3MW35D		
Collect Date:		28-MAR-94			21-MAR-94			03-MAY-94			03-MAY-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 / SITE 3
GROUNDWATER -- TOTAL ORGANIC CARBON

Lab Sample Number:	K9568			K9570			K9569			L0646		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3MW8S			CF3MW9I			CF3MW10D			CF3MW30DD		
Collect Date:	11-MAR-94			11-MAR-94			11-MAR-94			15-MAR-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Total organic carbon	17.9	mg/l	1	2	mg/l	1	1.6	mg/l	1	2.7	mg/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- VOLATILES

Lab Sample Number:		A1HAV				A1HAX				A1HC0				90055007					
Site		CECIL8				CECIL8				CECIL8				CECIL					
Locator		CF3SW1				CF3SW1D				CF3SW2				RCSW3					
Collect Date:		21-NOV-94				21-NOV-94				21-NOV-94				26-JUN-93					
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL			
CLP VOLATILES 90-SOW																			
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	10	U	ug/l	10			
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	10	U	ug/l	10			
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	10	U	ug/l	10			
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	10	U	ug/l	10			
Methylene chloride	2		ug/l	2	5		ug/l	2	3		ug/l	2	10	U	ug/l	10			
Acetone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	10	U	ug/l	10			
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Chloroform	8		ug/l	2	2		ug/l	2	7		ug/l	2	5	J	ug/l	10			
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	10	U	ug/l	10			
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Bromodichloromethane	5		ug/l	1	2		ug/l	1	5		ug/l	1	2	J	ug/l				
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Dibromochloromethane	2		ug/l	2	1	U	ug/l	1	2		ug/l	2	10	U	ug/l	10			
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	10	U	ug/l	10			
2-Hexanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	10	U	ug/l	10			
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	10	U	ug/l	10			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- SEMIVOLATILES

Lab Sample Number:	A1HAV				A1HAX				A1HC0				90055007			
Site	CECIL8				CECIL8				CECIL8				CECIL			
Locator	CF3SW1				CF3SW1D				CF3SW2				RCSW3			
Collect Date:	21-NOV-94				21-NOV-94				21-NOV-94				26-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	UJ	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- SEMIVOLATILES

Lab Sample Number:	A1HAV				A1HAX				A1HC0				90055007			
Site	CECIL8				CECIL8				CECIL8				CECIL			
Locator	CF3SW1				CF3SW1D				CF3SW2				RCSW3			
Collect Date:	21-NOV-94				21-NOV-94				21-NOV-94				26-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- PESTICIDES AND PCBs

Lab Sample Number:	A1HAV				A1HAX				A1HC0				90055007			
Site	CECIL8				CECIL8				CECIL8				CECIL			
Locator	CF3SW1				CF3SW1D				CF3SW2				RCSW3			
Collect Date:	21-NOV-94				21-NOV-94				21-NOV-94				26-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.008	J	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- METALS & CYANIDE (UNFILTERED & FILTERED)

	Lab Sample Number:	A1HAV				A1HAVF				A1HAX				A1HAXF			
	Site	CECIL8				CECIL8				CECIL8				CECIL8			
	Locator	CF3SW1				CF3SW1F				CF3SW1D				CF3SW1DF			
	Collect Date:	21-NOV-94				21-NOV-94				21-NOV-94				21-NOV-94			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																	
Aluminum		419	J	ug/l	200	130	U	ug/l	200	698	J	ug/l	200	307	U	ug/l	200
Antimony		2	U	ug/l	60	9.4		ug/l	60	2.3	J	ug/l	60	7.5	J	ug/l	60
Arsenic		3	UJ	ug/l	10	3	UJ	ug/l	10	3	UJ	ug/l	10	3	UJ	ug/l	10
Barium		26		ug/l	200	26		ug/l	200	26.2		ug/l	200	20.9		ug/l	200
Beryllium		1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Cadmium		1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Calcium		19500	J	ug/l	5000	22300	J	ug/l	5000	13900	J	ug/l	5000	14100	J	ug/l	5000
Chromium		2	U	ug/l	10	2	U	ug/l	10	2	U	ug/l	10	2	U	ug/l	10
Cobalt		2	U	ug/l	50	2	U	ug/l	50	2	U	ug/l	50	2	U	ug/l	50
Copper		4.7		ug/l	25	2.4		ug/l	25	4.4	J	ug/l	25	2.5		ug/l	25
Iron		742	J	ug/l	100	341	J	ug/l	100	1210	J	ug/l	100	670	J	ug/l	100
Lead		1	UJ	ug/l	5	1	UJ	ug/l	5	2.2	J	ug/l	5	1	UJ	ug/l	5
Magnesium		4500		ug/l	5000	5570		ug/l	5000	2480		ug/l	5000	2640		ug/l	5000
Manganese		18.9		ug/l	15	17.9		ug/l	15	20.5		ug/l	15	19.7		ug/l	15
Mercury		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel		2	U	ug/l	40	2	U	ug/l	40	2	U	ug/l	40	2	U	ug/l	40
Potassium		1800		ug/l	5000	2230		ug/l	5000	711		ug/l	5000	819		ug/l	5000
Selenium		4	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5
Silver		1	UJ	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10	1	UJ	ug/l	10
Sodium		14000	J	ug/l	5000	16100	J	ug/l	5000	7620	J	ug/l	5000	8070	J	ug/l	5000
Thallium		6	U	ug/l	10	6	U	ug/l	10	6	U	ug/l	10	6	U	ug/l	10
Vanadium		1.5		ug/l	50	1.3	J	ug/l	50	2		ug/l	50	1.4	J	ug/l	50
Zinc		28.1	UJ	ug/l	20	46.7	UJ	ug/l	20	30.3	UJ	ug/l	20	41.9	UJ	ug/l	20
Cyanide		10	U	ug/l	10	-				10	U	ug/l	10	-			

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- METALS & CYANIDE (UNFILTERED & FILTERED)

Lab Sample Number:	A1HC0				A1HC0F				90055007			
Site	CECIL8				CECIL8				CECIL			
Locator	CF3SW2				CF3SW2F				RCSW3			
Collect Date:	21-NOV-94				21-NOV-94				26-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	234	UJ	ug/l	200	116	U	ug/l	200	141	J	ug/l	200
Antimony	2	U	ug/l	60	6.3		ug/l	60	20.2	U	ug/l	60
Arsenic	3	UJ	ug/l	10	3	UJ	ug/l	10	1.7	U	ug/l	10
Barium	27.8		ug/l	200	26.7		ug/l	200	15.7	U	ug/l	200
Beryllium	1	U	ug/l	5	1	U	ug/l	5	.23	U	ug/l	5
Cadmium	1	U	ug/l	5	1	U	ug/l	5	.17	UJ	ug/l	5
Calcium	23200		ug/l	5000	23400		ug/l	5000	26500		ug/l	5000
Chromium	2	U	ug/l	10	2	U	ug/l	10	2.5	U	ug/l	10
Cobalt	2	U	ug/l	50	2	U	ug/l	50	4.8	U	ug/l	50
Copper	2.3		ug/l	25	2.3		ug/l	25	5	U	ug/l	25
Iron	455		ug/l	100	276		ug/l	100	702	J	ug/l	100
Lead	1	UJ	ug/l	5	1	UJ	ug/l	5	1.1	U	ug/l	5
Magnesium	6050		ug/l	5000	6220		ug/l	5000	9670		ug/l	5000
Manganese	17.8		ug/l	15	18.2		ug/l	15	10.7	J	ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.19	U	ug/l	.2
Nickel	2	U	ug/l	40	2	U	ug/l	40	9.2	U	ug/l	40
Potassium	2690		ug/l	5000	2740		ug/l	5000	4500	J	ug/l	5000
Selenium	4	U	ug/l	5	4	U	ug/l	5	1.6	U	ug/l	5
Silver	1	UJ	ug/l	10	1	UJ	ug/l	10	.24	J	ug/l	10
Sodium	19000		ug/l	5000	18400		ug/l	5000	27200		ug/l	5000
Thallium	6	U	ug/l	10	6	U	ug/l	10	1.3	U	ug/l	10
Vanadium	1.4	J	ug/l	50	1	U	ug/l	50	2	U	ug/l	50
Zinc	19.4	UJ	ug/l	20	33.5	UJ	ug/l	20	21.4	U	ug/l	20
Cyanide	10	U	ug/l	10	-				3	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- WET CHEMISTRY

Lab Sample Number:		A1HFH				A1HAV				A1HFJ				A1HAX		
Site		CECIL8				CECIL8				CECIL8				CECIL8		
Locator		CF3SW1				CF3SW1				CF3SW1D				CF3SW1D		
Collect Date:		21-NOV-94				21-NOV-94				21-NOV-94				21-NOV-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	48		mg/l	10	-				31		mg/l	10	-			
Alkalinity, Carbonate	10	U	mg/l	10	-				10	U	mg/l	10	-			
Alkalinity, Total	48		mg/l	10	-				32		mg/l	10	-			
Chloride	18	J	mg/l	2	-				13	J	mg/l	2	-			
Hexavalent chromium	.02	UJ	mg/l	.02	-				.02	UJ	mg/l	.02	-			
Hardness	98		mg/l	5	-				96		mg/l	5	-			
Sulfate	26	J	mg/l	5	-				11	J	mg/l	5	-			
Sulfide	1	U	mg/l	1	-				1	U	mg/l	1	-			
Total Kjeldahl Nitrogen	-				-				-				-			
Total Phosphorous	-				-				-				-			
Total Dissolved Solids	180		mg/l	10	-				140		mg/l	10	-			

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- WET CHEMISTRY

	Lab Sample Number:	A1HFL				A1HC0				90055007				90055007		
	Site	CECIL8				CECIL8				CECIL				CECIL		
	Locator	CF3SW2				CF3SW2				RCSW3				RCSW3		
	Collect Date:	21-NOV-94				21-NOV-94				26-JUN-93				26-JUN-93		
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate		59		mg/l	10	-				-				-			
Alkalinity, Carbonate		10	U	mg/l	10	-				-				-			
Alkalinity, Total		59		mg/l	10	-				-				-			
Chloride		25	J	mg/l	2	-				-				-			
Hexavalent chromium		.02	UJ	mg/l	.02	-				-				-			
Hardness		110		mg/l	5	-				-				-			
Sulfate		26		mg/l	5	-				-				-			
Sulfide		1	U	mg/l	1	-				-				-			
Total Kjeldahl Nitrogen		-				-				-				-			
Total Phosphorous		-				-				1.32		mg/l	.01	-			
Total Dissolved Solids		210		mg/l	10	-				-				-			

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- WET CHEMISTRY

Lab Sample Number:	90096020
Site	CECIL
Locator	RCSW3
Collect Date:	18-AUG-93

	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	-			
Alkalinity, Carbonate	-			
Alkalinity, Total	-			
Chloride	-			
Hexavalent chromium	-			
Hardness	-			
Sulfate	-			
Sulfide	-			
Total Kjeldahl Nitrogen	-			
Total Phosphorous	1.27		mg/l	.01
Total Dissolved Solids	-			

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1HFH			A1HAV			A1HFJ			A1HAX		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SW1			CF3SW1			CF3SW1D			CF3SW1D		
Collect Date:	21-NOV-94			21-NOV-94			21-NOV-94			21-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
Total petroleum hydrocarbons	.5 U	mg/l	.5	-			.5 U	mg/l	.5	-		

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SURFACE WATER -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	A1HFL			A1HC0			90055007			90055007		
Site	CECIL8			CECIL8			CECIL			CECIL		
Locator	CF3SW2			CF3SW2			RCSW3			RCSW3		
Collect Date:	21-NOV-94			21-NOV-94			26-JUN-93			26-JUN-93		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Total petroleum hydrocarbons	.5	U mg/l	.5	-			-			-		

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SEDIMENT -- VOLATILES

Lab Sample Number:	A1GLW			A1GM2			A1GM3			90055021		
Site	CECIL8			CECIL8			CECIL8			CECIL		
Locator	CF3SD1			CF3SD1D			CF3SD2			RCSD3		
Collect Date:	21-NOV-94			21-NOV-94			21-NOV-94			26-JUN-93		
	VALUE QUAL UNITS	DL		VALUE QUAL UNITS	DL		VALUE QUAL UNITS	DL		VALUE QUAL UNITS	DL	
CLP VOLATILES 90-SOW												
Chloromethane	14 U	ug/kg	14	14 U	ug/kg	14	13 U	ug/kg	13	14 U	ug/kg	14
Bromomethane	14 U	ug/kg	14	14 U	ug/kg	14	13 U	ug/kg	13	14 U	ug/kg	14
Vinyl chloride	14 U	ug/kg	14	14 U	ug/kg	14	13 U	ug/kg	13	14 U	ug/kg	14
Chloroethane	14 U	ug/kg	14	14 U	ug/kg	14	13 U	ug/kg	13	14 U	ug/kg	14
Methylene chloride	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Acetone	37 UJ	ug/kg	37	15 UJ	ug/kg	15	13 UJ	ug/kg	13	35 U	ug/kg	35
Carbon disulfide	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
1,1-Dichloroethene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
1,1-Dichloroethane	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
1,2-Dichloroethene (total)	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Chloroform	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
1,2-Dichloroethane	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
2-Butanone	4 J	ug/kg	14	14 U	ug/kg	14	13 U	ug/kg	13	6 J	ug/kg	14
1,1,1-Trichloroethane	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Carbon tetrachloride	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Bromodichloromethane	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
1,2-Dichloropropane	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
cis-1,3-Dichloropropene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Trichloroethene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Dibromochloromethane	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
1,1,2-Trichloroethane	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Benzene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
trans-1,3-Dichloropropene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Bromoform	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
4-Methyl-2-pentanone	14 U	ug/kg	14	14 U	ug/kg	14	13 U	ug/kg	13	14 U	ug/kg	14
2-Hexanone	14 U	ug/kg	14	14 U	ug/kg	14	13 U	ug/kg	13	14 U	ug/kg	14
Tetrachloroethene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Toluene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
1,1,2,2-Tetrachloroethane	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Chlorobenzene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Ethylbenzene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Styrene	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14
Xylenes (total)	7 U	ug/kg	7	7 U	ug/kg	7	6 U	ug/kg	6	14 U	ug/kg	14

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SEDIMENT -- SEMIVOLATILES

Lab Sample Number:	A1GLW			A1GM2			A1GM3			90055022		
Site	CECIL8			CECIL8			CECIL8			CECIL		
Locator	CF3SD1			CF3SD1D			CF3SD2			RCSD3		
Collect Date:	21-NOV-94			21-NOV-94			21-NOV-94			26-JUN-93		
	VALUE QUAL UNITS		DL	VALUE QUAL UNITS		DL	VALUE QUAL UNITS		DL	VALUE QUAL UNITS		DL
CLP SEMIVOLATILES 90-SOW												
Phenol	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
bis(2-Chloroethyl) ether	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2-Chlorophenol	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
1,3-Dichlorobenzene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
1,4-Dichlorobenzene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
1,2-Dichlorobenzene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2-Methylphenol	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2,2-oxybis(1-Chloropropane)	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
4-Methylphenol	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
N-Nitroso-di-n-propylamine	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Hexachloroethane	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Nitrobenzene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Isophorone	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2-Nitrophenol	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2,4-Dimethylphenol	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
bis(2-Chloroethoxy) methane	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2,4-Dichlorophenol	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
1,2,4-Trichlorobenzene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Naphthalene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
4-Chloroaniline	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Hexachlorobutadiene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
4-Chloro-3-methylphenol	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2-Methylnaphthalene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Hexachlorocyclopentadiene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2,4,6-Trichlorophenol	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2,4,5-Trichlorophenol	1100 U	ug/kg	1100	1200 U	ug/kg	1200	1000 U	ug/kg	1000	1100 U	ug/kg	1100
2-Chloronaphthalene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2-Nitroaniline	1100 U	ug/kg	1100	1200 U	ug/kg	1200	1000 U	ug/kg	1000	1100 U	ug/kg	1100
Dimethylphthalate	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Acenaphthylene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2,6-Dinitrotoluene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
3-Nitroaniline	1100 U	ug/kg	1100	1200 U	ug/kg	1200	1000 U	ug/kg	1000	1100 U	ug/kg	1100
Acenaphthene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2,4-Dinitrophenol	1100 U	ug/kg	1100	1200 U	ug/kg	1200	1000 U	ug/kg	1000	1100 U	ug/kg	1100
4-Nitrophenol	1100 U	ug/kg	1100	1200 U	ug/kg	1200	1000 U	ug/kg	1000	1100 U	ug/kg	1100
Dibenzofuran	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
2,4-Dinitrotoluene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Diethylphthalate	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
4-Chlorophenyl-phenylether	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Fluorene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
4-Nitroaniline	1100 U	ug/kg	1100	1200 U	ug/kg	1200	1000 U	ug/kg	1000	1100 U	ug/kg	1100
4,6-Dinitro-2-methylphenol	1100 U	ug/kg	1100	1200 U	ug/kg	1200	1000 U	ug/kg	1000	1100 U	ug/kg	1100
N-Nitrosodiphenylamine (1)	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
4-Bromophenyl-phenylether	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Hexachlorobenzene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Pentachlorophenol	1100 U	ug/kg	1100	1200 U	ug/kg	1200	1000 U	ug/kg	1000	1100 U	ug/kg	1100
Phenanthrene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Anthracene	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Carbazole	440 U	ug/kg	440	480 U	ug/kg	480	420 U	ug/kg	420	460 U	ug/kg	460
Di-n-butylphthalate	600 U	ug/kg	440	480 U	ug/kg	480	470 U	ug/kg	470	310 J	ug/kg	460

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SEDIMENT -- SEMIVOLATILES

Lab Sample Number:	A1GLW				A1GM2				A1GM3				90055022			
Site	CECIL8				CECIL8				CECIL8				CECIL			
Locator	CF3SD1				CF3SD1D				CF3SD2				RCSD3			
Collect Date:	21-NOV-94				21-NOV-94				21-NOV-94				26-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Pyrene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Butylbenzylphthalate	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
3,3-Dichlorobenzidine	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Benzo (a) anthracene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Chrysene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
bis(2-Ethylhexyl) phthalate	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Di-n-octylphthalate	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	260	J	ug/kg	460
Benzo (b) fluoranthene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Benzo (k) fluoranthene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Benzo (a) pyrene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Indeno (1,2,3-cd) pyrene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Dibenz (a,h) anthracene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460
Benzo (g,h,i) perylene	440	U	ug/kg	440	480	U	ug/kg	480	420	U	ug/kg	420	460	U	ug/kg	460

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SEDIMENT -- PESTICIDES AND PCBs

Lab Sample Number:	A1GLW				A1GLWRE				A1GLWRE2				A1GM2			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SD1				CF3SD1RE				CF3SD1RE2				CF3SD1D			
Collect Date:	21-NOV-94				21-NOV-94				21-NOV-94				21-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
beta-BHC	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
delta-BHC	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
gamma-BHC (Lindane)	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
Heptachlor	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
Aldrin	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
Heptachlor epoxide	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
Endosulfan I	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
Dieldrin	17		ug/kg	4	4.5	UJ	ug/kg	4.5	4.4	R	ug/kg	4.4	4.8	U	ug/kg	4.8
4,4-DDE	4.5	U	ug/kg	4.5	.52	J	ug/kg	4	4.4	R	ug/kg	4.4	4.8	U	ug/kg	4.8
Endrin	4.5	U	ug/kg	4.5	4.5	UJ	ug/kg	4.5	4.4	R	ug/kg	4.4	4.8	U	ug/kg	4.8
Endosulfan II	4.5	U	ug/kg	4.5	4.5	UJ	ug/kg	4.5	4.4	R	ug/kg	4.4	4.8	U	ug/kg	4.8
4,4-DDD	4.5	U	ug/kg	4.5	4.5	UJ	ug/kg	4.5	4.4	R	ug/kg	4.4	4.8	U	ug/kg	4.8
Endosulfan sulfate	4.5	U	ug/kg	4.5	4.5	UJ	ug/kg	4.5	4.4	R	ug/kg	4.4	4.8	U	ug/kg	4.8
4,4-DDT	110	R	ug/kg	4	4.4	J	ug/kg	4	.84	R	ug/kg	4	4.8	U	ug/kg	4.8
Methoxychlor	23	U	ug/kg	23	23	UJ	ug/kg	23	23	R	ug/kg	23	25	U	ug/kg	25
Endrin ketone	.55	J	ug/kg	4	4.5	UJ	ug/kg	4.5	4.4	R	ug/kg	4.4	4.8	U	ug/kg	4.8
Endrin aldehyde	4.5	U	ug/kg	4.5	4.5	UJ	ug/kg	4.5	4.4	R	ug/kg	4.4	4.8	U	ug/kg	4.8
alpha-Chlordane	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
gamma-Chlordane	2.3	U	ug/kg	2.3	2.3	UJ	ug/kg	2.3	2.3	R	ug/kg	2.3	2.5	U	ug/kg	2.5
Toxaphene	230	U	ug/kg	230	230	UJ	ug/kg	230	230	R	ug/kg	230	250	U	ug/kg	250
Aroclor-1016	45	U	ug/kg	45	45	UJ	ug/kg	45	44	R	ug/kg	44	48	U	ug/kg	48
Aroclor-1221	91	U	ug/kg	91	91	UJ	ug/kg	91	90	R	ug/kg	90	97	U	ug/kg	97
Aroclor-1232	45	U	ug/kg	45	45	UJ	ug/kg	45	44	R	ug/kg	44	48	U	ug/kg	48
Aroclor-1242	45	U	ug/kg	45	45	UJ	ug/kg	45	44	R	ug/kg	44	48	U	ug/kg	48
Aroclor-1248	45	U	ug/kg	45	45	UJ	ug/kg	45	44	R	ug/kg	44	48	U	ug/kg	48
Aroclor-1254	45	U	ug/kg	45	45	UJ	ug/kg	45	44	R	ug/kg	44	48	U	ug/kg	48
Aroclor-1260	45	U	ug/kg	45	45	UJ	ug/kg	45	44	R	ug/kg	44	48	U	ug/kg	48

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SEDIMENT -- PESTICIDES AND PCBs

Lab Sample Number:	A1GM3				90055022			
Site	CECIL8				CECIL			
Locator	CF3SD2				RCSD3			
Collect Date:	21-NOV-94				26-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW								
alpha-BHC	2.2	U	ug/kg	2.2	2.3	U	ug/kg	2.3
beta-BHC	2.2	U	ug/kg	2.2	2.3	U	ug/kg	2.3
delta-BHC	2.2	U	ug/kg	2.2	2.3	U	ug/kg	2.3
gamma-BHC (Lindane)	2.2	U	ug/kg	2.2	2.3	U	ug/kg	2.3
Heptachlor	2.2	U	ug/kg	2.2	2.3	U	ug/kg	2.3
Aldrin	2.2	U	ug/kg	2.2	2.3	U	ug/kg	2.3
Heptachlor epoxide	2.2	U	ug/kg	2.2	2.3	U	ug/kg	2.3
Endosulfan I	2.2	U	ug/kg	2.2	2.3	U	ug/kg	2.3
Dieldrin	4.2	U	ug/kg	4.2	4.5	U	ug/kg	4.5
4,4-DDE	4.2	U	ug/kg	4.2	1.8	J	ug/kg	4
Endrin	4.2	U	ug/kg	4.2	4.5	U	ug/kg	4.5
Endosulfan II	4.2	U	ug/kg	4.2	4.5	U	ug/kg	4.5
4,4-DDD	4.2	U	ug/kg	4.2	4.5	U	ug/kg	4.5
Endosulfan sulfate	4.2	U	ug/kg	4.2	4.5	U	ug/kg	4.5
4,4-DDT	4.2	U	ug/kg	4.2	4.5	U	ug/kg	4.5
Methoxychlor	22	U	ug/kg	22	23	U	ug/kg	23
Endrin ketone	4.2	U	ug/kg	4.2	4.5	U	ug/kg	4.5
Endrin aldehyde	4.2	U	ug/kg	4.2	4.5	U	ug/kg	4.5
alpha-Chlordane	2.2	U	ug/kg	2.2	1	U	ug/kg	1
gamma-Chlordane	2.2	U	ug/kg	2.2	2	U	ug/kg	2
Toxaphene	220	U	ug/kg	220	230	U	ug/kg	230
Aroclor-1016	42	U	ug/kg	42	45	U	ug/kg	45
Aroclor-1221	86	U	ug/kg	86	92	U	ug/kg	92
Aroclor-1232	42	U	ug/kg	42	45	U	ug/kg	45
Aroclor-1242	42	U	ug/kg	42	45	U	ug/kg	45
Aroclor-1248	42	U	ug/kg	42	45	U	ug/kg	45
Aroclor-1254	42	U	ug/kg	42	180		ug/kg	45
Aroclor-1260	42	U	ug/kg	42	70	U	ug/kg	70

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SEDIMENT -- METALS AND CYANIDE

Lab Sample Number:	A1GLW			A1GM2			A1GM3			90055022		
Site	CECIL8			CECIL8			CECIL8			CECIL		
Locator	CF3SD1			CF3SD1D			CF3SD2			RCSD3		
Collect Date:	21-NOV-94			21-NOV-94			21-NOV-94			26-JUN-93		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	373	mg/kg	40	415	mg/kg	40	568	mg/kg	40	1010	mg/kg	40
Antimony	.54 U	mg/kg	12	.57 U	mg/kg	12	.52 U	mg/kg	12	5.8 U	mg/kg	12
Arsenic	.81 U	mg/kg	20	.85 U	mg/kg	20	.77 U	mg/kg	20	.48 U	mg/kg	2
Barium	3.7 U	mg/kg	40	3.4 U	mg/kg	40	3.2 U	mg/kg	40	6.9 J	mg/kg	40
Beryllium	.27 U	mg/kg	1	.28 U	mg/kg	1	.26 U	mg/kg	1	.08 U	mg/kg	1
Cadmium	.27 U	mg/kg	1	.28 U	mg/kg	1	.26 U	mg/kg	1	.75 U	mg/kg	1
Calcium	380	mg/kg	1000	321	mg/kg	1000	520	mg/kg	1000	912 J	mg/kg	1000
Chromium	.59 U	mg/kg	2	1 U	mg/kg	2	.6 U	mg/kg	2	2.2 U	mg/kg	2
Cobalt	.54 U	mg/kg	10	.57 U	mg/kg	10	.52 U	mg/kg	10	1.4 U	mg/kg	10
Copper	2.6 U	mg/kg	5	2.1 U	mg/kg	5	1.6 U	mg/kg	5	3.4 J	mg/kg	5
Iron	297	mg/kg	20	244	mg/kg	20	263	mg/kg	20	599	mg/kg	20
Lead	2.9	mg/kg	.6	4.1	mg/kg	.6	2.9	mg/kg	.6	6.2	mg/kg	1
Magnesium	49.8	mg/kg	1000	50	mg/kg	1000	49.8	mg/kg	1000	85.8 J	mg/kg	1000
Manganese	2.4 U	mg/kg	3	2.7	mg/kg	3	4.3	mg/kg	3	3 J	mg/kg	3
Mercury	.14 UJ	mg/kg	.1	.14 UJ	mg/kg	.1	.12 UJ	mg/kg	.1	.02 U	mg/kg	.1
Nickel	.54 U	mg/kg	8	1.9 U	mg/kg	8	.52 U	mg/kg	8	2.6 U	mg/kg	8
Potassium	23.4 U	mg/kg	1000	22.2 U	mg/kg	1000	37.7 U	mg/kg	1000	113 U	mg/kg	1000
Selenium	1.1 U	mg/kg	1	1.1 U	mg/kg	1	1 U	mg/kg	1	.47 U	mg/kg	1
Silver	.27 U	mg/kg	2	.28 U	mg/kg	2	.26 U	mg/kg	2	.7 U	mg/kg	2
Sodium	194 U	mg/kg	1000	190 U	mg/kg	1000	172 U	mg/kg	1000	19.3 U	mg/kg	1000
Thallium	1.6 U	mg/kg	2	1.7 U	mg/kg	2	1.5 U	mg/kg	2	.38 U	mg/kg	2
Vanadium	.82	mg/kg	10	.85	mg/kg	10	1.1	mg/kg	10	1.2 J	mg/kg	10
Zinc	9.7 U	mg/kg	4	8.9 U	mg/kg	4	10.1 U	mg/kg	4	14.6	mg/kg	4
Cyanide	.67 U	mg/kg	.5	.73 U	mg/kg	.5	.64 U	mg/kg	.5	.44 U	mg/kg	1

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SEDIMENT -- TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:		A1GKA				A1GKD				A1GKE		
Site		CECIL8				CECIL8				CECIL8		
Locator		CF3SD1				CF3SD1D				CF3SD2		
Collect Date:		21-NOV-94				21-NOV-94				21-NOV-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total petroleum hydrocarbons	14	U	mg/kg	14	13	U	mg/kg	13	15	U	mg/kg	15

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
SEDIMENT -- TOTAL ORGANIC CARBON

Lab Sample Number:	A1GKA				A1GKD				A1GKE				90055022			
Site	CECIL8				CECIL8				CECIL8				CECIL			
Locator	CF3SD1				CF3SD1D				CF3SD2				RCSD3			
Collect Date:	21-NOV-94				21-NOV-94				21-NOV-94				26-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total organic carbon	1300		mg/kg	140	1300		mg/kg	130	2600		mg/kg	150	6340		mg/kg	5

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:	A1FN6RE				A1FKNRE				A1FKWRE				A1FLVRE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB1RE				CF3SB25RE				CF3SB26RE				CF3SB27DRE			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
bis(2-Chloroethyl) ether	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2-Chlorophenol	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
1,3-Dichlorobenzene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
1,4-Dichlorobenzene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
1,2-Dichlorobenzene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2-Methylphenol	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2,2-oxybis(1-Chloropropane)	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
4-Methylphenol	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
N-Nitroso-di-n-propylamine	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Hexachloroethane	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Nitrobenzene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Isophorone	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2-Nitrophenol	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2,4-Dimethylphenol	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
bis(2-Chloroethoxy) methane	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2,4-Dichlorophenol	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
1,2,4-Trichlorobenzene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Naphthalene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
4-Chloroaniline	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Hexachlorobutadiene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
4-Chloro-3-methylphenol	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2-Methylnaphthalene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Hexachlorocyclopentadiene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2,4,6-Trichlorophenol	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2,4,5-Trichlorophenol	980	UJ	ug/kg	980	970	UJ	ug/kg	970	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980
2-Chloronaphthalene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2-Nitroaniline	980	UJ	ug/kg	980	970	UJ	ug/kg	970	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980
Dimethylphthalate	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Acenaphthylene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2,6-Dinitrotoluene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
3-Nitroaniline	980	UJ	ug/kg	980	970	UJ	ug/kg	970	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980
Acenaphthene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2,4-Dinitrophenol	980	UJ	ug/kg	980	970	UJ	ug/kg	970	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980
4-Nitrophenol	980	UJ	ug/kg	980	970	UJ	ug/kg	970	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980
Dibenzofuran	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
2,4-Dinitrotoluene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Diethylphthalate	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
4-Chlorophenyl-phenylether	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Fluorene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
4-Nitroaniline	980	UJ	ug/kg	980	970	UJ	ug/kg	970	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980
4,6-Dinitro-2-methylphenol	980	UJ	ug/kg	980	970	UJ	ug/kg	970	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980
N-Nitrosodiphenylamine (1)	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
4-Bromophenyl-phenylether	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Hexachlorobenzene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Pentachlorophenol	980	UJ	ug/kg	980	970	UJ	ug/kg	970	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980
Phenanthrene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Anthracene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Carbazole	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Di-n-butylphthalate	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:	A1FN6RE				A1FKNRE				A1FKWRE				A1FLVRE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB1RE				CF3SB25RE				CF3SB26RE				CF3SB27DRE			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Pyrene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Butylbenzylphthalate	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
3,3-Dichlorobenzidine	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Benzo (a) anthracene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Chrysene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
bis(2-Ethylhexyl) phthalate	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Di-n-octylphthalate	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Benzo (b) fluoranthene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Benzo (k) fluoranthene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Benzo (a) pyrene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Indeno (1,2,3-cd) pyrene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Dibenz (a,h) anthracene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400
Benzo (g,h,i) perylene	400	UJ	ug/kg	400	400	UJ	ug/kg	400	430	UJ	ug/kg	430	400	UJ	ug/kg	400

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:		A1FLARE				A1FM9RE				A1FMGRE				A1FMKRE		
Site		CECIL8				CECIL8				CECIL8				CECIL8		
Locator		CF3SB27RE				CF3SB28RE				CF3SB29RE				CF3SB30RE		
Collect Date:		20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
bis(2-Chloroethyl) ether	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2-Chlorophenol	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
1,3-Dichlorobenzene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
1,4-Dichlorobenzene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
1,2-Dichlorobenzene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2-Methylphenol	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2,2-oxybis(1-Chloropropane)	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
4-Methylphenol	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
N-Nitroso-di-n-propylamine	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Hexachloroethane	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Nitrobenzene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Isophorone	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2-Nitrophenol	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2,4-Dimethylphenol	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
bis(2-Chloroethoxy) methane	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2,4-Dichlorophenol	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
1,2,4-Trichlorobenzene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Naphthalene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
4-Chloroaniline	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Hexachlorobutadiene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
4-Chloro-3-methylphenol	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2-Methylnaphthalene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Hexachlorocyclopentadiene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2,4,6-Trichlorophenol	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2,4,5-Trichlorophenol	1000	UJ	ug/kg	1000	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980	1200	UJ	ug/kg	1200
2-Chloronaphthalene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2-Nitroaniline	1000	UJ	ug/kg	1000	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980	1200	UJ	ug/kg	1200
Dimethylphthalate	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Acenaphthylene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2,6-Dinitrotoluene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
3-Nitroaniline	1000	UJ	ug/kg	1000	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980	1200	UJ	ug/kg	1200
Acenaphthene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2,4-Dinitrophenol	1000	UJ	ug/kg	1000	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980	1200	UJ	ug/kg	1200
4-Nitrophenol	1000	UJ	ug/kg	1000	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980	1200	UJ	ug/kg	1200
Dibenzofuran	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
2,4-Dinitrotoluene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Diethylphthalate	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
4-Chlorophenyl-phenylether	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Fluorene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:	A1FLARE				A1FM9RE				A1FMGRE				A1FMKRE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB27RE				CF3SB28RE				CF3SB29RE				CF3SB30RE			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				20-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1000	UJ	ug/kg	1000	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980	1200	UJ	ug/kg	1200
4,6-Dinitro-2-methylphenol	1000	UJ	ug/kg	1000	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980	1200	UJ	ug/kg	1200
N-Nitrosodiphenylamine (1)	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
4-Bromophenyl-phenylether	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Hexachlorobenzene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Pentachlorophenol	1000	UJ	ug/kg	1000	1000	UJ	ug/kg	1000	980	UJ	ug/kg	980	1200	UJ	ug/kg	1200
Phenanthrene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Anthracene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Carbazole	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Di-n-butylphthalate	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Fluoranthene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Pyrene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Butylbenzylphthalate	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
3,3-Dichlorobenzidine	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Benzo (a) anthracene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Chrysene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
bis(2-Ethylhexyl) phthalate	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Di-n-octylphthalate	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Benzo (b) fluoranthene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Benzo (k) fluoranthene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Benzo (a) pyrene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Indeno (1,2,3-cd) pyrene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Dibenz (a,h) anthracene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480
Benzo (g,h,i) perylene	420	UJ	ug/kg	420	420	UJ	ug/kg	420	400	UJ	ug/kg	400	480	UJ	ug/kg	480

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:	A1FMNRE				A1FNORE				A1FMQRE				K8861RE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB31RE				CF3SB32DRE				CF3SB32RE				CF3SCRE			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				09-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
bis(2-Chloroethyl) ether	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2-Chlorophenol	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
1,3-Dichlorobenzene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
1,4-Dichlorobenzene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
1,2-Dichlorobenzene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2-Methylphenol	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2,2-oxybis(1-Chloropropane)	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
4-Methylphenol	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
N-Nitroso-di-n-propylamine	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Hexachloroethane	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Nitrobenzene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Isophorone	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2-Nitrophenol	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2,4-Dimethylphenol	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
bis(2-Chloroethoxy) methane	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2,4-Dichlorophenol	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
1,2,4-Trichlorobenzene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Naphthalene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
4-Chloroaniline	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Hexachlorobutadiene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
4-Chloro-3-methylphenol	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2-Methylnaphthalene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Hexachlorocyclopentadiene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2,4,6-Trichlorophenol	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2,4,5-Trichlorophenol	1100	UJ	ug/kg	1100	1600	UJ	ug/kg	1600	1000	UJ	ug/kg	1000	25	UJ	ug/l	25
2-Chloronaphthalene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2-Nitroaniline	1100	UJ	ug/kg	1100	1600	UJ	ug/kg	1600	1000	UJ	ug/kg	1000	25	UJ	ug/l	25
Dimethylphthalate	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Acenaphthylene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2,6-Dinitrotoluene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
3-Nitroaniline	1100	UJ	ug/kg	1100	1600	UJ	ug/kg	1600	1000	UJ	ug/kg	1000	25	UJ	ug/l	25
Acenaphthene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2,4-Dinitrophenol	1100	UJ	ug/kg	1100	1600	UJ	ug/kg	1600	1000	UJ	ug/kg	1000	25	UJ	ug/l	25
4-Nitrophenol	1100	UJ	ug/kg	1100	1600	UJ	ug/kg	1600	1000	UJ	ug/kg	1000	25	UJ	ug/l	25
Dibenzofuran	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
2,4-Dinitrotoluene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Diethylphthalate	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
4-Chlorophenyl-phenylether	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Fluorene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:	A1FMNRE				A1FNORE				A1FMQRE				K8861RE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB31RE				CF3SB32DRE				CF3SB32RE				CF3SCRE			
Collect Date:	20-NOV-94				20-NOV-94				20-NOV-94				09-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	1100	UJ	ug/kg	1100	1600	UJ	ug/kg	1600	1000	UJ	ug/kg	1000	25	UJ	ug/l	25
4,6-Dinitro-2-methylphenol	1100	UJ	ug/kg	1100	1600	UJ	ug/kg	1600	1000	UJ	ug/kg	1000	25	UJ	ug/l	25
N-Nitrosodiphenylamine (1)	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
4-Bromophenyl-phenylether	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Hexachlorobenzene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Pentachlorophenol	1100	UJ	ug/kg	1100	1600	UJ	ug/kg	1600	1000	UJ	ug/kg	1000	25	UJ	ug/l	25
Phenanthrene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Anthracene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Carbazole	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Di-n-butylphthalate	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Fluoranthene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Pyrene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Butylbenzylphthalate	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
3,3-Dichlorobenzidine	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Benzo (a) anthracene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Chrysene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
bis(2-Ethylhexyl) phthalate	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Di-n-octylphthalate	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Benzo (b) fluoranthene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Benzo (k) fluoranthene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Benzo (a) pyrene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Indeno (1,2,3-cd) pyrene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Dibenz (a,h) anthracene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10
Benzo (g,h,i) perylene	460	UJ	ug/kg	460	680	UJ	ug/kg	680	420	UJ	ug/kg	420	10	UJ	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:	A1FN2RE				M7119RE				A1HHQDL				A1HHVDL			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS1RE				MW34SRE				CF3MW13SDL				CF3MW28SDL			
Collect Date:	20-NOV-94				03-MAY-94				28-NOV-94				28-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
bis(2-Chloroethyl) ether	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2-Chlorophenol	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
1,3-Dichlorobenzene	390	UJ	ug/kg	390	10	UJ	ug/l	10	180	J	ug/l	2000	15	J	ug/l	100
1,4-Dichlorobenzene	390	UJ	ug/kg	390	10	UJ	ug/l	10	890	J	ug/l	2000	77	J	ug/l	100
1,2-Dichlorobenzene	390	UJ	ug/kg	390	10	UJ	ug/l	10	7000	J	ug/l	2000	560		ug/l	100
2-Methylphenol	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2,2-oxybis(1-Chloropropane)	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
4-Methylphenol	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
N-Nitroso-di-n-propylamine	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Hexachloroethane	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Nitrobenzene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Isophorone	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2-Nitrophenol	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2,4-Dimethylphenol	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
bis(2-Chloroethoxy) methane	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2,4-Dichlorophenol	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
1,2,4-Trichlorobenzene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Naphthalene	390	UJ	ug/kg	390	10	UJ	ug/l	10	290	J	ug/l	2000	53	J	ug/l	100
4-Chloroaniline	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Hexachlorobutadiene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
4-Chloro-3-methylphenol	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2-Methylnaphthalene	390	UJ	ug/kg	390	10	UJ	ug/l	10	160	J	ug/l	2000	43	J	ug/l	100
Hexachlorocyclopentadiene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2,4,6-Trichlorophenol	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2,4,5-Trichlorophenol	940	UJ	ug/kg	940	25	UJ	ug/l	25	5000	UJ	ug/l	5000	250	U	ug/l	250
2-Chloronaphthalene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2-Nitroaniline	940	UJ	ug/kg	940	25	UJ	ug/l	25	5000	UJ	ug/l	5000	250	U	ug/l	250
Dimethylphthalate	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Acenaphthylene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2,6-Dinitrotoluene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
3-Nitroaniline	940	UJ	ug/kg	940	25	UJ	ug/l	25	5000	UJ	ug/l	5000	250	U	ug/l	250
Acenaphthene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2,4-Dinitrophenol	940	UJ	ug/kg	940	25	UJ	ug/l	25	5000	UJ	ug/l	5000	250	U	ug/l	250
4-Nitrophenol	940	UJ	ug/kg	940	25	UJ	ug/l	25	5000	UJ	ug/l	5000	250	U	ug/l	250
Dibenzofuran	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
2,4-Dinitrotoluene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Diethylphthalate	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
4-Chlorophenyl-phenylether	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Fluorene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:	A1FN2RE				M7119RE				A1HHQDL				A1HHVDL			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS1RE				MW34SRE				CF3MW13SDL				CF3MW28SDL			
Collect Date:	20-NOV-94				03-MAY-94				28-NOV-94				28-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	940	UJ	ug/kg	940	25	UJ	ug/l	25	5000	UJ	ug/l	5000	250	U	ug/l	250
4,6-Dinitro-2-methylphenol	940	UJ	ug/kg	940	25	UJ	ug/l	25	5000	UJ	ug/l	5000	250	U	ug/l	250
N-Nitrosodiphenylamine (1)	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
4-Bromophenyl-phenylether	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Hexachlorobenzene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Pentachlorophenol	940	UJ	ug/kg	940	25	UJ	ug/l	25	5000	UJ	ug/l	5000	250	U	ug/l	250
Phenanthrene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Anthracene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Carbazole	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Di-n-butylphthalate	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Fluoranthene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Pyrene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Butylbenzylphthalate	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
3,3-Dichlorobenzidine	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Benzo (a) anthracene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Chrysene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
bis(2-Ethylhexyl) phthalate	390	UJ	ug/kg	390	76	J	ug/l	20	2000	UJ	ug/l	2000	100	U	ug/l	100
Di-n-octylphthalate	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Benzo (b) fluoranthene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Benzo (k) fluoranthene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Benzo (a) pyrene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Indeno (1,2,3-cd) pyrene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Dibenz (a,h) anthracene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100
Benzo (g,h,i) perylene	390	UJ	ug/kg	390	10	UJ	ug/l	10	2000	UJ	ug/l	2000	100	U	ug/l	100

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:	A1DW3DL
Site	CECIL8
Locator	CF3SB5DL
Collect Date:	18-NOV-94

	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW				
Phenol	1000	U	ug/kg	1000
bis(2-Chloroethyl) ether	1000	U	ug/kg	1000
2-Chlorophenol	1000	U	ug/kg	1000
1,3-Dichlorobenzene	1000	U	ug/kg	1000
1,4-Dichlorobenzene	1000	U	ug/kg	1000
1,2-Dichlorobenzene	1000	U	ug/kg	1000
2-Methylphenol	1000	U	ug/kg	1000
2,2-oxybis(1-Chloropropane)	1000	U	ug/kg	1000
4-Methylphenol	1000	U	ug/kg	1000
N-Nitroso-di-n-propylamine	1000	U	ug/kg	1000
Hexachloroethane	1000	U	ug/kg	1000
Nitrobenzene	1000	U	ug/kg	1000
Isophorone	1000	U	ug/kg	1000
2-Nitrophenol	1000	U	ug/kg	1000
2,4-Dimethylphenol	1000	U	ug/kg	1000
bis(2-Chloroethoxy) methane	1000	U	ug/kg	1000
2,4-Dichlorophenol	1000	U	ug/kg	1000
1,2,4-Trichlorobenzene	1000	U	ug/kg	1000
Naphthalene	1000	U	ug/kg	1000
4-Chloroaniline	1000	U	ug/kg	1000
Hexachlorobutadiene	1000	U	ug/kg	1000
4-Chloro-3-methylphenol	1000	U	ug/kg	1000
2-Methylnaphthalene	1000	U	ug/kg	1000
Hexachlorocyclopentadiene	1000	U	ug/kg	1000
2,4,6-Trichlorophenol	1000	U	ug/kg	1000
2,4,5-Trichlorophenol	2400	U	ug/kg	2400
2-Chloronaphthalene	1000	U	ug/kg	1000
2-Nitroaniline	2400	U	ug/kg	2400
Dimethylphthalate	1000	U	ug/kg	1000
Acenaphthylene	1000	U	ug/kg	1000
2,6-Dinitrotoluene	1000	U	ug/kg	1000
3-Nitroaniline	2400	U	ug/kg	2400
Acenaphthene	1000	U	ug/kg	1000
2,4-Dinitrophenol	2400	U	ug/kg	2400
4-Nitrophenol	2400	U	ug/kg	2400
Dibenzofuran	1000	U	ug/kg	1000
2,4-Dinitrotoluene	1000	U	ug/kg	1000
Diethylphthalate	1000	U	ug/kg	1000
4-Chlorophenyl-phenylether	1000	U	ug/kg	1000
Fluorene	1000	U	ug/kg	1000

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- SEMIVOLATILES

Lab Sample Number:	A1DW3DL			
Site	CECIL8			
Locator	CF3SB5DL			
Collect Date:	18-NOV-94			
	VALUE	QUAL	UNITS	DL
4-Nitroaniline	2400	U	ug/kg	2400
4,6-Dinitro-2-methylphenol	2400	U	ug/kg	2400
N-Nitrosodiphenylamine (1)	1000	U	ug/kg	1000
4-Bromophenyl-phenylether	1000	U	ug/kg	1000
Hexachlorobenzene	1000	U	ug/kg	1000
Pentachlorophenol	2400	U	ug/kg	2400
Phenanthrene	1000	U	ug/kg	1000
Anthracene	1000	U	ug/kg	1000
Carbazole	1000	U	ug/kg	1000
Di-n-butylphthalate	1000	U	ug/kg	1000
Fluoranthene	1000	U	ug/kg	1000
Pyrene	1000	U	ug/kg	1000
Butylbenzylphthalate	1000	U	ug/kg	1000
3,3-Dichlorobenzidine	1000	U	ug/kg	1000
Benzo (a) anthracene	1000	U	ug/kg	1000
Chrysene	1000	U	ug/kg	1000
bis(2-Ethylhexyl) phthalate	3900	U	ug/kg	3900
Di-n-octylphthalate	1000	U	ug/kg	1000
Benzo (b) fluoranthene	1000	U	ug/kg	1000
Benzo (k) fluoranthene	1000	U	ug/kg	1000
Benzo (a) pyrene	1000	U	ug/kg	1000
Indeno (1,2,3-cd) pyrene	1000	U	ug/kg	1000
Dibenz (a,h) anthracene	1000	U	ug/kg	1000
Benzo (g,h,i) perylene	1000	U	ug/kg	1000

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- PESTICIDES AND PCBs

	K9383RE				L4456RE				L5593RE				L5595RE			
Lab Sample Number:																
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW16SRE				CF3MW1RE				CF3MW26IRE				CF3MW28SRE			
Collect Date:	10-MAR-94				24-MAR-94				27-MAR-94				27-MAR-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- PESTICIDES AND PCBs

Lab Sample Number:	L3795RE				K9598RE				K9601RE				A1FF3RE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW7DRE				CF3MW8SRE				CF3MW9IRE				CF3SB10DRE			
Collect Date:	22-MAR-94				11-MAR-94				11-MAR-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	U	ug/kg	2.2
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	U	ug/kg	2.2
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	U	ug/kg	2.2
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	U	ug/kg	2.2
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	U	ug/kg	2.2
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	UJ	ug/kg	2.2
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	U	ug/kg	2.2
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	U	ug/kg	2.2
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	4.4	U	ug/kg	4.4
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	4.4	U	ug/kg	4.4
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	4.4	U	ug/kg	4.4
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	4.4	U	ug/kg	4.4
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	4.4	U	ug/kg	4.4
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	4.4	U	ug/kg	4.4
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	7.6	U	ug/kg	7.6
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	22	U	ug/kg	22
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	4.4	U	ug/kg	4.4
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	4.4	U	ug/kg	4.4
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	U	ug/kg	2.2
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	2.2	U	ug/kg	2.2
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5	220	U	ug/kg	220
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	44	U	ug/kg	44
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2	88	U	ug/kg	88
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	44	U	ug/kg	44
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	44	U	ug/kg	44
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	44	U	ug/kg	44
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	44	U	ug/kg	44
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	44	U	ug/kg	44

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- PESTICIDES AND PCBs

Lab Sample Number:	A1FEXRE				A1FF8RE				A1FFDRE				A1FFGRE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB10RE				CF3SB11RE				CF3SB12RE				CF3SB13RE			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.1	U	ug/kg	2.1	2.4	U	ug/kg	2.4	39		ug/kg	3	2.6	U	ug/kg	2.6
beta-BHC	2.1	U	ug/kg	2.1	2.4	U	ug/kg	2.4	2.7	U	ug/kg	2.7	2.6	U	ug/kg	2.6
delta-BHC	2.1	U	ug/kg	2.1	2.4	U	ug/kg	2.4	1.2	J	ug/kg	3	2.6	U	ug/kg	2.6
gamma-BHC (Lindane)	2.1	U	ug/kg	2.1	2.4	U	ug/kg	2.4	24		ug/kg	3	2.6	U	ug/kg	2.6
Heptachlor	2.1	U	ug/kg	2.1	2.4	U	ug/kg	2.4	2.7	U	ug/kg	2.7	2.6	U	ug/kg	2.6
Aldrin	2.1	UJ	ug/kg	2.1	2.4	U	ug/kg	2.4	2.7	UJ	ug/kg	2.7	2.6	UJ	ug/kg	2.6
Heptachlor epoxide	2.1	U	ug/kg	2.1	2.4	U	ug/kg	2.4	2.7	U	ug/kg	2.7	2.6	U	ug/kg	2.6
Endosulfan I	2.1	U	ug/kg	2.1	2.4	U	ug/kg	2.4	2.7	U	ug/kg	2.7	2.6	U	ug/kg	2.6
Dieldrin	4.1	U	ug/kg	4.1	4.6	U	ug/kg	4.6	5.2	U	ug/kg	5.2	5	U	ug/kg	5
4,4-DDE	4.1	U	ug/kg	4.1	1.4	J	ug/kg	4	5.2	U	ug/kg	5.2	5	U	ug/kg	5
Endrin	4.1	U	ug/kg	4.1	4.6	U	ug/kg	4.6	5.2	U	ug/kg	5.2	5	U	ug/kg	5
Endosulfan II	4.1	U	ug/kg	4.1	4.6	U	ug/kg	4.6	5.2	U	ug/kg	5.2	5	U	ug/kg	5
4,4-DDD	4.1	U	ug/kg	4.1	4.6	U	ug/kg	4.6	5.2	U	ug/kg	5.2	5	U	ug/kg	5
Endosulfan sulfate	4.1	U	ug/kg	4.1	4.6	U	ug/kg	4.6	5.2	U	ug/kg	5.2	5	U	ug/kg	5
4,4-DDT	4.2	U	ug/kg	4.2	58	J	ug/kg	4	7.5	U	ug/kg	7.5	8	U	ug/kg	8
Methoxychlor	21	U	ug/kg	21	24	U	ug/kg	24	27	U	ug/kg	27	26	U	ug/kg	26
Endrin ketone	4.1	U	ug/kg	4.1	4.6	U	ug/kg	4.6	5.2	U	ug/kg	5.2	5	U	ug/kg	5
Endrin aldehyde	4.1	U	ug/kg	4.1	4.6	U	ug/kg	4.6	5.2	U	ug/kg	5.2	5	U	ug/kg	5
alpha-Chlordane	2.1	U	ug/kg	2.1	2.4	U	ug/kg	2.4	2.7	U	ug/kg	2.7	2.6	U	ug/kg	2.6
gamma-Chlordane	2.1	U	ug/kg	2.1	2.4	U	ug/kg	2.4	2.7	U	ug/kg	2.7	2.6	U	ug/kg	2.6
Toxaphene	210	U	ug/kg	210	240	U	ug/kg	240	270	U	ug/kg	270	260	U	ug/kg	260
Aroclor-1016	41	U	ug/kg	41	46	U	ug/kg	46	52	U	ug/kg	52	50	U	ug/kg	50
Aroclor-1221	83	U	ug/kg	83	93	U	ug/kg	93	100	U	ug/kg	100	100	U	ug/kg	100
Aroclor-1232	41	U	ug/kg	41	46	U	ug/kg	46	52	U	ug/kg	52	50	U	ug/kg	50
Aroclor-1242	41	U	ug/kg	41	46	U	ug/kg	46	52	U	ug/kg	52	50	U	ug/kg	50
Aroclor-1248	41	U	ug/kg	41	46	U	ug/kg	46	52	U	ug/kg	52	50	U	ug/kg	50
Aroclor-1254	41	U	ug/kg	41	46	U	ug/kg	46	52	U	ug/kg	52	50	U	ug/kg	50
Aroclor-1260	41	U	ug/kg	41	46	U	ug/kg	46	52	U	ug/kg	52	50	U	ug/kg	50

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- PESTICIDES AND PCBs

Lab Sample Number:	A1FDTRE				A1FE2RE				A1FE9RE				A1GLWRE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SB7RE				CF3SB8RE				CF3SB9RE				CF3SD1RE			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				21-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.2	U	ug/kg	2.2	2.3	UJ	ug/kg	2.3
beta-BHC	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.2	U	ug/kg	2.2	2.3	UJ	ug/kg	2.3
delta-BHC	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.2	U	ug/kg	2.2	2.3	UJ	ug/kg	2.3
gamma-BHC (Lindane)	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.2	U	ug/kg	2.2	2.3	UJ	ug/kg	2.3
Heptachlor	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.2	U	ug/kg	2.2	2.3	UJ	ug/kg	2.3
Aldrin	2.2	R	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.2	R	ug/kg	2.2	2.3	UJ	ug/kg	2.3
Heptachlor epoxide	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.2	U	ug/kg	2.2	2.3	UJ	ug/kg	2.3
Endosulfan I	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.2	U	ug/kg	2.2	2.3	UJ	ug/kg	2.3
Dieldrin	4.2	UJ	ug/kg	4.2	4.4	UJ	ug/kg	4.4	4.3	U	ug/kg	4.3	4.5	UJ	ug/kg	4.5
4,4-DDE	4.2	UJ	ug/kg	4.2	4.4	UJ	ug/kg	4.4	4.3	U	ug/kg	4.3	.52	J	ug/kg	4
Endrin	4.2	UJ	ug/kg	4.2	4.4	UJ	ug/kg	4.4	4.3	U	ug/kg	4.3	4.5	UJ	ug/kg	4.5
Endosulfan II	4.2	UJ	ug/kg	4.2	4.4	UJ	ug/kg	4.4	4.3	U	ug/kg	4.3	4.5	UJ	ug/kg	4.5
4,4-DDD	4.2	UJ	ug/kg	4.2	4.4	UJ	ug/kg	4.4	4.3	U	ug/kg	4.3	4.5	UJ	ug/kg	4.5
Endosulfan sulfate	4.2	UJ	ug/kg	4.2	4.4	UJ	ug/kg	4.4	4.3	U	ug/kg	4.3	4.5	UJ	ug/kg	4.5
4,4-DDT	4.2	UJ	ug/kg	4.2	4.4	UJ	ug/kg	4.4	4.3	U	ug/kg	4.3	4.4	J	ug/kg	4
Methoxychlor	22	UJ	ug/kg	22	23	UJ	ug/kg	23	22	U	ug/kg	22	23	UJ	ug/kg	23
Endrin ketone	4.2	UJ	ug/kg	4.2	4.4	UJ	ug/kg	4.4	4.3	U	ug/kg	4.3	4.5	UJ	ug/kg	4.5
Endrin aldehyde	4.2	UJ	ug/kg	4.2	4.4	UJ	ug/kg	4.4	4.3	U	ug/kg	4.3	4.5	UJ	ug/kg	4.5
alpha-Chlordane	2.2	UJ	ug/kg	2.2	.21	J	ug/kg	2	2.2	U	ug/kg	2.2	2.3	UJ	ug/kg	2.3
gamma-Chlordane	2.2	UJ	ug/kg	2.2	2.3	UJ	ug/kg	2.3	2.2	U	ug/kg	2.2	2.3	UJ	ug/kg	2.3
Toxaphene	220	UJ	ug/kg	220	230	UJ	ug/kg	230	220	U	ug/kg	220	230	UJ	ug/kg	230
Aroclor-1016	42	UJ	ug/kg	42	44	UJ	ug/kg	44	43	U	ug/kg	43	45	UJ	ug/kg	45
Aroclor-1221	86	UJ	ug/kg	86	90	UJ	ug/kg	90	88	U	ug/kg	88	91	UJ	ug/kg	91
Aroclor-1232	42	UJ	ug/kg	42	44	UJ	ug/kg	44	43	U	ug/kg	43	45	UJ	ug/kg	45
Aroclor-1242	42	UJ	ug/kg	42	44	UJ	ug/kg	44	43	U	ug/kg	43	45	UJ	ug/kg	45
Aroclor-1248	42	UJ	ug/kg	42	44	UJ	ug/kg	44	43	U	ug/kg	43	45	UJ	ug/kg	45
Aroclor-1254	42	UJ	ug/kg	42	44	UJ	ug/kg	44	43	U	ug/kg	43	45	UJ	ug/kg	45
Aroclor-1260	42	UJ	ug/kg	42	44	UJ	ug/kg	44	43	U	ug/kg	43	45	UJ	ug/kg	45

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NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- PESTICIDES AND PCBs

Lab Sample Number:	A1FEHRE				A1FEERE				A1FF5RE				A1FFARE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS10DRE				CF3SS10RE				CF3SS11RE				CF3SS12RE			
Collect Date:	19-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2	U	ug/kg	2	2	U	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
beta-BHC	2	U	ug/kg	2	2	U	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
delta-BHC	2	U	ug/kg	2	2	U	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
gamma-BHC (Lindane)	2	U	ug/kg	2	2	U	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
Heptachlor	2	U	ug/kg	2	2	U	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
Aldrin	2	R	ug/kg	2	2	R	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
Heptachlor epoxide	2	U	ug/kg	2	2	U	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
Endosulfan I	2	U	ug/kg	2	2	U	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
Dieldrin	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
4,4-DDE	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
Endrin	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
Endosulfan II	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
4,4-DDD	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
Endosulfan sulfate	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
4,4-DDT	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8	6.8	U	ug/kg	6.8	6.2	U	ug/kg	6.2
Methoxychlor	20	U	ug/kg	20	20	U	ug/kg	20	25	U	ug/kg	25	25	U	ug/kg	25
Endrin ketone	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
Endrin aldehyde	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8	4.8	U	ug/kg	4.8	4.8	U	ug/kg	4.8
alpha-Chlordane	.12	J	ug/kg	2	2	U	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
gamma-Chlordane	2	U	ug/kg	2	2	U	ug/kg	2	2.5	U	ug/kg	2.5	2.5	U	ug/kg	2.5
Toxaphene	200	U	ug/kg	200	200	U	ug/kg	200	250	U	ug/kg	250	250	U	ug/kg	250
Aroclor-1016	39	U	ug/kg	39	38	U	ug/kg	38	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1221	79	U	ug/kg	79	77	U	ug/kg	77	98	U	ug/kg	98	98	U	ug/kg	98
Aroclor-1232	39	U	ug/kg	39	38	U	ug/kg	38	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1242	39	U	ug/kg	39	38	U	ug/kg	38	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1248	39	U	ug/kg	39	38	U	ug/kg	38	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1254	39	U	ug/kg	39	10	J	ug/kg	38	48	U	ug/kg	48	48	U	ug/kg	48
Aroclor-1260	39	U	ug/kg	39	38	U	ug/kg	38	48	U	ug/kg	48	48	U	ug/kg	48

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- PESTICIDES AND PCBs

Lab Sample Number:	A1FFERE			A1FFPRE			A1FFRRE			A1FG8RE		
Site	CECIL8			CECIL8			CECIL8			CECIL8		
Locator	CF3SS13RE			CF3SS14RE			CF3SS15RE			CF3SS19RE		
Collect Date:	19-NOV-94			19-NOV-94			19-NOV-94			19-NOV-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
beta-BHC	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
delta-BHC	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
gamma-BHC (Lindane)	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
Heptachlor	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
Aldrin	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
Heptachlor epoxide	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
Endosulfan I	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
Dieldrin	4.8 U	ug/kg	4.8	4.2 U	ug/kg	4.2	4.4 U	ug/kg	4.4	4 R	ug/kg	4
4,4-DDE	4.8 U	ug/kg	4.8	4.2 U	ug/kg	4.2	4.4 U	ug/kg	4.4	4 R	ug/kg	4
Endrin	4.8 U	ug/kg	4.8	4.2 U	ug/kg	4.2	4.4 U	ug/kg	4.4	4 R	ug/kg	4
Endosulfan II	4.8 U	ug/kg	4.8	4.2 U	ug/kg	4.2	4.4 U	ug/kg	4.4	4 R	ug/kg	4
4,4-DDD	4.8 U	ug/kg	4.8	4.2 U	ug/kg	4.2	4.4 U	ug/kg	4.4	4 R	ug/kg	4
Endosulfan sulfate	4.8 U	ug/kg	4.8	4.2 U	ug/kg	4.2	4.4 U	ug/kg	4.4	4 R	ug/kg	4
4,4-DDT	5.1 U	ug/kg	5.1	4.2 U	ug/kg	4.2	5.8 U	ug/kg	5.8	4 R	ug/kg	4
Methoxychlor	25 U	ug/kg	25	21 U	ug/kg	21	23 U	ug/kg	23	21 R	ug/kg	21
Endrin ketone	4.8 U	ug/kg	4.8	4.2 U	ug/kg	4.2	4.4 U	ug/kg	4.4	4 R	ug/kg	4
Endrin aldehyde	4.8 U	ug/kg	4.8	4.2 U	ug/kg	4.2	4.4 U	ug/kg	4.4	4 R	ug/kg	4
alpha-Chlordane	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
gamma-Chlordane	2.5 U	ug/kg	2.5	2.1 U	ug/kg	2.1	2.3 U	ug/kg	2.3	2.1 R	ug/kg	2.1
Toxaphene	250 U	ug/kg	250	210 U	ug/kg	210	230 U	ug/kg	230	210 R	ug/kg	210
Aroclor-1016	48 U	ug/kg	48	42 U	ug/kg	42	44 U	ug/kg	44	40 R	ug/kg	40
Aroclor-1221	98 U	ug/kg	98	85 U	ug/kg	85	90 U	ug/kg	90	82 R	ug/kg	82
Aroclor-1232	48 U	ug/kg	48	42 U	ug/kg	42	44 U	ug/kg	44	40 R	ug/kg	40
Aroclor-1242	48 U	ug/kg	48	42 U	ug/kg	42	44 U	ug/kg	44	40 R	ug/kg	40
Aroclor-1248	48 U	ug/kg	48	42 U	ug/kg	42	44 U	ug/kg	44	40 R	ug/kg	40
Aroclor-1254	48 U	ug/kg	48	42 U	ug/kg	42	44 U	ug/kg	44	40 R	ug/kg	40
Aroclor-1260	48 U	ug/kg	48	42 U	ug/kg	42	44 U	ug/kg	44	40 R	ug/kg	40

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 8 -- SITE 3
RE-EXTRACTION & DILUTION -- PESTICIDES AND PCBs

Lab Sample Number:	A1FGFRE				A1FDQRE				A1FDXRE				A1FE4RE			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3SS20DRE				CF3SS7RE				CF3SS8RE				CF3SS9RE			
Collect Date:	20-NOV-94				19-NOV-94				19-NOV-94				19-NOV-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2.4	R	ug/kg	2.4	2	UJ	ug/kg	2	2.5	UJ	ug/kg	2.5	2.1	U	ug/kg	2.1
beta-BHC	2.4	R	ug/kg	2.4	2	UJ	ug/kg	2	2.5	UJ	ug/kg	2.5	2.1	U	ug/kg	2.1
delta-BHC	2.4	R	ug/kg	2.4	2	UJ	ug/kg	2	2.5	UJ	ug/kg	2.5	2.1	U	ug/kg	2.1
gamma-BHC (Lindane)	2.4	R	ug/kg	2.4	2	UJ	ug/kg	2	2.5	UJ	ug/kg	2.5	2.1	U	ug/kg	2.1
Heptachlor	2.4	R	ug/kg	2.4	2	UJ	ug/kg	2	2.5	UJ	ug/kg	2.5	2.1	U	ug/kg	2.1
Aldrin	2.4	R	ug/kg	2.4	2	R	ug/kg	2	2.5	R	ug/kg	2	2.1	R	ug/kg	2.1
Heptachlor epoxide	2.4	R	ug/kg	2.4	2	UJ	ug/kg	2	2.5	UJ	ug/kg	2.5	2.1	U	ug/kg	2.1
Endosulfan I	2.4	R	ug/kg	2.4	2	UJ	ug/kg	2	2.5	UJ	ug/kg	2.5	2.1	U	ug/kg	2.1
Dieldrin	4.6	R	ug/kg	4.6	3.9	UJ	ug/kg	3.9	4.8	UJ	ug/kg	4.8	4.1	U	ug/kg	4.1
4,4-DDE	4.6	R	ug/kg	4.6	3.9	UJ	ug/kg	3.9	4.8	UJ	ug/kg	4.8	4.1	U	ug/kg	4.1
Endrin	4.6	R	ug/kg	4.6	3.9	UJ	ug/kg	3.9	4.8	UJ	ug/kg	4.8	4.1	U	ug/kg	4.1
Endosulfan II	4.6	R	ug/kg	4.6	3.9	UJ	ug/kg	3.9	4.8	UJ	ug/kg	4.8	4.1	U	ug/kg	4.1
4,4-DDD	4.6	R	ug/kg	4.6	3.9	UJ	ug/kg	3.9	4.8	UJ	ug/kg	4.8	4.1	U	ug/kg	4.1
Endosulfan sulfate	4.6	R	ug/kg	4.6	3.9	UJ	ug/kg	3.9	4.8	UJ	ug/kg	4.8	4.1	U	ug/kg	4.1
4,4-DDT	2.1	R	ug/kg	5	3.9	UJ	ug/kg	3.9	4.8	UJ	ug/kg	4.8	4.1	U	ug/kg	4.1
Methoxychlor	24	R	ug/kg	24	20	UJ	ug/kg	20	25	UJ	ug/kg	25	21	U	ug/kg	21
Endrin ketone	4.6	R	ug/kg	4.6	3.9	UJ	ug/kg	3.9	4.8	UJ	ug/kg	4.8	4.1	U	ug/kg	4.1
Endrin aldehyde	4.6	R	ug/kg	4.6	3.9	UJ	ug/kg	3.9	4.8	UJ	ug/kg	4.8	4.1	U	ug/kg	4.1
alpha-Chlordane	2.4	R	ug/kg	2.4	.25	J	ug/kg	2	2.5	UJ	ug/kg	2.5	.099	J	ug/kg	2
gamma-Chlordane	2.4	R	ug/kg	2.4	2	UJ	ug/kg	2	2.5	UJ	ug/kg	2.5	2.1	U	ug/kg	2.1
Toxaphene	240	R	ug/kg	240	200	UJ	ug/kg	200	250	UJ	ug/kg	250	210	U	ug/kg	210
Aroclor-1016	46	R	ug/kg	46	39	UJ	ug/kg	39	48	UJ	ug/kg	48	41	U	ug/kg	41
Aroclor-1221	94	R	ug/kg	94	79	UJ	ug/kg	79	97	UJ	ug/kg	97	83	U	ug/kg	83
Aroclor-1232	46	R	ug/kg	46	39	UJ	ug/kg	39	48	UJ	ug/kg	48	41	U	ug/kg	41
Aroclor-1242	46	R	ug/kg	46	39	UJ	ug/kg	39	48	UJ	ug/kg	48	41	U	ug/kg	41
Aroclor-1248	46	R	ug/kg	46	39	UJ	ug/kg	39	48	UJ	ug/kg	48	41	U	ug/kg	41
Aroclor-1254	46	R	ug/kg	46	39	UJ	ug/kg	39	48	UJ	ug/kg	48	41	U	ug/kg	41
Aroclor-1260	46	R	ug/kg	46	39	UJ	ug/kg	39	48	UJ	ug/kg	48	41	U	ug/kg	41

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APPENDIX E

USEPA REGION III RISK BASED CONCENTRATION TABLE

United States
Environmental Protection Agency

Region III
Philadelphia, PA 19107

EPA903-F-94-001
February 1994

Region III
Technical Guidance Manual
Risk Assessment

Use of Monte Carlo Simulation in Risk Assessments

EPA Contact: Dr. Roy L. Smith

EPA
Region III

Hazardous Waste Management Division
Office of Superfund Programs
February 1994

EPA's current risk assessment methods express health risks as single numerical values, or "single-point" estimates of risk. This technique provides little information about uncertainty and variability surrounding the risk estimate. Recent EPA guidance (EPA, 1992) recommends developing "multiple descriptors" of risk to provide more complete information to Agency decision-makers and the public. Monte Carlo simulation is a highly effective way to produce these multiple risk descriptors. This document recommends guidelines under which Region III risk assessors may accept the optional use of Monte Carlo simulation to develop multiple descriptors of risk. *The Region will continue to require single-point risk estimates, prepared under current national guidance, in conjunction with optional Monte Carlo simulations.*

SINGLE RISK ESTIMATES VS. MULTIPLE DESCRIPTORS

EPA designed its human health risk assessment guidance (*e.g.*, EPA, 1991, 1989 and 1988) to produce protective, rather than best, estimates of risk. EPA is aware that true risks are probably less than its estimates, but has chosen a regulatory policy of giving the benefit of uncertainty surrounding the risk assessment to the exposed public.

These protective risk estimates sometimes create difficulty for Agency decision-makers and the public. Site-specific Regional risk assessments usually present risk as a single number, or single-point estimate, accompanied by a qualitative discussion of uncertainty. The public tends to focus on the single-point estimate and to overlook the uncertainty, which may span several orders of magnitude. EPA risk managers, though aware of the uncertainty, must still justify their decision to either accept or reduce the single-point risk. If the risk is close to the maximum acceptable level, it is likely that different assumptions would have produced a different risk number, leading to a different decision. In this way, single-point risk assessment methods place the risk assessor in an inappropriate risk management role.

Recent EPA guidance on risk characterization (EPA, 1992) discusses this problem in depth, and recommends the use of multiple risk descriptors in addition to protective single-point risk estimates. Inclusion of these additional risk descriptors provides the public with more complete information on the likelihood of various risk levels, and risk managers with multiple risk-based cleanup goals from which to choose. This guidance mentions Monte Carlo simulation as an effective source of multiple risk descriptors.

MONTE CARLO SIMULATION

Monte Carlo simulation is a statistical technique by which a quantity is calculated repeatedly, using randomly selected "what-if" scenarios for each calculation. Though the simulation process is internally complex, commercial computer software performs the calculations as a single operation, presenting results in simple graphs and tables. These results approximate the full range of possible outcomes, and the likelihood of each. When Monte Carlo simulation is applied to risk assessment, risk appears as a frequency distribution graph similar to the familiar bell-shaped curve, which non-statisticians can understand intuitively.

3. Include only exposure variables in the Monte Carlo simulation. Enter reference doses and carcinogenic slope factors as single numbers, except for specific contaminants for which the EPA Office of Research and Development has already approved frequency distributions.

4. Include only significant exposure scenarios and contaminants in the Monte Carlo simulation. First, calculate RME risks for all exposure routes under current guidance. Select exposure routes for which RME risk exceeds either 1e-6 cancer risk or a non-carcinogenic hazard index of 1. Include only contaminants which contribute 1% or more of the total RME risk or hazard index.

5. *Use Monte Carlo simulation only to analyze uncertainty and variability, as a "multiple descriptor" of risk. Include standard RME risk estimates in all graphs and tables of Monte Carlo results. Generate deterministic risks using current EPA national guidance (EPA 1992, 1991, 1989, and 1988).*

6. Include graphs and tables showing and describing each input distribution, distributions of risk for each exposure route, and distributions of total risk (summed across exposure pathways and age groups, as appropriate under current guidance).

Region III will not accept Monte Carlo simulations which are not approved beforehand, or do not adhere to these guidelines.

SUMMARY

Region III will accept Monte Carlo simulations that conform to the guidelines in this document, as part of baseline human health risk assessments. The most important guideline is that all risk assessments must include single-point RME risk estimates prepared under current EPA national guidance. The Region will accept Monte Carlo simulation only as an optional addition to, not a substitute for, current risk assessment methods.

REFERENCES

EPA, 1992. Guidance on Risk Characterization for Risk Managers and Risk Assessors, (U.S. Environmental Protection Agency, Office of the Administrator, Washington, DC, memorandum from F. Henry Habicht on 26 February 1992).

EPA, 1991. Standard Default Exposure Factors, *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual Supplemental Guidance,* (U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response, Toxics Integration Branch, Washington, DC, OSWER Directive 9285:6-03).

EPA, 1989. *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part A),* (U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response, Toxics Integration Branch, Washington, DC, EPA/540/1-89/002).

EPA, 1988. *Exposure Factors Handbook,* (U.S. Environmental Protection Agency Office of Health and Environmental Assessment, Washington, DC, EPA/600/8-89/043).

Smith, R.L. In press. Use of Monte Carlo simulation for human exposure at a Superfund site. Submitted to *Risk Analysis*, May 1993.

For additional information, call (215) 597-6682.

Approved by:

Thomas C. Voltaggio, Director
Hazardous Waste Management Division

United States Environmental Protection Agency | Region III Philadelphia, PA 19107 | EPA/903/R-93-001 January 1993

Region III
Technical Guidance Manual
Risk Assessment

Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening

EPA Contact: Dr. Roy L. Smith

EPA
Region III

Hazardous Waste Management Division
Office of Superfund Programs
January 1993

Human health risk assessment includes effort-intensive steps which require many detailed calculations by experts. Most baseline risk assessments are dominated by a few chemicals and a few routes of exposure. Effort expended on minor contaminants and exposure routes, i.e., those which do not influence overall risk, is essentially wasted. This guidance is intended to identify and focus on dominant contaminants of concern and exposure routes at the earliest feasible point in the baseline risk assessment. Use of these methods will decrease effort and time spent assessing risk, without loss of protectiveness. This guidance is not intended for other risk assessment activities, such as determining preliminary remediation goals.

SELECTING CONTAMINANTS AND EXPOSURE ROUTES OF CONCERN

Most samples from hazardous waste sites are analyzed for 103 target compounds and analytes recommended by the EPA Superfund program. Semi-volatile analysis can detect additional tentatively identified compounds not on the target lists. Special analytical services procedures, if used, may find still more contaminants. The combined number of contaminants detected at a site sometimes exceeds one hundred.

While EPA considers it necessary to gather information on many contaminants, very little of this data actually influences the overall quantitative assessment of health risk. For most sites, baseline risk assessments are dominated by a few contaminants and a few routes of exposure. The remaining tens, or hundreds, of detected contaminants have a minimal influence on total risk. This small impact is lost by rounding. Entire environmental media may contain not a single contaminant at a concentration which could adversely affect public health. Quantitative risk calculations using data from such "risk-free" media have no effect on the overall risk estimate for the site.

The EPA baseline risk assessment process at several points requires careful data evaluation by scientific experts. These evaluations, which are contaminant-specific, include: (1) statistical comparisons between site-related and background samples, (2) special handling of undetected contaminants, (3) calculation of toxicity equivalence, (4) evaluation of frequency of detection, and (5) comparison with ARARs. Because overall risk is usually driven by a few contaminants and exposure routes, effort spent in detailed evaluation of minor contaminants and routes of exposure is essentially wasted. For some sites, this wasted effort exceeds 90% of the total.

The baseline risk assessment process can be made more efficient by focusing on dominant contaminants and routes of exposure at the earliest feasible stage. The mechanisms recommended for this are (1) a re-ordering of the process of eliminating contaminants and routes of exposure, and (2) use of a risk-based concentration screen. Appropriately used, this process can dramatically reduce the effort of risk assessment, while not changing the result significantly.

EXISTING GUIDANCE

Chapter 5 of "RAGS IA" (Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A); EPA, 1989) provides a detailed procedure for evaluating data for a baseline risk assessment. This

based concentrations. Similarly, the risk assessor can use the same equations to calculate alternate risk levels (i.e., other than a systemic hazard quotient of 0.1 and lifetime cancer risk of 10^{-6}) to be the basis for screening.

SUMMARY

The process by which contaminants and exposure routes are selected in quantitative risk assessment can be made less effort-intensive by two simple changes. First, high-effort steps should be postponed until later in the selection process, because performing these operations on trivial contaminants and exposure routes is pointless. Second, changing from a relative concentration toxicity screen to an absolute risk-based concentration screen improves the risk assessor's ability to focus on dominant contaminants and exposure routes at an earlier stage.

REFERENCES

EPA, 1991. Human Health Evaluation Manual, Supplemental Guidance: "Standard Default Exposure Factors". OSWER Directive 9285.6-03, Office of Emergency and Remedial Response, March 25, 1991.

EPA, 1989. Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A). Office of Emergency and Remedial Response, December, 1989. EPA/540/1-89/002.

For additional information, call (215) 597-6682.

Approved by: _____

Thomas C. Voltaggio, Director
Hazardous Waste Management Division

Table 2. EPA Region III guidance on selecting contaminants and exposure routes of concern
A. Data quality evaluation
1. Determine if methods are appropriate
2. Determine if qualifiers are appropriate
3. Determine if significant blank contamination exists
4. Determine if special analyses for tentatively identified compounds are needed
B. Reduce data set using risk-based concentration screen
5. Consult with RPM
6. Use risk-based concentration table to screen contaminants and exposure routes of concern
7. Document rationale for eliminating chemicals and exposure routes
C. Consider re-including eliminated chemicals and routes, based on:
8. Historical information
9. Exceptional toxicity, mobility, persistence, or bioaccumulation
10. Special exposure routes
11. Special treatability problems
12. ARARs exceedance
13. Toxicity equivalence of chemical class (*e.g.*, CDD/CDFs, PAHs)
D. Make further specific reductions in data set (optional)
14. Evaluate essentiality
15. Evaluate frequency of detection
16. Compare site samples to background

VARIABLE	UNITS	VALUE	LABEL
Exposure duration, age 1-6	y	6	EDc
Volatilization factor	L/m3	0.5	VF
3-Occupational			
Exposure frequency, occupational	d/y	250	EFo
Exposure duration, occupational	y	25	EDo
* = Contaminant-specific toxicity parameters			

The priority among sources of toxicological constants was as follows: (1) IRIS, (2) HEAST, (3) HEAST alternative method, (4) ECAO-Cincinnati, (5) withdrawn from IRIS, (6) withdrawn from HEAST, and (7) other EPA documents. Each source was used only if numbers from higher-priority sources were unavailable.

Algorithms:

1. Age-adjusted factors: Because contact rates with tap water, ambient air, and residential soil are different for children and adults, carcinogenic risks during the first 30 years of life were calculated using age-adjusted factors. These factors approximated the integrated exposure from birth until age 30 by combining contact rates, body weights, and exposure durations for two age groups - small children and adults. The age-adjusted factor for soil was obtained from RAGS IB; the others were developed by analogy.

a. Air inhalation ($[m^3 \cdot y]/[kg \cdot d]$):

$$IFAadj = \frac{EDc \cdot IRAc}{BWc} + \frac{(EDtot - EDc) \cdot IRAa}{BWa}$$

b. Tap water ingestion ($[L \cdot y]/[kg \cdot d]$):

$$IFWadj = \frac{EDc \cdot IRWc}{BWc} + \frac{(EDtot - EDc) \cdot IRWa}{BWa}$$

c. Soil ingestion ($[mg \cdot y]/[kg \cdot d]$):

$$IFSadj = \frac{EDc \cdot IRSc}{BWc} + \frac{(EDtot - EDc) \cdot IRSa}{BWa}$$

b. Non-carcinogens: Calculations were based on adult exposure.

$$\frac{THQ \cdot RfDo \cdot BWa \cdot ATn}{EFr \cdot EDtot \cdot \frac{IRF}{1000\frac{g}{kg}}}$$

5. Soil commercial/industrial (mg/kg): The default exposure assumption that only 50% of incidental soil ingestion occurs at work has been omitted. Calculations were based on adult occupational exposure.

a. Carcinogens:

$$\frac{TR \cdot BWa \cdot ATc}{EFo \cdot EDo \cdot \frac{IRSa}{10^6 \frac{mg}{kg}} \cdot CPSo}$$

b. Non-carcinogens:

$$\frac{THQ \cdot RfDo \cdot BWa \cdot ATn}{EFo \cdot EDo \cdot \frac{IRSa}{10^6 \frac{mg}{kg}}}$$

6. Soil residential (mg/kg):

a. Carcinogens: Calculations were based on combined childhood and adult exposure.

$$\frac{TR \cdot ATc}{EFr \cdot \frac{IFSadj}{10^6 \frac{mg}{kg}} \cdot CPSo}$$

b. Non-carcinogens: Calculations were based on childhood exposure only.

$$\frac{THQ \cdot RfDo \cdot BWc \cdot ATn}{EFr \cdot EDc \cdot \frac{IRSc}{10^6 \frac{mg}{kg}}}$$

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Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg•d/mg	CPSi kg•d/mg	VOC	MCL mg/L	Tap water µg/L	Ambient air µg/m3	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
Assure	76578148	9.00E-03 *i*						33 *n*	3.3 *n*	1.2 *n*	920 *n*	70 *n*
Asulam	3337711	5.00E-02 *i*						180 *n*	18 *n*	6.8 *n*	5100 *n*	390 *n*
Atrazine	1912249	3.50E-02 *i*		2.22E-01 *h*			0.003 *F*	0.3 *c*	0.028 *c*	0.014 *c*	13 *c*	2.9 *c*
Avermectin B1	65195553	4.00E-04 *i*						1.5 *n*	0.15 *n*	0.054 *n*	41 *n*	3.1 *n*
Azobenzene	103333			1.10E-01 *i*	1.08E-01 *i*			0.61 *c*	0.058 *c*	0.029 *c*	26 *c*	5.8 *c*
Barium and compounds	7440393	7.00E-02 *i*	1.43E-04 *h*				2 *F*	260 *n*	0.052 *n*	9.5 *n*	7200 *n*	550 *n*
Baygon	114261	4.00E-03 *i*						15 *n*	1.5 *n*	0.54 *n*	410 *n*	31 *n*
Bayleton	43121433	3.00E-02 *i*						110 *n*	11 *n*	4.1 *n*	3100 *n*	230 *n*
Baythroid	68359375	2.50E-02 *i*						91 *n*	9.1 *n*	3.4 *n*	2600 *n*	200 *n*
Benefin	1861401	3.00E-01 *i*						1100 *n*	110 *n*	41 *n*	31000 *n*	2300 *n*
Benomyl	17804352	5.00E-02 *i*						180 *n*	18 *n*	6.8 *n*	5100 *n*	390 *n*
Bentazon	25057890	2.50E-03 *i*						9.1 *n*	0.91 *n*	0.34 *n*	260 *n*	20 *n*
Benzaldehyde	100527	1.00E-01 *i*				•••		61 *n*	37 *n*	14 *n*	10000 *n*	780 *n*
Benzene	71432		1.43E-04 *e*	2.90E-02 *i*	2.90E-02 *i*	•••	0.005 *F*	0.087 *n*	0.052 *n*	0.11 *c*	99 *c*	22 *c*
Benzidine	92875	3.00E-03 *i*		2.30E+02 *i*	2.35E+02 *i*			0.00029 *c*	0.00003 *c*	0.00001 *c*	0.012 *c*	0.0028 *c*
Benzoic acid	65850	4.00E+00 *i*						15000 *n*	1500 *n*	540 *n*	410000 *n*	31000 *n*
Benzotrichloride	98077			1.30E+01 *i*				0.0052 *c*	0.00048 *c*	0.00024 *c*	0.22 *c*	0.049 *c*
Benzyl alcohol	100516	3.00E-01 *h*						1100 *n*	110 *n*	41 *n*	31000 *n*	2300 *n*
Benzyl chloride	100447			1.70E-01 *i*		•••		0.062 *c*	0.037 *c*	0.019 *c*	17 *c*	3.8 *c*
Beryllium and compounds	7440417	5.00E-03 *i*		4.30E+00 *i*	8.40E+00 *i*		0.004 *F*	0.016 *c*	0.00075 *c*	0.00073 *c*	0.67 *c*	0.15 *c*
Bidrin	141662	1.00E-04 *i*						0.37 *n*	0.037 *n*	0.014 *n*	10 *n*	0.78 *n*
Biphenthrin (Talstar)	82657043	1.50E-02 *i*						55 *n*	5.5 *n*	2 *n*	1500 *n*	120 *n*
1,1-Biphenyl	92524	5.00E-02 *i*						180 *n*	18 *n*	6.8 *n*	5100 *n*	390 *n*
Bis(2-chloroethyl)ether	111444			1.10E+00 *i*	1.16E+00 *i*	•••		0.0092 *c*	0.0054 *c*	0.0029 *c*	2.6 *c*	0.58 *c*
Bis(2-chloroisopropyl)ether	39638329	4.00E-02 *i*		7.00E-02 *h*	3.50E-02 *h*	•••		0.26 *c*	0.18 *c*	0.045 *c*	41 *c*	9.1 *c*
Bis(chloromethyl)ether	542881			2.20E+02 *i*	2.17E+02 *i*	•••		0.00005 *c*	0.00003 *c*	0.00001 *c*	0.013 *c*	0.0029 *c*
Bis(2-chloro-1-methylethyl)ether				7.00E-02 *w*	7.00E-02 *w*			0.96 *c*	0.089 *c*	0.045 *c*	41 *c*	9.1 *c*
Bis(2-ethylhexyl)phthalate (DEHP)	117817	2.00E-02 *i*		1.40E-02 *i*			0.006 *F*	4.8 *c*	0.45 *c*	0.23 *c*	200 *c*	46 *c*
Bisphenol A	80057	5.00E-02 *i*						180 *n*	18 *n*	6.8 *n*	5100 *n*	390 *n*
Boron (and borates)	7440428	9.00E-02 *i*	5.71E-03 *h*					330 *n*	2.1 *n*	12 *n*	9200 *n*	700 *n*
Boron trifluoride	7637072		2.00E-04 *h*					0.73 *n*	0.073 *n*			
Bromodichloromethane	75274	2.00E-02 *i*		6.20E-02 *i*		•••	0.1 *T*	0.17 *c*	0.1 *c*	0.051 *c*	46 *c*	10 *c*
Bromoethene	593602				1.10E-01 *h*	•••		0.096 *c*	0.057 *c*			
Bromoform (tribromomethane)	75252	2.00E-02 *i*		7.90E-03 *i*	3.85E-03 *i*	•••	0.1 *T*	2.4 *c*	1.6 *c*	0.4 *c*	360 *c*	81 *c*
Bromomethane	74839	1.40E-03 *i*	1.43E-03 *i*			•••		0.87 *n*	0.52 *n*	0.19 *n*	140 *n*	11 *n*
4-Bromophenyl phenyl ether	101553	5.80E-02 *o*						210 *n*	21 *n*	7.8 *n*	5900 *n*	450 *n*
Bromophos	2104963	5.00E-03 *h*						18 *n*	1.8 *n*	0.68 *n*	510 *n*	39 *n*
Bromoxynil	1689845	2.00E-02 *i*						73 *n*	7.3 *n*	2.7 *n*	2000 *n*	160 *n*
Bromoxynil octanoate	1689992	2.00E-02 *i*						73 *n*	7.3 *n*	2.7 *n*	2000 *n*	160 *n*

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Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg•d/mg	CPSi kg•d/mg	VOC	MCL mg/L	Tap water µg/L	Ambient air µg/m3	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
Chloromethane	74873			1.30E-02 h	6.30E-03 h	•••		1.4 c	0.99 c	0.24 c	220 c	49 c
4-Chloro-2,2-methylaniline hydrochloride	3165933			4.60E-01 h				0.15 c	0.014 c	0.0069 c	6.2 c	1.4 c
4-Chloro-2-methylaniline	95692			5.80E-01 h				0.12 c	0.011 c	0.0054 c	4.9 c	1.1 c
beta-Chloronaphthalene	91587	8.00E-02 i						290 n	29 n	11 n	8200 n	630 n
o-Chloronitrobenzene	88733			2.50E-02 h		•••		0.42 c	0.25 c	0.13 c	110 c	26 c
p-Chloronitrobenzene	121733			1.80E-02 h		•••		0.59 c	0.35 c	0.18 c	160 c	35 c
2-Chlorophenol	95578	5.00E-03 i						18 n	1.8 n	0.68 n	510 n	39 n
2-Chloropropane	75296		2.86E-02 h			•••		17 n	10 n			
Chlorothalonil	1897456	1.50E-02 i		1.10E-02 h				6.1 c	0.57 c	0.29 c	260 c	58 c
o-Chlorotoluene	95498	2.00E-02 i				•••		12 n	7.3 n	2.7 n	2000 n	160 n
Chlorpropham	101213	2.00E-01 i						730 n	73 n	27 n	20000 n	1600 n
Chlorpyrifos	2921882	3.00E-03 i						11 n	1.1 n	0.41 n	310 n	23 n
Chlorpyrifos-methyl	5598130	1.00E-02 h						37 n	3.7 n	1.4 n	1000 n	78 n
Chlorsulfuron	64902723	5.00E-02 i						180 n	18 n	6.8 n	5100 n	390 n
Chlorthiophos	60238564	8.00E-04 h						2.9 n	0.29 n	0.11 n	82 n	6.3 n
Chromium III and compounds	16065831	1.00E+00 i	5.71E-07 w				0.1 F	3700 n	0.00021 n	140 n	100000 n	7800 n
Chromium VI and compounds	7440473	5.00E-03 i			4.20E+01 i		0.1 F	18 n	0.00015 c	0.68 n	510 n	39 n
Coal tar	8001589				2.20E+00 w				0.0028 c			
Coke Oven Emissions	8007452				2.17E+00 i				0.0029 c			
Copper and compounds	7440508	3.71E-02 h						140 n	14 n	5 n	3800 n	290 n
Crotonaldehyde	123739	1.00E-02 w		1.90E+00 h	1.90E+00 w			0.035 c	0.0033 c	0.0017 c	1.5 c	0.34 c
Cumene	98828	4.00E-02 i	2.57E-03 h					150 n	0.94 n	5.4 n	4100 n	310 n
Cyanides:							0.2 P					
Barium cyanide	542621	1.00E-01 h						370 n	37 n	14 n	10000 n	780 n
Calcium cyanide	592018	4.00E-02 i						150 n	15 n	5.4 n	4100 n	310 n
Copper cyanide	544923	5.00E-03 i						18 n	1.8 n	0.68 n	510 n	39 n
Cyanazine	21725462	2.00E-03 h		8.40E-01 h				0.08 c	0.0075 c	0.0038 c	3.4 c	0.76 c
Cyanogen	460195	4.00E-02 i						150 n	15 n	5.4 n	4100 n	310 n
Cyanogen bromide	506683	9.00E-02 i						330 n	33 n	12 n	9200 n	700 n
Cyanogen chloride	506774	5.00E-02 i						180 n	18 n	6.8 n	5100 n	390 n
Free cyanide	57125	2.00E-02 i						73 n	7.3 n	2.7 n	2000 n	160 n
Hydrogen cyanide	74908	2.00E-02 i						73 n	7.3 n	2.7 n	2000 n	160 n
Potassium cyanide	151508	5.00E-02 i						180 n	18 n	6.8 n	5100 n	390 n
Potassium silver cyanide	506616	2.00E-01 i						730 n	73 n	27 n	20000 n	1600 n
Silver cyanide	506649	1.00E-01 i						370 n	37 n	14 n	10000 n	780 n
Sodium cyanide	143339	4.00E-02 i						150 n	15 n	5.4 n	4100 n	310 n
Zinc cyanide	557211	5.00E-02 i						180 n	18 n	6.8 n	5100 n	390 n
Cyclohexanone	108941	5.00E+00 i				•••		3000 n	1800 n	680 n	510000 n	39000 n
Cyclohexlamine	108918	2.00E-01 i						730 n	73 n	27 n	20000 n	1600 n

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Dicyclopentadiene	77736	3.00E-02 h	5.71E-05 h			***		0.042 n	0.021 n	4.1 n	3100 n	230 n
Dieldrin	60571	5.00E-05 i		1.60E+01 i	1.61E+01 i			0.0042 c	0.00039 c	0.0002 c	0.18 c	0.04 c
Diesel emissions			1.43E-03 i					5.2 n	0.52 n			
Diethyl phthalate	84662	8.00E-01 i						2900 n	290 n	110 n	82000 n	6300 n
Diethylene glycol, monobutyl ether	112345		5.71E-03 h					21 n	2.1 n			
Diethylene glycol, monoethyl ether	111900	2.00E+00 h						7300 n	730 n	270 n	200000 n	16000 n
Diethylforamide	617845	1.10E-02 h						40 n	4 n	1.5 n	1100 n	86 n
Di(2-ethylhexyl)adipate	103231	6.00E-01 i		1.20E-03 i			0.4 F	56 c	5.2 c	2.6 c	2400 c	530 c
Diethylstilbestrol	56531			4.70E+03 h				0.00001 c	1E-06 c	7E-07 c	0.00061 c	0.00014 c
Difenzoquat (Avenge)	43222486	8.00E-02 i						290 n	29 n	11 n	8200 n	630 n
Diflubenzuron	35367385	2.00E-02 i						73 n	7.3 n	2.7 n	2000 n	160 n
Diisopropyl methylphosphonate (DIMP)	1445756	8.00E-02 i						290 n	29 n	11 n	8200 n	630 n
Dimethipin	55290647	2.00E-02 i						73 n	7.3 n	2.7 n	2000 n	160 n
Dimethoate	60515	2.00E-04 i						0.73 n	0.073 n	0.027 n	20 n	1.6 n
3,3'-Dimethoxybenzidine	119904			1.40E-02 h				4.8 c	0.45 c	0.23 c	200 c	46 c
Dimethyl phthalate	131113	1.00E+01 h						37000 n	3700 n	1400 n	1000000 n	78000 n
Dimethyl terephthalate	120616	1.00E-01 i						370 n	37 n	14 n	10000 n	780 n
Dimethylamine	124403		5.71E-06 w					0.021 n	0.0021 n			
2,4-Dimethylaniline hydrochloride	21436964			5.80E-01 h				0.12 o	0.011 c	0.0054 c	4.9 c	1.1 c
2,4-Dimethylaniline	95681			7.50E-01 h				0.09 c	0.0083 c	0.0042 c	3.8 c	0.85 c
N-N-Dimethylaniline	121697	2.00E-03 i						7.3 n	0.73 n	0.27 n	200 n	16 n
3,3'-Dimethylbenzidine	119937			9.20E+00 h				0.0073 c	0.00068 c	0.00034 c	0.31 c	0.069 c
N,N-Dimethylformamide	68122	1.00E-01 h	8.57E-03 i					370 n	3.1 n	14 n	10000 n	780 n
1,1-Dimethylhydrazine	57147			2.60E+00 h	3.50E+00 h			0.026 c	0.0018 c	0.0012 c	1.1 c	0.25 c
1,2-Dimethylhydrazine	540738			3.70E+01 w	3.70E+01 w			0.0018 c	0.00017 c	0.00009 c	0.077 c	0.017 c
2,4-Dimethylphenol	105679	2.00E-02 i						73 n	7.3 n	2.7 n	2000 n	160 n
2,6-Dimethylphenol	576261	6.00E-04 i						2.2 n	0.22 n	0.081 n	61 n	4.7 n
3,4-Dimethylphenol	95658	1.00E-03 i						3.7 n	0.37 n	0.14 n	100 n	7.8 n
1,2-Dinitrobenzene	528290	4.00E-04 h						1.5 n	0.15 n	0.054 n	41 n	3.1 n
1,3-Dinitrobenzene	99650	1.00E-04 i						0.37 n	0.037 n	0.014 n	10 n	0.78 n
1,4-Dinitrobenzene	100254	4.00E-04 h						1.5 n	0.15 n	0.054 n	41 n	3.1 n
4,6-Dinitro-o-cyclohexyl phenol	131895	2.00E-03 i						7.3 n	0.73 n	0.27 n	200 n	16 n
2,4-Dinitrophenol	51285	2.00E-03 i						7.3 n	0.73 n	0.27 n	200 n	16 n
Dinitrotoluene mixture				6.80E-01 i				0.099 o	0.0092 o	0.0046 o	4.2 o	0.94 c
2,4-Dinitrotoluene	121142	2.00E-03 i						7.3 n	0.73 n	0.27 n	200 n	16 n
2,6-Dinitrotoluene	606202	1.00E-03 h						3.7 n	0.37 n	0.14 n	100 n	7.8 n
Dinoseb	88857	1.00E-03 i					0.007 F	3.7 n	0.37 n	0.14 n	100 n	7.8 n
di-n-Octyl phthalate	117840	2.00E-02 h						73 n	7.3 n	2.7 n	2000 n	160 n
1,4-Dioxane	123911			1.10E-02 i				6.1 c	0.57 c	0.29 c	260 c	58 c

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Fluoridone	59756604	8.00E-02 *i*						290 *n*	29 *n*	11 *n*	8200 *n*	630 *n*
Flurprimidol	56425913	2.00E-02 *i*						73 *n*	7.3 *n*	2.7 *n*	2000 *n*	160 *n*
Flutolanil	66332965	6.00E-02 *i*						220 *n*	22 *n*	8.1 *n*	6100 *n*	470 *n*
Fluvalinate	69409945	1.00E-02 *i*						37 *n*	3.7 *n*	1.4 *n*	1000 *n*	78 *n*
Folpet	133073	1.00E-01 *i*		3.50E-03 *i*				19 *c*	1.8 *c*	0.9 *c*	820 *c*	180 *c*
Fomesafen	72178020			1.90E-01 *i*				0.35 *c*	0.033 *c*	0.017 *c*	15 *c*	3.4 *c*
Fonofos	944229	2.00E-03 *i*						7.3 *n*	0.73 *n*	0.27 *n*	200 *n*	16 *n*
Formaldehyde	50000	2.00E-01 *i*			4.55E-02 *i*			730 *n*	0.14 *c*	27 *n*	20000 *n*	1600 *n*
Formic Acid	64186	2.00E+00 *h*						7300 *n*	730 *n*	270 *n*	200000 *n*	16000 *n*
Fosetyl-al	39148248	3.00E+00 *i*						11000 *n*	1100 *n*	410 *n*	310000 *n*	23000 *n*
Furan	110009	1.00E-03 *i*						3.7 *n*	0.37 *n*	0.14 *n*	100 *n*	7.8 *n*
Furazolidone	67458			3.80E+00 *h*				0.018 *c*	0.0016 *c*	0.00083 *c*	0.75 *c*	0.17 *c*
Furfural	98011	3.00E-03 *i*	1.43E-02 *h*					11 *n*	5.2 *n*	0.41 *n*	310 *n*	23 *n*
Furium	531828			5.00E+01 *h*				0.0013 *c*	0.00013 *c*	0.00006 *c*	0.057 *c*	0.013 *c*
Furmecyclox	60568050			3.00E-02 *i*				2.2 *c*	0.21 *c*	0.11 *c*	95 *c*	21 *c*
Glufosinate-ammonium	77182822	4.00E-04 *i*						1.5 *n*	0.15 *n*	0.054 *n*	41 *n*	3.1 *n*
Glycidaldehyde	765344	4.00E-04 *i*	2.86E-04 *h*					1.5 *n*	0.1 *n*	0.054 *n*	41 *n*	3.1 *n*
Glyphosate	1071836	1.00E-01 *i*					0.7 *F*	370 *n*	37 *n*	14 *n*	10000 *n*	780 *n*
Haloxyfop-methyl	69806402	5.00E-05 *i*						0.18 *n*	0.018 *n*	0.0068 *n*	5.1 *n*	0.39 *n*
Harmony	79277273	1.30E-02 *i*						47 *n*	4.7 *n*	1.8 *n*	1300 *n*	100 *n*
HCH (alpha)	319846			6.30E+00 *i*	6.30E+00 *i*			0.011 *c*	0.00099 *c*	0.0005 *c*	0.45 *c*	0.1 *c*
HCH (beta)	319857			1.80E+00 *i*	1.80E+00 *i*			0.037 *c*	0.0035 *c*	0.0018 *c*	1.6 *c*	0.35 *c*
HCH (gamma) Lindane	58899	3.00E-04 *i*		1.30E+00 *h*			0.0002 *F*	0.052 *c*	0.0048 *c*	0.0024 *c*	2.2 *c*	0.49 *c*
HCH-technical	608731			1.80E+00 *i*	1.79E+00 *i*			0.037 *c*	0.0035 *c*	0.0018 *c*	1.6 *c*	0.35 *c*
Heptachlor	76448	5.00E-04 *i*		4.50E+00 *i*	4.55E+00 *i*	•••	0.0004 *F*	0.0023 *c*	0.0014 *c*	0.0007 *c*	0.64 *c*	0.14 *c*
Heptachlor epoxide	1024573	1.30E-05 *i*		9.10E+00 *i*	9.10E+00 *i*	•••	0.0002 *F*	0.0012 *c*	0.00069 *c*	0.00035 *c*	0.31 *c*	0.07 *c*
Hexabromobenzene	87821	2.00E-03 *i*				•••		1.2 *n*	0.73 *n*	0.27 *n*	200 *n*	16 *n*
Hexachlorobenzene	118741	8.00E-04 *i*		1.60E+00 *i*	1.61E+00 *i*	•••	0.001 *F*	0.0066 *c*	0.0039 *c*	0.002 *c*	1.8 *c*	0.4 *c*
Hexachlorobutadiene	87683	2.00E-04 *h*		7.80E-02 *i*	7.70E-02 *i*	•••		0.12 *n*	0.073 *n*	0.027 *n*	20 *n*	1.6 *n*
Hexachlorocyclopentadiene	77474	7.00E-03 *i*	2.00E-05 *h*			•••	0.05 *F*	0.015 *n*	0.0073 *n*	0.95 *n*	720 *n*	55 *n*
Hexachlorodibenzo-p-dioxin mixture	19408743			6.20E+03 *i*	4.55E+03 *i*			0.00001 *c*	1E-06 *c*	5E-07 *c*	0.00046 *c*	0.0001 *c*
Hexachloroethane	67721	1.00E-03 *i*		1.40E-02 *i*	1.40E-02 *i*	•••		0.61 *n*	0.37 *n*	0.14 *n*	100 *n*	7.8 *n*
Hexachlorophene	70304	3.00E-04 *i*						1.1 *n*	0.11 *n*	0.041 *n*	31 *n*	2.3 *n*
Hexahydro-1,3,5-trinitro-1,3,5-triazine	121824	3.00E-03 *i*		1.10E-01 *i*				0.61 *c*	0.057 *c*	0.029 *c*	26 *c*	5.8 *c*
n-Hexane	110543	6.00E-02 *h*	5.71E-02 *i*			•••		35 *n*	21 *n*	8.1 *n*	6100 *n*	470 *n*
Hexazinone	51235042	3.30E-02 *i*						120 *n*	12 *n*	4.5 *n*	3400 *n*	260 *n*
Hydrazine, hydrazine sulfate	302012			3.00E+00 *i*	1.71E+01 *i*			0.022 *c*	0.00037 *c*	0.0011 *c*	0.95 *c*	0.21 *c*
Hydrogen chloride	7647010		2.00E-03 *i*					7.3 *n*	0.73 *n*			
Hydrogen sulfide	7783064	3.00E-03 *i*	2.57E-04 *i*					11 *n*	0.094 *n*	0.41 *n*	310 *n*	23 *n*

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Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg•d/mg	CPSi kg•d/mg	VOC	MCL mg/L	Tap water µg/L	Ambient air µg/m3	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
Methyl acrylate	96333	3.00E-02 *h*						110 *n*	11 *n*	4.1 *n*	3100 *n*	230 *n*
2-Methylaniline hydrochloride	636215			1.80E-01 *h*				0.37 *c*	0.035 *c*	0.018 *c*	16 *c*	3.5 *c*
2-Methylaniline	95534			2.40E-01 *h*				0.28 *c*	0.026 *c*	0.013 *c*	12 *c*	2.7 *c*
Methyl chlorocarbonate	79221	1.00E+00 *w*						3700 *n*	370 *n*	140 *n*	100000 *n*	7800 *n*
4-(2-Methyl-4-chlorophenoxy) butyric acid	94815	1.00E-02 *i*						37 *n*	3.7 *n*	1.4 *n*	1000 *n*	78 *n*
2-Methyl-4-chlorophenoxyacetic acid	94746	5.00E-04 *i*						1.8 *n*	0.18 *n*	0.068 *n*	51 *n*	3.9 *n*
2-(2-Methyl-14-chlorophenoxy)propionic acid	93652	1.00E-03 *i*						3.7 *n*	0.37 *n*	0.14 *n*	100 *n*	7.8 *n*
Methylcyclohexane	108872		8.57E-01 *h*					3100 *n*	310 *n*			
Methylene bromide	74953	1.00E-02 *h*				•••		6.1 *n*	3.7 *n*	1.4 *n*	1000 *n*	78 *n*
Methylene chloride	75092	6.00E-02 *i*	8.57E-01 *h*	7.50E-03 *i*	1.64E-03 *i*	•••	0.005 *F*	4.1 *c*	3.8 *c*	0.42 *c*	380 *c*	85 *c*
4,4'-Methylene bis(2-chloroaniline)	101144	7.00E-04 *h*		1.30E-01 *h*	1.30E-01 *h*			0.52 *c*	0.048 *c*	0.024 *c*	22 *c*	4.9 *c*
4,4'-Methylenebisbenzeneamine	101779			2.50E-01 *h*				0.27 *c*	0.025 *c*	0.013 *c*	11 *c*	2.6 *c*
4,4'-Methylene bis(N,N'-dimethyl)aniline	101611			4.60E-02 *i*				1.5 *c*	0.14 *c*	0.069 *c*	62 *c*	14 *c*
4,4'-Methylenediphenyl isocyanate	101688		5.71E-06 *h*			•••		0.0035 *n*	0.0021 *n*			
Methyl ethyl ketone	78933	6.00E-01 *i*	2.86E-01 *i*					2200 *n*	100 *n*	81 *n*	61000 *n*	4700 *n*
Methyl hydrazine	60344			1.10E+00 *h*				0.061 *c*	0.0057 *c*	0.0029 *c*	2.6 *c*	0.58 *c*
Methyl isobutyl ketone	108101	5.00E-02 *h*	2.29E-02 *h*					180 *n*	8.4 *n*	6.8 *n*	5100 *n*	390 *n*
Methyl methacrylate	80626	8.00E-02 *h*						290 *n*	29 *n*	11 *n*	8200 *n*	630 *n*
2-Methyl-5-nitroaniline	99558			3.30E-02 *h*				2 *c*	0.19 *c*	0.096 *c*	87 *c*	19 *c*
Methyl parathion	298000	2.50E-04 *i*						0.91 *n*	0.091 *n*	0.034 *n*	26 *n*	2 *n*
2-Methylphenol (o-cresol)	95487	5.00E-02 *i*						180 *n*	18 *n*	6.8 *n*	5100 *n*	390 *n*
3-Methylphenol (m-cresol)	103394	5.00E-02 *i*						180 *n*	18 *n*	6.8 *n*	5100 *n*	390 *n*
4-Methylphenol (p-cresol)	106445	5.00E-03 *h*						18 *n*	1.8 *n*	0.68 *n*	510 *n*	39 *n*
Methyl styrene (mixture)	25013154	6.00E-03 *h*	1.14E-02 *h*			•••		6 *n*	4.2 *n*	0.81 *n*	610 *n*	47 *n*
Methyl styrene (alpha)	98839	7.00E-02 *h*				•••		43 *n*	26 *n*	9.5 *n*	7200 *n*	550 *n*
Methyl tertbutyl ether (MTBE)	1634044	5.00E-03 *e*	8.57E-01 *i*			•••		18 *n*	310 *n*	0.68 *n*	510 *n*	39 *n*
Metolaclor (Dual)	51218452	1.50E-01 *i*						550 *n*	55 *n*	20 *n*	15000 *n*	1200 *n*
Metribuzin	21807649	2.50E-02 *i*						91 *n*	9.1 *n*	3.4 *n*	2600 *n*	200 *n*
Mirex	2385855	2.00E-04 *i*		1.80E+00 *h*				0.037 *c*	0.0035 *c*	0.0018 *c*	1.6 *c*	0.35 *c*
Molinate	2212671	2.00E-03 *i*						7.3 *n*	0.73 *n*	0.27 *n*	200 *n*	16 *n*
Molybdenum	7439987	5.00E-03 *i*						18 *n*	1.8 *n*	0.68 *n*	510 *n*	39 *n*
Monochloramine	10599903	1.00E-01 *i*						370 *n*	37 *n*	14 *n*	10000 *n*	780 *n*
Naled	300765	2.00E-03 *i*						7.3 *n*	0.73 *n*	0.27 *n*	200 *n*	16 *n*
Napropamide	15299997	1.00E-01 *i*						370 *n*	37 *n*	14 *n*	10000 *n*	780 *n*
Nickel refinery dust					8.40E-01 *i*				0.0075 *o*			
Nickel (soluble salts)	7440020	2.00E-02 *i*					0.1 *F*	73 *n*	7.3 *n*	2.7 *n*	2000 *n*	160 *n*
Nickel subsulfide	12035722				1.70E+00 *i*				0.0037 *c*			
Nitrapyrin	1929824	1.50E-03 *w*						5.5 *n*	0.55 *n*	0.2 *n*	150 *n*	12 *n*
Nitrate	14797558	1.60E+00 *i*					10 *F*	5800 *n*	580 *n*	220 *n*	160000 *n*	13000 *n*

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Pentachlorobenzene	608935	8.00E-04 *i*				***		0.49 *n*	0.29 *n*	0.11 *n*	82 *n*	6.3 *n*
Pentachloronitrobenzene	82688	3.00E-03 *i*		2.60E-01 *h*		***		0.041 *c*	0.024 *c*	0.012 *c*	11 *c*	2.5 *c*
Pentachlorophenol	87865	3.00E-02 *i*		1.20E-01 *i*			0.001 *F*	0.56 *c*	0.052 *c*	0.026 *c*	24 *c*	5.3 *c*
Permethrin	52645531	5.00E-02 *i*						180 *n*	18 *n*	6.8 *n*	5100 *n*	390 *n*
Phenmedipham	13684634	2.50E-01 *i*						910 *n*	91 *n*	34 *n*	26000 *n*	2000 *n*
Phenol	108952	6.00E-01 *i*						2200 *n*	220 *n*	81 *n*	61000 *n*	4700 *n*
m-Phenylenediamine	108452	6.00E-03 *i*						22 *n*	2.2 *n*	0.81 *n*	610 *n*	47 *n*
o-Phenylenediamine	95545	6.00E-03 *h*						22 *n*	2.2 *n*	0.81 *n*	610 *n*	47 *n*
p-Phenylenediamine	106503	1.90E-01 *h*						690 *n*	69 *n*	26 *n*	19000 *n*	1500 *n*
Phenylmercuric acetate	62384	8.00E-05 *i*						0.29 *n*	0.029 *n*	0.011 *n*	8.2 *n*	0.63 *n*
2-Phenylphenol	90437			1.94E-03 *h*				35 *c*	3.2 *c*	1.6 *c*	1500 *c*	330 *c*
Phorate	298022	2.00E-04 *h*						0.73 *n*	0.073 *n*	0.027 *n*	20 *n*	1.6 *n*
Phosmet	732116	2.00E-02 *i*						73 *n*	7.3 *n*	2.7 *n*	2000 *n*	160 *n*
Phosphine	7803512	3.00E-04 *i*	8.57E-06 *h*					1.1 *n*	0.0031 *n*	0.041 *n*	31 *n*	2.3 *n*
Phosphorus (white)	7723140	2.00E-05 *i*						0.073 *n*	0.0073 *n*	0.0027 *n*	2 *n*	0.16 *n*
p-Phthalic acid	100210	1.00E+00 *h*						3700 *n*	370 *n*	140 *n*	100000 *n*	7800 *n*
Phthalic anhydride	85449	2.00E+00 *i*	3.43E-01 *h*					7300 *n*	130 *n*	270 *n*	200000 *n*	16000 *n*
Picloram	1918021	7.00E-02 *i*					0.5 *F*	260 *n*	26 *n*	9.5 *n*	7200 *n*	550 *n*
Pirimiphos-methyl	29232937	1.00E-02 *i*						37 *n*	3.7 *n*	1.4 *n*	1000 *n*	78 *n*
Polybrominated biphenyls		7.00E-06 *h*		8.90E+00 *h*				0.0076 *c*	0.0007 *c*	0.00035 *c*	0.32 *c*	0.055 *n*
Polychlorinated biphenyls (PCBs)	1336363			7.70E+00 *i*			0.0005 *F*	0.0087 *c*	0.00081 *c*	0.00041 *c*	0.37 *c*	0.083 *c*
Aroclor 1016	12674112	7.00E-05 *i*						0.26 *n*	0.026 *n*	0.0095 *n*	7.2 *n*	0.55 *n*
Polychlorinated terphenyls (PCTs)				4.50E+00 *e*				0.015 *c*	0.0014 *c*	0.0007 *c*	0.64 *c*	0.14 *c*
Polynuclear aromatic hydrocarbons												
Acenaphthene	83329	6.00E-02 *i*						220 *n*	22 *n*	8.1 *n*	6100 *n*	470 *n*
Anthracene	120127	3.00E-01 *i*						1100 *n*	110 *n*	41 *n*	31000 *n*	2300 *n*
Benzo[a]pyrene	50328			7.30E+00 *i*	6.10E+00 *h*		0.0002 *F*	0.0092 *c*	0.001 *c*	0.00043 *c*	0.39 *c*	0.088 *c*
Benzo[b]fluoranthene	205992			7.30E-01 *e*	6.10E-01 *e*		0.0002 *P*	0.092 *c*	0.01 *c*	0.0043 *c*	3.9 *c*	0.88 *c*
Benzo[k]fluoranthene	207089			7.30E-02 *e*	6.10E-02 *e*		0.0002 *P*	0.92 *c*	0.1 *c*	0.043 *c*	39 *c*	8.8 *c*
Benz[a]anthracene	56553			7.30E-01 *e*	6.10E-01 *e*		0.0001 *P*	0.092 *c*	0.01 *c*	0.0043 *c*	3.9 *c*	0.88 *c*
Chrysene	218019			7.30E-03 *e*	6.10E-03 *e*		0.0002 *P*	9.2 *c*	1 *c*	0.43 *c*	390 *c*	88 *c*
Dibenz[ah]anthracene	53703			7.30E+00 *e*	6.10E+00 *e*		0.0003 *P*	0.0092 *c*	0.001 *c*	0.00043 *c*	0.39 *c*	0.088 *c*
Fluoranthene	206440	4.00E-02 *i*						150 *n*	15 *n*	5.4 *n*	4100 *n*	310 *n*
Fluorene	86737	4.00E-02 *i*						150 *n*	15 *n*	5.4 *n*	4100 *n*	310 *n*
Indeno[1,2,3-cd]pyrene	193395			7.30E-01 *e*	6.10E-01 *e*		0.0004 *P*	0.092 *c*	0.01 *c*	0.0043 *c*	3.9 *c*	0.88 *c*
Naphthalene	91203	4.00E-02 *w*						150 *n*	15 *n*	5.4 *n*	4100 *n*	310 *n*
Pyrene	129000	3.00E-02 *i*						110 *n*	11 *n*	4.1 *n*	3100 *n*	230 *n*
Prochloraz	67747095	9.00E-03 *i*		1.50E-01 *i*				0.45 *c*	0.042 *c*	0.021 *c*	19 *c*	4.3 *c*
Profluralin	26399360	6.00E-03 *h*						22 *n*	2.2 *n*	0.81 *n*	610 *n*	47 *n*

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Temephos	3383968	2.00E-02 h						73 n	7.3 n	2.7 n	2000 n	160 n
Terbacil	5902512	1.30E-02 i						47 n	4.7 n	1.8 n	1300 n	100 n
Terbufos	13071799	2.50E-05 h						0.091 n	0.0091 n	0.0034 n	2.6 n	0.2 n
Terbutryn	886500	1.00E-03 i						3.7 n	0.37 n	0.14 n	100 n	7.8 n
1,2,4,5-Tetrachlorobenzene	95943	3.00E-04 i				•••		0.18 n	0.11 n	0.041 n	31 n	2.3 n
1,1,1,2-Tetrachloroethane	630206	3.00E-02 i		2.60E-02 i	2.59E-02 i	•••		0.41 c	0.24 c	0.12 c	110 c	25 c
1,1,2,2-Tetrachloroethane	630206			2.00E-01 i	2.03E-01 i	•••		0.052 c	0.031 c	0.016 c	14 c	3.2 c
Tetrachloroethylene (PCE)	127184	1.00E-02 i		5.20E-02 o	2.03E-03 o	•••	0.005 F	1.1 c	3.1 c	0.061 c	55 c	12 c
2,3,4,6-Tetrachlorophenol	58902	3.00E-02 i						110 n	11 n	4.1 n	3100 n	230 n
p,a,a,a-Tetrachlorotoluene	5216251			2.00E+01 h		•••		0.00053 c	0.00031 c	0.00016 c	0.14 c	0.032 c
Tetrachlorovinphos	961115	3.00E-02 i		2.40E-02 h				2.8 c	0.26 c	0.13 c	120 c	27 c
Tetraethyldithiopyrophosphate	3689245	5.00E-04 i						1.8 n	0.18 n	0.068 n	51 n	3.9 n
Thallic oxide	1314325	7.00E-05 h						0.26 n	0.026 n	0.0095 n	7.2 n	0.55 n
Thallium							0.002 F					
Thallium acetate	563688	9.00E-05 i						0.33 n	0.033 n	0.012 n	9.2 n	0.7 n
Thallium carbonate	6533739	8.00E-05 i						0.29 n	0.029 n	0.011 n	8.2 n	0.63 n
Thallium chloride	7791120	8.00E-05 i						0.29 n	0.029 n	0.011 n	8.2 n	0.63 n
Thallium nitrate	10102451	9.00E-05 i						0.33 n	0.033 n	0.012 n	9.2 n	0.7 n
Thallium selenite	12039520	9.00E-05 w						0.33 n	0.033 n	0.012 n	9.2 n	0.7 n
Thallium sulfate	7446186	8.00E-05 i						0.29 n	0.029 n	0.011 n	8.2 n	0.63 n
Thiobencarb	28249776	1.00E-02 i						37 n	3.7 n	1.4 n	1000 n	78 n
2-(Thiocyanomethylthio)-benzothiazole	21564170	3.00E-02 h						110 n	11 n	4.1 n	3100 n	230 n
Thiofanox	39196184	3.00E-04 h						1.1 n	0.11 n	0.041 n	31 n	2.3 n
Thiophanate-methyl	23564058	8.00E-02 i						290 n	29 n	11 n	8200 n	630 n
Thiram	137268	5.00E-03 i						18 n	1.8 n	0.68 n	510 n	39 n
Tin and compounds		6.00E-01 h						2200 n	220 n	81 n	61000 n	4700 n
Toluene	108883	2.00E-01 i	1.14E-01 w			•••	1 F	75 n	42 n	27 n	20000 n	1600 n
Toluene-2,4-diamine	95807			3.20E+00 h				0.021 c	0.002 c	0.00099 c	0.89 c	0.2 c
Toluene-2,5-diamine	95705	6.00E-01 h						2200 n	220 n	81 n	61000 n	4700 n
Toluene-2,6-diamine	823405	2.00E-01 h						730 n	73 n	27 n	20000 n	1600 n
p-Toluidine	106490			1.90E-01 h				0.35 c	0.033 c	0.017 c	15 c	3.4 c
Toxaphene	8001352			1.10E+00 i	1.12E+00 i		0.003 F	0.061 c	0.0056 c	0.0029 c	2.6 c	0.58 c
Tralomethrin	66841256	7.50E-03 i						27 n	2.7 n	1 n	770 n	59 n
Triallate	2303175	1.30E-02 i						47 n	4.7 n	1.8 n	1300 n	100 n
Triasulfuron	82097505	1.00E-02 i						37 n	3.7 n	1.4 n	1000 n	78 n
1,2,4-Tribromobenzene	615543	5.00E-03 i				•••		3 n	1.8 n	0.68 n	510 n	39 n
Tributyltin oxide (TBTO)	56359	3.00E-05 i						0.11 n	0.011 n	0.0041 n	3.1 n	0.23 n
2,4,6-Trichloroaniline hydrochloride	33663502			2.90E-02 h				2.3 c	0.22 c	0.11 c	99 c	22 c
2,4,6-Trichloroaniline	634935			3.40E-02 h				2 c	0.18 c	0.093 c	84 c	19 c

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Zineb	12122677	5.00E-02 *i*						180 *n*	18 *n*	6.8 *n*	5100 *n*	390 *n*

United States
Environmental Protection
Agency

Region III
Office of Superfund
Hazardous Waste Management
Philadelphia, PA 19107

EPA/903/8-91/002
November 1991

Region III
Technical Guidance Manual
Risk Assessment

Exposure Point Concentrations In Groundwater

EPA Contact: Dr. Debra L. Forman

EPA
Region III

Hazardous Waste Management Division
November 1991

The EPA method of risk assessment uses long term or chronic exposure as a basis for determining the excess cancer risk at a Superfund site. Oftentimes, the risk from exposure to contaminated groundwater is inappropriately calculated from the single highest confirmed concentration found in a groundwater well. This approach is mathematically and conceptually indefensible since a single measurement cannot represent the contamination in an entire plume at a Superfund site. Instead, a sufficient database is required to effectively represent site risk during a lifetime of exposure. The larger database serves to reduce the uncertainty inherent in risk analysis, and the Remedial Project Manager is provided with a more scientifically sound risk evaluation on which to trigger a remedial decision. While this approach applies to most Superfund sites, factors such as calculation method, well placement and use of the historical database attain particular importance at sites where groundwater contamination is not clearly established. This guidance is intended to improve the quality and consistency of deriving exposure point concentrations in groundwater in risk assessments performed in Region III. (EPA/903/8-91/002)

COMMUNICATION

In accordance with our longstanding policy of involving scientists at the early stages of the RI/FS process, this Guidance document stresses communication. Clear lines of contact both between the technical support staff and the risk manager as well as among the technical personnel are essential to the process. The Guidance outlines a sampling strategy, including both spatial and temporal collection and handling of groundwater data. This strategy promotes a coherent technical approach to the RI/FS process, initiating the proper experimental design and correct data usage. Hence, the risk manager is provided with a justifiable risk conclusion based on sound scientific methodology.

The risk associated with groundwater usage at a site is generally calculated by combining the pollutants' concentrations in the aquifer of concern along with site-specific exposure parameters. This result is then combined with chemical specific exposure factors to obtain the final risk value. The approach assumes that the pollutants' concentration is linearly related to risk, thus, changes in concentration may have a significant influence on the risk analysis for the site. A clear understanding of this relationship and its potential impact on the final risk value underscores the requirement for a conceptually correct derivation of the exposure point concentration.

historical data demonstrate clear trends, the toxicologist should incorporate relevant site-specific information into the risk calculation. Site-specific information should also be considered in determining the confidence assigned to the trend direction. In addition, the historical database should be evaluated for landmark actions, such as emergency removal or remedial action prior to the RI/FS. Use of the historical database should include consideration of potential inconsistencies in analytical methods, data validation protocols and QA/QC practices which may have changed with time (USEPA, 1990c).

If the available information is inadequate to substantiate the risk assessment, additional sampling events should be performed for each well identified for risk assessment purposes. The sampling events should be spaced such that an independent sample population is obtained. The selected time interval should be acceptable to all members of the investigation team.

As data is collected, the results should be reviewed for trends. the number of sampling rounds should be sufficient to yield a database with clear trends. The sampling effort may be a continual process, such that the RI/FS process is not delayed. In this respect, information obtained from ongoing sampling efforts may be submitted as addendums to the Remedial Investigation report.

DATA QUALITY OBJECTIVE

A high data quality objective is recommended. Depending on site conditions, analysis of samples using SAS procedures may be warranted. For example, EPA method 500 series for drinking water, which have lower detection limits for some contaminants, can provide greater sensitivity for assessing contaminant concentrations. Thus, a clearer evaluation of the relevance of contaminants detected at concentrations below the detection limit may be attained. In some cases, this approach may eliminate the need to apply the "0.5 times the detection limit" rule (USEPA, 1989). In addition, and if logistics permit, provisions should be made for reanalysis of rejected or estimated samples within their holding times.

RISK ASSESSMENT

A. Current Scenarios

The current, on site risk should be based on the most reliable database obtained during the entire site investigation which may include studies other than the RI/FS. The data to be included in the calculation consists of useable, water quality data obtained from repeated sampling of the wells identified for risk assessment purposes as well as useable historical information. Treatment of non-detects is considered in a separate Region III guidance document (USEPA, 1991a). The reasonable maximum concentration of pollutants in the aquifer can be calculated as the upper 95th percent confidence limit of the arithmetic mean, UCL_{95} (See Highlights). If the database is sufficient, a preliminary conservative risk assessment may be performed following the Phase I investigation. Current off site risk may be assessed using water quality data from a set of wells independent of those identified for on site risk (possibly residential wells).

B. Future Scenarios

Future risk may be estimated using the results of a fate and transport groundwater modelling effort. Consultation with the hydrogeologist is recommended to determine the appropriate modelling approach. If the hydrogeologist determines that groundwater modelling is not appropriate due to site specific conditions, current monitoring well data may be used to assess future risk.

USEPA (1989). Risk Assessment Guidance for Superfund. Volume I, Human Health Evaluation Manual (Part A). EPA/501/1-89/002.

USEPA (1990a). Guidance for Data Useability in Risk Assessment. EPA/540/G-90/008.

USEPA (1990b). Field Filtration Policy for Monitoring Well Groundwater Samples Requiring Metals Analysis, Region III QA Directive, Bulletin #QAD009, USEPA, Region III, Philadelphia, PA.

USEPA (1990c). Guidance for Data Useability in Risk Assessment, EPA/540/G-90/008.

USEPA (1991a). Chemical Concentration Near the Detection Limit, Region III Technical Guidance Manual, EPA-3/HWMD/11-91/001.

USEPA (1991b). Useability of Filtered vs. Unfiltered Metals data for Risk Assessment, Region III Technical Guidance Manual, (Draft document).

For additional information, (215) 597-6626.

Approved by: _____

Thomas C. Voltaggio, Division Director

APPENDIX F

FLORIDA CLEAN-UP GOALS

Florida Department of

Memorandum — Environmental Protection

TO: Tim Bahr, Technical Review Section
Bureau of Waste Cleanup

THROUGH: Jim Crane, Technical Review Section
Bureau of Waste Cleanup

FROM: Ligia Mora-Applegate, Technical Review Section
Bureau of Waste Cleanup

DATE: July 5th, 1994

SUBJECT: ***Cleanup Goals for the Military Sites in Florida***

Attached, for your information and use, please find the **updated** soil cleanup goals. **If** there is ground water contamination, the leachability-based cleanup goals should be considered and compared with the health-based cleanup goals using the applicable scenario (i.e., residential, industrial,etc.). The lowest of the two sets should be the final cleanup goal; if the industrial or agricultural scenario are applicable, the site must have deed restrictions for the more restrictive land uses. In addition, until further notice and where appropriate, the inorganics should pass TCLP as an indication not only that the soil is not a hazardous waste, but also that they will not act as a source of groundwater contamination.

Among the health-based levels, if a residential scenario is applicable you need to look under the column designated *aggregate resident* for carcinogens and *child resident* for non-carcinogens and choose the **lowest** of the two sets. If an industrial scenario is applicable, look under the columns designated *general worker*, and choose the **lowest** of the two sets, and so on.

If any of the levels are below site-specific background or the Method Detection Limit (MDL) any of the latter two will suffice.

If you have any questions, please see me.

/lm-a

SOIL CLEAN-UP GOAL CALCULATIONS & ASSUMPTIONS

Using Inhalation Slope Factor, Cs =

$$\frac{\text{Risk} * \text{BW} * \text{AT}}{\text{EF}*\text{ED}*\text{FI}*[(\text{SFo}*\text{IR}*1\text{E-}06\ \text{kg/mg}) + (\text{SFd}*\text{SA}*\text{AF}*\text{ABS}*1\text{E-}06\ \text{kg/mg}) + (\text{SFi}*\text{InhR}*(1/\text{VF}+1/\text{PEF}))]}$$

Using Inhalation Unit Risk, Cs =

$$\frac{\text{Risk} * \text{BW} * \text{AT}}{\text{EF}*\text{ED}*\text{FI}*[(\text{SFo}*\text{IR}*1\text{E-}06\ \text{kg/mg}) + (\text{SFd}*\text{SA}*\text{AF}*\text{ABS}*1\text{E-}06\ \text{kg/mg}) + (\text{IUR}*70\ \text{kg}*1000\ \mu\text{g/mg}*(1/\text{VF}+1/\text{PEF}))]}$$

Using Inhalation Reference Dose, Cs =

$$\frac{\text{Hazard} * \text{BW} * \text{AT}}{\text{EF}*\text{ED}*\text{FI}*[((1/\text{RfDo})*\text{IR}*1\text{E-}06\ \text{kg/mg})) + ((1/\text{RfDd})*\text{SA}*\text{AF}*\text{ABS}*1\text{E-}06\ \text{kg/mg}) + ((1/\text{RfDi})*\text{InhR}*(1/\text{VF}+1/\text{PEF}))]}$$

Using Inhalation Reference Concentration, Cs =

$$\frac{\text{Hazard} * \text{BW} * \text{AT}}{\text{EF}*\text{ED}*\text{FI}*[((1/\text{RfDo})*\text{IR}*1\text{E-}06\ \text{kg/mg})) + ((1/\text{RfDd})*\text{SA}*\text{AF}*\text{ABS}*1\text{E-}06\ \text{kg/mg}) + ((1/\text{RfCi})*70\ \text{kg}*(1/\text{VF}+1/\text{PEF}))]}$$

SOIL CLEAN-UP GOAL CALCULATIONS & ASSUMPTIONS

ASSUMPTIONS

Assumption	Value	Code	Reference
Target Cancer Risk	1.00E-06	TCR	FDEP Default
Target Hazard Index	1	THI	FDEP Default
Chemical Concentration (ppm)	chemical specific	CS	-
Surface Area - general worker (cm2/day)	2300	SAw	FDEP Default
Surface Area - aggregate resident (cm2/day)	4855	SAa	FDEP Default
Surface Area - child resident (cm2/day)	1800	SAc	FDEP Default
Surface Area - child trespasser (cm2/day)	3556	SAt	USEPA, 1989b; Akin, 1990
Surface Area - SAS agricultural worker (cm2/day)	4900	SAsagw	FDEP Default
Surface Area - FT agricultural worker (cm2/day)	4900	SAfagw	FDEP Default
Conversion Factor (kg/mg)	1.00E-06	CFkg/mg	-
Conversion Factor (µg/mg)	1.00E+03	CFµg/mg	-
Soil to Skin Adherence Factor-resident (mg/cm2)	0.2	AFr	FDEP Default
Soil to Skin Adherence Factor-worker (mg/cm2)	0.6	AFw	FDEP Default
Absorption Factor - organic (unitless)	0.01	ABSo	FDEP Default
Absorption Factor - inorganic (unitless)	0.001	ABSin	FDEP Default
Soil Ingestion Rate - general worker (mg/day)	50	IRw	FDEP Default
Soil Ingestion Rate - aggregate resident (mg/day)	120	IRa	FDEP Default
Soil Ingestion Rate - child resident (mg/day)	200	IRc	FDEP Default
Soil Ingestion Rate - child trespasser (mg/day)	100	IRt	Akin, 1990
Soil Ingestion Rate - SAS agricultural worker (mg/day)	250	IRsagw	FDEP Default
Soil Ingestion Rate - FT agricultural worker (mg/day)	250	IRfagw	FDEP Default
Fraction Ingested (unitless)	1	FI	FDEP Default
Inhalation Rate - general worker (m3/day)	20	InhRw	FDEP Default
Inhalation Rate - aggregate resident (m3/day)	15	InhRa	FDEP Default
Inhalation Rate - child resident (m3/day)	10	InhRc	-
Inhalation Rate - child trespasser (m3/day)	10	InhRt	-
Inhalation Rate - SAS agricultural worker (m3/day)	20	InhRsagw	FDEP Default
Inhalation Rate - FT agricultural worker (m3/day)	20	InhRfagw	FDEP Default
Exposure Frequency - general worker (day/yr)	250	EFw	FDEP Default
Exposure Frequency - residents (days/yr)	350	EFr	FDEP Default
Exposure Frequency - child trespasser (days/yr)	80	EFt	Akin, 1990
Exposure Frequency - SAS agricultural worker (days/yr)	180	EFsagw	FDEP Default
Exposure Frequency - FT agricultural worker (days/yr)	250	EFfagw	FDEP Default
Exposure Duration - general worker (yr)	25	EDw	FDEP Default
Exposure Duration - aggregate resident (yr)	30	EDa	FDEP Default
Exposure Duration - child resident (yr)	6	EDc	FDEP Default
Exposure Duration - child trespasser (yr)	9	EDt	Akin, 1990
Exposure Duration - SAS agricultural worker (yr)	25	EDsagw	FDEP Default
Exposure Duration - FT agricultural worker (yr)	25	EDfagw	FDEP Default
Body Weight - worker (kg)	70	BWw	FDEP Default
Body Weight - aggregate resident (kg)	62	BWa	FDEP Default
Body Weight - child resident - NC (kg)	15	BWcnc	FDEP Default
Body Weight - child resident - C (kg)	62	BWcc	FDEP Default
Body Weight - child trespasser - NC (kg)	35	BWtnc	Akin, 1990
Body Weight - child trespasser - C (kg)	70	BWtc	FDEP Default
Averaging Time - general worker, NC (days)	9125	ATwnc	FDEP Default
Averaging Time - aggregate resident (NC) (days)	10950	ATanc	FDEP Default
Averaging Time - child resident (NC) (days)	2190	ATcnc	FDEP Default
Averaging Time - child trespasser (NC) (days)	3285	ATtnc	Akin, 1990
Averaging Time - SAS agricultural worker (NC) (days)	9125	ATsagwnc	FDEP Default
Averaging Time - FT agricultural worker (NC) (days)	9125	ATfagwnc	FDEP Default
Averaging Time - Cancer (days)	25550	ATc	FDEP Default

SOIL CLEAN-UP GOAL CALCULATIONS & ASSUMPTIONS

VOLATILIZATION MODEL (USEPA, 1993)

Soil-to-air Volatilization Factor (VF)

Assumption	Exposure	Abbr	
Inverse Mean Conc. at Center (g/m2-s per kg/m3)	101.8	Q-C95%UCL	USEPA, 1993
Conversion Factor (m2/cm2)	0.0001	CFm2/cm2	USEPA, 1993
Diffusivity in air (cm2/sec)	chemical specific	Di	USEPA, 1993
Soil moisture content (cm3 water/gm soil)	10%	theta	USEPA, 1993
Soil bulk density (gm/cm3)	1.5	beta	USEPA, 1993
True soil density or particle density (gm/cm3)	2.65	rho	USEPA, 1993
Total soil porosity (unitless)	0.434	Pt	USEPA, 1993
Air filled soil porosity (unitless)	0.284	Pa	USEPA, 1993
Effective diffusivity (cm2/sec)	chemical specific	Dei	USEPA, 1993
Organic carbon partition coefficient (cm3/g)	chemical specific	Koc	-
Organic carbon content of soil (fraction)	2%	OC	USEPA, 1993
Soil-water partition coefficient (cm3/g)	chemical specific	Kd	USEPA, 1993
Soil-air partition coeff. (g soil/cm3 air)	chemical specific	Kas	USEPA, 1993
Exposure interval (seconds)	7.90E+08	T	USEPA, 1993
alpha (cm2/sec)	chemical specific	alpha	USEPA, 1993
Soil-to-air Volatilization Factor (m3/kg)	chemical specific	VF	USEPA, 1993

Dei (cm2/sec) = Di * [Pa^(10/3)/Pt^2]

Pa (unitless) = Pt - (theta * beta)

Pt (unitless) = 1 - (beta/rho)

Kas (g soil/cm3 air) = Hprime/Kd

Kd (cm3/kg) = Koc*OC

alpha (cm2/sec) = (Dei*Pa)/[Pa+(rho*((1-Pa)/Kas))]

$$VF\ (m3/kg) = \frac{Q\text{-}C95\%UCL * CFm2/cm2 * [(3.14 * alpha * T)^{0.5}]}{(2 * Dei * Pa * Kas)}$$

Soil Saturation Concentration (Csat)

Soil saturation concentration (mg/kg)	chemical specific	Csat	USEPA, 1994
Solubility in water (mg/L)	chemical specific	Schem	-
Henry's Law Constant (atm-m3/mol)	chemical specific	Hchem	-
Henry's Constant Unitless (unitless)	chemical specific	Hprime	USEPA, 1994
Water filled soil porosity	0.150	Pwsat	USEPA, 1994
Air-filled soil porosity (unitless)	-0.650	Pasat	USEPA, 1994
Avg unsaturated zone soil volumetric H2O content (L-H2O/L-soil)	0.150	thetasat	USEPA, 1994
Avg unsaturated zone soil gravimetric H2O content (kg-H2O/kg-soil)	10%	thetam	USEPA, 1994
Total soil porosity (unitless)	-0.50	Ptsat	USEPA, 1994
Density of water (kg-water/L-water)	1.00	rhow	USEPA, 1994

Ptsat (unitless) = 1-(beta/rhow)

Pasat (unitless) = Ptsat - thetasat

Pwsat (unitless) = Ptsat - Pasat

Hprime (unitless) = Hchem*41

$$Csat\ (mg/kg) = \frac{Schem * [(Kd * beta) + Pwsat + (Hprime * Pasat)]}{beta}$$

Particulate Emission Factor (PEF)

Respirable fraction (g/m2-hr)	0.036	Rf2	USEPA, 1994
Frac. vegetative cover (unitless)	0	Gchem	USEPA, 1994
Mean annual wind speed (m/sec)	4.5	Um	USEPA, 1994
Equiv. threshold value of wind speed at10m (m/sec)	11.32	Ut	USEPA, 1994
Func. dep. on Um/Ut (unitless)	0.1445	F(x)	USEPA, 1994
Particulate Emission Factor (m3/kg)	chemical specific	PEF	USEPA, 1994

$$PEF\ (m3/kg) = \frac{Q\text{-}C95\%UCL * 3600\ sec/hr}{[Rf * (1-Gchem) * (Um/Ut)^3 * F(x)]}$$

SOIL CLEAN-UP GOAL CALCULATIONS & ASSUMPTIONS

Soil Screening Level Partitioning Equation for Migration to Groundwater

AWC - acceptable concentration in water (µg/l)	chemical specific	AWC	FDEP, 1994
Conversion factor (mg/µg)	1.00E-03	CFmg/µg	-
rhob - bulk density	1.50	rhob	USEPA, 1994
rhos - particle density (kg/L)	2.65	rhos	USEPA, 1994
n - porosity (Lpore/Lsoil)	4.34E-01	n	USEPA, 1994
thetaw - water-filled pore space (Lwater/Ltotal)	3.00E-01	thetaw	USEPA, 1994
thetaa - air-filled pore space (Lair/Lpore)	1.34E-01	thetaa	USEPA, 1994
Koc - organic carbon partitioning coefficient (L/kg)	chemical specific	Koc	-
Foc - fraction of organic carbon in soil (unitless)	2.00E-03	Foc	USEPA, 1994
Henry's Law Constant (atm*m3/mol)	chemical specific	Hchem	-
Henry's Law Constant (dimensionless)	chemical specific	Hprime	-

n (Lpore/Lsoil) = 1 - (rhob/rhos)

thetaa (Lair/Lpore) = n - thetaw

Hprime (unitless) = Hchem*41

Screening Level in Soil (mg/kg) = AWC*CFmg/µg*[(Koc*Foc)+((thetaw+(thetaa*Hprime))/((1-n)*rhos))]

Di Calculation (USEPA, 1988a)

$$\text{Di Calculation} = \frac{(0.001*Temp^{1.75}) * [(1/MWi)+(1/MWa)]^{1/2}}{Pab[(\Sigma Vi)^{1/3} + (\Sigma Va)^{1/3}]^2}$$

Absolute temperature (°K) -	303	Temp	USEPA, 1988a
Molecular wt of chemical (g/mol) -	chemical specific	MWi	-
Molecular wt of air (g/mol) -	28.8	MWa	USEPA, 1988a
Absolute Pressure (atm) -	1	Pab	USEPA, 1988a
Molecular Diffusion Volume of chemical (cm3/mol) -	chemical specific	ΣVi	-
Molecular Diffusion Volume of air (cm3/mol) -	20.1	ΣVa	USEPA, 1988a

ΣV (2-Acetylaminofluorene - an example) = C15H13NO (3 rings)

ΣV = (15*16.5)+(13*1.98)+(1*5.69)+(1*5.48)+(3*-20.2)

ΣV = 223.81

Values used to calculate ΣV:

Carbon=	16.5	-	USEPA, 1988a
Hydrogen=	1.98	-	USEPA, 1988a
Oxygen=	5.48	-	USEPA, 1988a
Nitrogen=	5.69	-	USEPA, 1988a
Chlorine=	19.5	-	USEPA, 1988a
Bromine=	35.0	-	USEPA, 1988a
Fluorine=	25.0	-	USEPA, 1988a
Sulfur=	17.0	-	USEPA, 1988a
Heterocyclic/Aromatic Ring=	-20.2	-	USEPA, 1988a

Selected Soil Clean-up Goals

Chemical Name	CAS Number	Soil Clean-up Goal (mg/kg) Based on an Excess Cancer Risk of 1E-06				
		Aggregate Resident	Child Trespasser	General Worker	SAS Agric. Worker	FT Agric. Worker
VOCs						
Acetone	67-64-1	ND	ND	ND	ND	ND
Benzene	71-43-2	2.60E+00	4.33E+01	5.10E+00	6.37E+00	4.58E+00
Bromodichloromethane	75-27-4	3.65E+00	8.61E+01	5.92E+00	6.44E+00	4.64E+00
2-Butanone	78-93-3	ND	ND	ND	ND	ND
Ethylbenzene	100-41-4	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	2.07E+01	3.50E+02	4.22E+01	4.73E+01	3.41E+01
Perchloroethylene	127-18-4	1.46E+01	2.71E+02	4.14E+01	2.19E+01	1.58E+01
Trichloroethene	79-01-6	1.20E+01	2.02E+02	2.42E+01	2.80E+01	2.01E+01
Xylene, mixture	1330-20-7	ND	ND	ND	ND	ND
BNAs						
Acenaphthene	83-32-9	ND	ND	ND	ND	ND
Acenaphthylene	208-96-8	ND	ND	ND	ND	ND
Anthracene	120-12-7	ND	ND	ND	ND	ND
Benzo(a)anthracene	56-55-3	1.48E+00	2.98E+01	5.04E+00	1.76E+00	1.27E+00
Benzo(b)fluoranthene	205-99-2	1.48E+00	2.96E+01	5.01E+00	1.76E+00	1.27E+00
Benzo(k)fluoranthene	207-08-9	1.47E+00	2.95E+01	4.98E+00	1.76E+00	1.26E+00
Benzo(a)pyrene	50-32-8	1.48E-01	2.98E+00	5.05E-01	1.76E-01	1.27E-01
Benzo(g,h,i)perylene	191-24-2	ND	ND	ND	ND	ND
Butylbenzylphthalate, N-	85-68-7	ND	ND	ND	ND	ND
Carbazole	86-74-8	5.81E+01	1.16E+03	2.24E+02	7.11E+01	5.12E+01
Chrysene	218-01-9	1.48E+01	2.97E+02	5.03E+01	1.76E+01	1.27E+01
Dibenz(a,h)anthracene	53-70-3	1.48E-01	2.98E+00	5.05E-01	1.76E-01	1.27E-01
Dibenzofuran	132-64-9	ND	ND	ND	ND	ND
Fluoranthene	206-44-0	ND	ND	ND	ND	ND
Fluorene	86-73-7	ND	ND	ND	ND	ND
Hexane, n-	110-54-3	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	1.48E+00	2.98E+01	5.05E+00	1.76E+00	1.27E+00
2-Methylnaphthalene	91-57-6	ND	ND	ND	ND	ND
Naphthalene	91-20-3	ND	ND	ND	ND	ND
Pentachlorophenol	87-86-5	9.62E+00	1.92E+02	3.66E+01	1.18E+01	8.49E+00
Phenanthrene	85-01-8	ND	ND	ND	ND	ND
Pyrene	129-00-0	ND	ND	ND	ND	ND
Pesticides/Others						
4,4'-DDD	72-54-8	4.74E+00	9.48E+01	1.76E+01	5.76E+00	4.15E+00
4,4'-DDE	72-55-9	3.34E+00	6.68E+01	1.24E+01	4.06E+00	2.93E+00
4,4'-DDT	50-29-3	3.18E+00	6.28E+01	1.13E+01	3.97E+00	2.86E+00
Chlordane, alpha-	57-74-9	8.69E-01	1.73E+01	3.21E+00	1.06E+00	7.64E-01
Chlordane, gamma-	57-74-9	8.69E-01	1.73E+01	3.21E+00	1.06E+00	7.64E-01
Dieldrin	60-57-1	7.12E-02	1.41E+00	2.69E-01	8.80E-02	6.34E-02
Endrin	72-20-8	ND	ND	ND	ND	ND
Freon	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	1024-57-3	4.34E-02	7.67E-01	9.75E-02	7.78E-02	5.60E-02
Toxaphene	8001-35-2	3.59E-02	5.94E-01	6.92E-02	9.07E-02	6.53E-02
Metals						
Aluminum	7429-90-5	ND	ND	ND	ND	ND
Arsenic	7440-38-2	7.11E-01	1.41E+01	3.17E+00	8.97E-01	6.46E-01
Cadmium	7440-43-9	1.34E+03	2.21E+04	2.55E+03	3.54E+03	2.55E+03
Chromium (hexavalent)	18540-29-9	2.01E+02	3.32E+03	3.82E+02	5.31E+02	3.82E+02
Chromium (trivalent)	16065-83-1	ND	ND	ND	ND	ND
Cobalt	7440-48-4	ND	ND	ND	ND	ND
Copper	7440-50-8	ND	ND	ND	ND	ND
Iron	7439-89-6	ND	ND	ND	ND	ND
Lead	7439-92-1	ND	ND	ND	ND	ND
Manganese (food)	7439-96-5	ND	ND	ND	ND	ND
Nickel	7440-02-0	ND	ND	ND	ND	ND
Vanadium	7440-62-2	ND	ND	ND	ND	ND
Zinc	7440-66-6	ND	ND	ND	ND	ND

Selected Soil Clean-up Goals

Chemical Name	CAS Number	Soil Clean-up Goal (mg/kg) Based on a Hazard Index of 1					Soil Clean-up Goals (mg/kg) Based on Leachability
		Child Resident	Child Trespasser	General Worker	SAS Agric. Worker	FT Agric. Worker	
VOCs							
Acetone	67-64-1	2.29E+03	2.72E+04	9.98E+03	1.14E+04	8.22E+03	1.43E-01
Benzene	71-43-2	ND	ND	ND	ND	ND	3.86E-04
Bromodichloromethane	75-27-4	5.57E+02	6.87E+03	2.62E+03	2.85E+03	2.05E+03	3.06E-04
2-Butanone	78-93-3	6.77E+03	7.42E+04	4.92E+04	5.82E+04	4.19E+04	8.78E-01
Ethylbenzene	100-41-4	4.15E+03	5.70E+04	4.32E+04	3.14E+04	2.26E+04	7.27E-02
Methylene chloride	75-09-2	1.99E+03	2.55E+04	1.85E+04	1.56E+04	1.12E+04	1.13E-03
Perchloroethylene	127-18-4	1.44E+02	1.61E+03	5.57E+02	6.93E+02	4.99E+02	3.07E-03
Trichloroethene	79-01-6	ND	ND	ND	ND	ND	1.46E-03
Xylene, mixture	1330-20-7	3.79E+04	4.38E+05	1.56E+05	1.86E+05	1.34E+05	1.41E-02
BNAs							
Acenaphthene	83-32-9	4.00E+03	6.77E+04	4.64E+04	2.34E+04	1.69E+04	1.88E-01
Acenaphthylene	208-96-8	ND	ND	ND	ND	ND	5.21E-02
Anthracene	120-12-7	1.83E+04	2.92E+05	1.73E+05	1.04E+05	7.51E+04	5.92E+01
Benzo(a)anthracene	56-55-3	ND	ND	ND	ND	ND	1.10E+01
Benzo(b)fluoranthene	205-99-2	ND	ND	ND	ND	ND	4.40E+00
Benzo(k)fluoranthene	207-08-9	ND	ND	ND	ND	ND	4.40E+00
Benzo(a)pyrene	50-32-8	ND	ND	ND	ND	ND	2.20E+00
Benzo(g,h,i)perylene	191-24-2	ND	ND	ND	ND	ND	3.20E+01
Butylbenzylphthalate, N-	85-68-7	1.53E+04	2.95E+05	3.11E+05	1.01E+05	7.26E+04	2.42E+01
Carbazole	86-74-8	ND	ND	ND	ND	ND	ND
Chrysene	218-01-9	ND	ND	ND	ND	ND	2.00E+00
Dibenz(a,h)anthracene	53-70-3	ND	ND	ND	ND	ND	4.95E+01
Dibenzofuran	132-64-9	2.90E+02	5.35E+03	4.62E+03	1.87E+03	1.34E+03	ND
Fluoranthene	206-44-0	2.99E+03	5.48E+04	4.96E+04	1.81E+04	1.30E+04	2.13E+01
Fluorene	86-73-7	2.78E+03	4.83E+04	3.60E+04	1.65E+04	1.19E+04	4.14E+00
Hexane, n-	110-54-3	1.75E+02	1.82E+03	1.18E+03	1.57E+03	1.13E+03	1.03E-01
Indeno(1,2,3-cd)pyrene	193-39-5	ND	ND	ND	ND	ND	2.40E+01
2-Methylnaphthalene	91-57-6	ND	ND	ND	ND	ND	ND
Naphthalene	91-20-3	2.29E+03	3.61E+04	2.01E+04	1.35E+04	9.75E+03	1.41E-02
Pentachlorophenol	87-86-5	2.30E+03	4.44E+04	4.71E+04	1.52E+04	1.09E+04	1.06E-01
Phenanthrene	85-01-8	ND	ND	ND	ND	ND	2.82E-01
Pyrene	129-00-0	2.24E+03	4.12E+04	3.75E+04	1.36E+04	9.80E+03	1.60E+01
Pesticides/Others							
4,4'-DDD	72-54-8	ND	ND	ND	ND	ND	1.54E-01
4,4'-DDE	72-55-9	ND	ND	ND	ND	ND	8.80E-01
4,4'-DDT	50-29-3	3.74E+01	7.03E+02	6.67E+02	2.40E+02	1.73E+02	4.86E-02
Chlordane, alpha-	57-74-9	4.57E+00	8.73E+01	8.89E+01	2.95E+01	2.13E+01	5.60E-01
Chlordane, gamma-	57-74-9	4.57E+00	8.73E+01	8.89E+01	2.95E+01	2.13E+01	5.60E-01
Dieldrin	60-57-1	3.82E+00	7.36E+01	7.68E+01	2.52E+01	1.81E+01	3.60E-04
Endrin	72-20-8	2.29E+01	4.42E+02	4.62E+02	1.51E+02	1.09E+02	7.19E-03
Freon	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	1024-57-3	4.01E-01	5.00E+00	1.95E+00	2.01E+00	1.45E+00	1.28E-04
Toxaphene	8001-35-2	1.27E+00	1.34E+01	4.39E+00	5.87E+00	4.23E+00	1.12E-02
Metals							
Aluminum	7429-90-5	ND	ND	ND	ND	ND	ND TCLP
Arsenic	7440-38-2	2.34E+01	4.75E+02	5.96E+02	1.68E+02	1.21E+02	ND
Cadmium	7440-43-9	3.75E+01	6.86E+02	6.25E+02	2.24E+02	1.61E+02	ND
Chromium (hexavalent)	18540-29-9	3.41E+02	5.07E+03	3.16E+03	1.46E+03	1.05E+03	ND
Chromium (trivalent)	16065-83-1	6.82E+04	1.01E+06	6.32E+05	2.92E+05	2.10E+05	ND
Cobalt	7440-48-4	ND	ND	ND	ND	ND	ND
Copper	7440-50-8	2.88E+03	5.83E+04	7.21E+04	2.06E+04	1.48E+04	ND
Iron	7439-89-6	ND	ND	ND	ND	ND	ND
Lead	7439-92-1	~~ND~~ 50	ND	~~ND~~ 1000	ND	ND	ND
Manganese (food)	7439-96-5	5.71E+03	7.64E+04	5.52E+04	3.99E+04	2.87E+04	ND
Nickel	7440-02-0	1.51E+03	2.79E+04	2.62E+04	9.18E+03	6.61E+03	ND
Vanadium	7440-62-2	5.01E+02	8.22E+03	5.97E+03	2.50E+03	1.80E+03	ND
Zinc	7440-66-6	2.33E+04	4.66E+05	5.52E+05	1.63E+05	1.17E+05	ND