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FINAL SITE MANAGEMENT PLAN SECOND QUARTER UPDATE FOR FISCAL YEAR 2004

NAS CECIL FIELD FL

5/1/2004

TETRA TECH NUS INC

Site Management Plan
Second Quarter Update
for
Fiscal Year 2004

Naval Air Station Cecil Field
Jacksonville, Florida

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

Contract Task Order 0328

May 2004

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SITE MANAGEMENT PLAN
SECOND QUARTER UPDATE
FOR
FISCAL YEAR 2004
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

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MAY 2004

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ACRONYMS

ABB-ES	ABB Environmental Services, Inc.
APR	Alternate Procedures Request
AS	Air sparging
AST	Aboveground storage tank
AVORD	Aviation Ordnance
BCT	BRAC Cleanup Team
BRA	Baseline risk assessment
BRAC	Base Realignment and Closure
BTEX	Benzene, toluene, ethylbenzene, and xylenes
CA	Contamination Assessment
CAR	Contamination Assessment Report
CARA	CAR Addendum
COC	Contaminant of concern
CSR	Confirmation Sampling Report
DPT	Direct push technology
EE/CA	Engineering Evaluation/Cost Analysis
EMT	Earth-mounded tank
ESD	Explanation of Significant Difference
FDEP	Florida Department of Environmental Protection
FID	flame ionization detector
FFA	Federal Facility Agreement
FS	Feasibility Study
FY	Fiscal Year
GCTL	Groundwater Cleanup Target Level
IDW	Investigation-derived waste
IR	Installation Restoration
IRA	Interim Remedial Action
iSOC	In-situ oxygen curtain
JETC	Jet Engine Test Cell
KAG	Kerosene Analytical Group
LUC	Land use control
MIP	Membrane interface probe
NAS	Naval Air Station
NFA	No Further Action
NFF	North Fuel Farm

NSAP	North-South Apron Plume
O&M	Operation and Maintenance
OGC	Old Golf Course
OPS	Operating Properly and Successfully
OU	Operable Unit
PAH	Polynuclear aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PP	Proposed Plan
PRG	Preliminary Remediation Goal
PSC	Potential Source of Contamination
QPR	Quarterly Progress Report
RA	Remedial Action
RAB	Restoration Advisory Board
RAC	Remedial Action Contractor
RAP	Remedial Action Plan
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
SAOR	Sampling and Analysis Outline Report
SAR	Sampling and Analysis Report (BRAC Program) or Site Assessment Report (Petroleum Program)
SARA	Site Assessment Report Addendum
SCTL	Soil Cleanup Target Level
SFF	South Fuel Farm
SMP	Site Management Plan
SRR	Source Removal Report
SVE	Soil vapor extraction
TCE	Trichloroethene
TRPH	Total recoverable petroleum hydrocarbons
TtNUS	Tetra Tech NUS, Inc.
UCL	Upper confidence limit
U.S. COE	United States Army Corps of Engineers
U.S. EPA	United States Environmental Protection Agency
UST	Underground storage tank
VOC	volatile organic compound

1.0 INTRODUCTION

1.1 BACKGROUND

The United States Navy, the United States Environmental Protection Agency (U.S. EPA), and the State of Florida via the Florida Department of Environmental Protection (FDEP), signed the Federal Facility Agreement (FFA) for Naval Air Station (NAS) Cecil Field, Jacksonville, Florida in October 1990. The purpose of the FFA was to provide the legal mechanism for the Navy to investigate and undertake appropriate remedial actions for past hazardous waste releases at NAS Cecil Field. As part of the FFA, the Navy prepares Quarterly Progress Reports (QPRs) for submittal to the other FFA parties.

1.2 SCOPE

In accordance with the FFA, Part XII, the QPRs identify and briefly describe actions the Navy has taken to implement FFA requirements in the previous quarter and those actions scheduled for the upcoming quarter. The activity narrative includes a statement on the manner and extent to which the Navy is meeting the schedules established by the FFA through the Site Management Plan (SMP) and work plans. In addition to the activity descriptions, problems that caused delays or anticipated problems that might cause delays are identified, and the actions the Navy plans to take to manage the delays are discussed.

1.3 SCHEDULE

The Navy submits the QPR within 30 days from the end of the previous quarter.

2.0 FEDERAL FACILITY AGREEMENT ACTIVITIES

2.1 SITE MANAGEMENT PLAN

The Navy provided FFA parties with a Fiscal Year (FY) 2004 SMP on November 17, 2003. The SMP included schedules to accomplish Installation Restoration (IR), Petroleum underground storage tank (UST) and aboveground storage tank (AST), and Base Realignment and Closure (BRAC) Program activities at NAS Cecil Field. SMP schedule revisions are recommended for approval as needed. Reasons for revisions may include new information obtained during field investigations and remediation initiatives under consideration. This second quarter report for FY 2004 presents revisions to the SMP schedule.

2.2 ADMINISTRATION

The Navy has continued administering the IR, Petroleum, and BRAC Programs and is implementing field activities in accordance with previously submitted and approved planning documents.

2.3 SCHEDULE ADHERENCE

The Navy has primary responsibility for developing and implementing the SMP and for administration and schedule adherence of the NAS Cecil Field Remedial Investigation (RI) and Feasibility Study (FS) program through execution of the Department of Defense IR Program. The following information was provided to the NAS Cecil Field partnering team and the regulatory agencies concerning schedule adherence during the second quarter of FY 2004 (January 1, 2004 to March 31, 2004).

Installation Restoration Program

The following changes to the schedule presented in the SMP for FY 2004 are anticipated at this time:

- The schedules for the final submission of the Land Use Control (LUC) Remedial Designs (RDs) for Sites 1 and 2, 3, 5, 8, 16, and 17, will be extended by approximately 3 to 4 months due to ongoing discussions on the LUC language to be used in the documents. All of these LUC RDs are scheduled to be submitted in mid-July 2004. For the same reason, the submittal schedules for LUC RDs for Sites 25 and 32 will be extended by 4 months to early October 2004. Due to schedule delays in the Records of Decision (RODs) for Sites 21 and 57 and 58, the submittal of LUC RDs for these sites will be delayed by 8 months to January/February 2005.

- The schedules for the final submittal of the Operating Properly and Successfully (OPS) Demonstration Reports for Sites 1 and 2, 3, 5, 8, 16, and 17 will be extended by 4 to 6 months to the end of July 2004 due to the anticipated delays in the submittals of the LUC RDs. In addition, the schedules for the final submittal of the OPS Demonstration Reports for Sites 21 and 57 and 58 will be extended by 4 to 6 months to February 2005 for the same reason. The schedule for the final submittal of LUC RDs for Sites 25 and 36 and 37 will each be moved up by 1 month to accommodate the schedule for transferring these properties.

- The schedules for the final submittal of the Annual Groundwater Monitoring Reports for Sites 1 and 2, 3, 5, 16, 17, 21, 25, 36 and 37, and 45 will extended by 4 to 6 months each due to delays in resolving regulatory comments at these sites.

- The schedule for the Revised FS, Proposed Plan (PP), ROD and Remedial Design for Site 15 will be extended by 4 to 5 months due to delayed resolution of the site's geostatistics evaluation. The anticipated submittal dates for the Revised FS, PP, ROD, and Remedial Design are August 13, October 8, December 30, 2004, and March 11, 2005, respectively.

- The schedule for the RODs for Sites 25, 32, and 57 and 58 will be extended to early July 2004 due to ongoing discussions on the LUC language to be used in the documents.

- The schedule for the Revised PP and Revised ROD for Site 21 will be extended to the end of September and the end of November 2004, respectively, due to ongoing discussions on the LUC language to be used in the documents.

Petroleum Program

The following changes to the schedule presented in the SMP for FY 2004 are anticipated at this time:

- The submittal of the Remedial Action Plan (RAP) Addendum for the South Fuel Farm (SFF) will be extended to late May 2004 due to additional soil sampling performed during the first quarter of FY 2004.

- Groundwater monitoring programs remain on hold for the BP Wells and North-South Apron Plume (NSAP) sites. Also, the Tank 815 (Wash Rack) groundwater monitoring program has been placed on hold pending the outcome of required additional assessment.

- The groundwater monitoring program for Building 80 (Tank 80) has been discontinued based upon FDEP approval of a No Further Action (NFA) recommendation at that site. In addition, the groundwater monitoring program for Building 860 (Tanks 860 A/B/D) has been placed on hold pending FDEP approval of an NFA recommendation.

- The submittal of the RAP Addendum for the North Fuel Farm (NFF) will be extended to mid-July 2004 due to a delay in the regulatory review of the previously submitted Site Assessment Report (SAR) Addendum (SARA) for that site.

BRAC Program

The following change to the schedule presented in the SMP for FY 2004 is anticipated at this time:

- The schedule for the SAR for Building 635 – Former Railroad Bed Site will be extended by 6 months due to the delay resulting from the ongoing discussions between the Navy and FDEP regarding the upper confidence limit (UCL) calculation.

2.4 NEW INITIATIVES

The Navy is continuing with planning efforts and initiation of new processes designed to improve the execution and efficiency of the program. These items include the following:

- Onboard review of major deliverables.

- Identification and implementation of site screening methods designed to accelerate the investigative process.

- Evaluation of remedial alternatives to incorporate data needs into the initial RI process.

- Coordination of assessment and cleanup activities with the Remedial Action Contractor (RAC).

- Combination of the Potential Source of Contamination (PSC) technical memoranda and decision documents into one report, Technical Memorandum for NFA for sites with unlimited use and unrestricted exposure. Sites with LUCs (limited use and restricted exposure) require preparation of a separate decision document.

- Adoption of NAS Cecil Field background screening concentrations for inorganics in groundwater, surface water, sediment, and surface soil at the site.

- Completion of preliminary risk evaluations to identify problem sites.
- Implementation of interim actions to eliminate threats to human health.
- Use of immunoassay kits for contamination delineation followed by confirmatory sampling to reduce analytical costs and obtain quicker results.

3.0 ACTIVITIES PERFORMED THIS QUARTER

3.1 COMMUNITY RELATIONS

The Cecil Field Restoration Advisory Board (RAB) met on January 20, 2004. The meeting provided updates on the status of IR, Petroleum, and BRAC sites. The following topics were discussed:

- An update on the Proposed Plan for Site 49.
- An update on the Record of Decision for Site 32.
- An update on the status and cleanup alternatives for Site 15.
- An update on the status of the Building 324 Trichloroethene (TCE) Plume.

3.2 FIELD WORK

Table 3-1 presents site descriptions of the current investigative status for IR sites. Similarly, site descriptions of petroleum sites are presented in Table 3-2. The following field activities were conducted during the second quarter of FY 2004.

IR Program

- Site 57/58 natural attenuation groundwater sampling - 4th quarter event (Year 1).
- Site 21 natural attenuation groundwater sampling - 2nd semi-annual event (Year 2).
- Site 25 natural attenuation groundwater sampling - 2nd semi-annual event (Year 2).
- Site 59 (Building 324) – Phase I direct-push technology (DPT) investigation and drilling/sampling of monitoring wells.
- Building 312 – sampling drums of investigation-derived waste (IDW).
- Site 3 natural attenuation groundwater sampling - 1st semi-annual event (Year 6).
- Site 5 natural attenuation groundwater sampling - 2nd semi-annual event (Year 6).
- Site 8 natural attenuation groundwater sampling - 2nd semi-annual event (Year 6).
- Site 16 natural attenuation groundwater sampling - 1st semi-annual event (Year 6).
- Site 17 natural attenuation groundwater sampling - 2nd semi-annual event (Year 7).

Petroleum Program

- Tank 199 groundwater sampling - annual event (Year 5).
- BP Wells Area – remove in-situ oxygen curtain (iSOC) system and return it to the vendor.

- Tank 502 groundwater sampling - 2nd semi-annual event (Year 4).
- Tank 860 A/B/D groundwater sampling - 2nd semi-annual event (Year 3).

BRAC Program

- Railroad Bed – surveying of locations that exceeded FDEP Soil Cleanup Target Levels (SCTLs) for soil sampling.
- Building 605 – abandonment of 7 piezometers.
- North Fuel Farm Area – excavation of Tank 285ST.

3.3 DELIVERABLES

The following deliverables were submitted during the second quarter of FY 2004:

IR Program

- Site 8 final Annual Groundwater Monitoring Report - (Year 5).
- Site 3 draft Annual Groundwater Monitoring Report - (Year 5).
- Site 16 draft Annual Groundwater Monitoring Report - (Year 5).
- Site 45 draft Annual Groundwater Monitoring Report - (Year 2).

Petroleum Program

- Building 80, Tank 80 - final 2nd Semi-Annual Groundwater Monitoring Report - (Year 3).
- Ocala Crash Site - draft 1st Semi-Annual Groundwater Monitoring Report - (Year 4).
- Ocala Crash Site - final 1st Semi-Annual Groundwater Monitoring Report - (Year 4).
- Tank 502 - final 1st Semi-Annual Groundwater Monitoring Report - (Year 4).
- Tanks 860-A/B/D - final 1st Semi-Annual Groundwater Monitoring Report - (Year 3).
- Tanks 860-A/B/D - draft 2nd Semi-Annual Groundwater Monitoring Report - (Year 3).
- NFF Area - final RAP.
- Tank 199 - draft Annual Groundwater Monitoring Report - (Year 5).
- BP Wells Site - draft 4th Quarter Operating and Maintenance Report - (Year 1).
- Site 37, Hangar 14 – draft SAR.

BRAC Program

None

3.4 MEETINGS

The following meetings were held during the second quarter of FY 2004:

- Partnering Meeting January 20 and 21, and March 16 and 17, 2004
- RAB Meeting, NAS Cecil Field January 20, 2004

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
1	OU 1	Old Landfill (9 acres)	1950s-1965	Solid waste, oils, fuels, paints, paint stripper, solvents, municipal solid waste	Municipal solid waste, industrial operations	Trench and fill landfill for commercial and residential wastes (solid and liquid).
	Current Investigative Status: The Record of Decision (ROD) was submitted in September 26, 1995. The selected remedial alternative, site closure, included landfill gas, radiological and unexploded ordnance surveys, surface debris removal, groundwater monitoring, post-closure care, and a 5-year review. Final design was submitted in April 1996. Bechtel and the U.S. Navy conducted an unexploded ordnance survey in 1997, and Bechtel completed a radiological survey in 1998. Tetra Tech NUS, Inc. (TtNUS) initiated monitoring activities in May 1997. The four quarterly sampling events were completed and reports presenting the analytical results were submitted for each sampling event. Sampling has been reduced to an annual event. The April 1999 annual sampling event was conducted, and the report summarizing the results was completed. Monitoring wells CEF-BK-4S and CEF-1-5S were resampled in December 1999. The April 2000 annual sampling event was conducted, and the report recommended continuing the monitoring program. The April 2001 annual sampling event was conducted, and the report was submitted in November 2001. The report recommended that the annual sampling be reduced to surface water and sediments collected at three locations and that toxicity testing be eliminated. The May 2002 annual sampling event was conducted, and the report recommended continuing the current monitoring program in 2003. A final Land Use Control (LUC) RD and a final Operating Properly and Successfully (OPS) Demonstration report are scheduled for submittal during the 4th quarter of fiscal year (FY) 2004. The latest annual samplin105 g event occurred in May 2003. The draft report was submitted in December 2003, and a final version is currently in preparation.					
2	OU 1	Recent Landfill (5 acres)	1965-1975	Solid waste, oils, fuels, paints, paint stripper, solvents	Industrial operations and shops	Trench and fill landfill for commercial and residential wastes (solid and liquid).
	Current Investigative Status: The ROD was submitted in September 1995. The selected remedial alternative included site closure and biomonitoring in the wetland area. Final design was submitted in April 1996. Bechtel and the U.S. Navy conducted an unexploded ordnance survey in 1997 and Bechtel completed a radiological survey in 1998. TtNUS initiated monitoring activities in May 1997. The four quarterly sampling events have been completed and reports presenting the analytical results were submitted for each sampling event. Sampling has been reduced to an annual event. The April 1999 annual sampling event was conducted, and the report summarizing the results was completed. Monitoring wells CEF-BK-4S and CEF-1-5S were resampled in December 1999. The April 2000 annual sampling event was conducted, and the report recommended continuing the monitoring program. The April 2001 annual sampling event was conducted, and the report was submitted in November 2001. The report recommended that the annual sampling be reduced to surface water and sediments collected at three locations and that toxicity testing be eliminated. The May 2002 annual sampling event was conducted, and the report recommended continuing the current monitoring program in 2003. A final LUC RD and a final OPS Demonstration report are scheduled for submittal during the 4th quarter of FY 2004. The latest annual sampling event occurred in May 2003. The draft report was submitted in December 2003, and the final version is currently in preparation.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
3	OU 8	Oil/Sludge Disposal Pit (50-100 ft in diameter and 3-5 ft deep)	1950s-1975	Waste fuels, oils, paints, paint strippers, solvents	Fuel farm, AIMD, squadrons, public works shops	At least four shallow pits were used to dispose of liquid wastes and sludge. Groundwater was the only medium identified in the baseline risk assessment (BRA) as having an unacceptable human health risk. No ecological risk was identified for any medium.
	Current Investigative Status: The ROD was signed in September 1998. The final groundwater remedial design was submitted in October 1998 and identified air sparging (AS) of the source, natural attenuation monitoring of the plume, institutional controls to prevent use of groundwater, and 5-year reviews. The baseline sampling event for natural attenuation was conducted in December 1998. The annual summary report for the Year 1 Quarterly Monitoring Program was completed in January 2000. The Year 1 annual report recommended quarterly sampling in the source area and the wells near Rowell Creek and semi-annual sampling of the wells in the plume. The installation of the AS system was completed in the 3rd quarter of FY 1999, the system began operation in late May 1999, and the system was shut down in May 2000. The Year 2 annual report recommended that the AS system remain off, and the groundwater monitoring program was optimized (reduced analyses and number of monitoring wells). The November 2000 groundwater sampling event (source area only) showed a rebound of the contaminants of concern (COCs) in the source area. The Base Realignment and Closure (BRAC) Cleanup Team (BCT) decided to restart the AS system. The AS system was turned on December 22, 2000. A groundwater sampling event was conducted in January 2001, and the results were presented at the February 2001 BCT meeting. Based on the results, the AS system was shut down in February 2001, and the sampling frequency was revised to semi-annual. An Interim Remedial Action (IRA) report was submitted in June 2001. The annual Year 3 groundwater sampling event was conducted in July 2001, and the report was completed in March 2002. During the January 2002 sampling event, the maximum trichloroethane (TCE) concentration in one well at the site exceeded the AS system goal of 1,255 ppb. Monthly samples were collected from this well in April, May, and June 2002. TCE concentrations continued to exceed the remedial objective, and a decision was made to restart the AS system. The system was restarted in July 2002. The second semi-annual Year 4 sampling event was conducted in July 2002, and based on the results, the AS system was turned off in September 2002 and has remained off. The Year 5 semi-annual sampling events were completed in February 2003 and July 2003, and the final annual monitoring report is currently in regulatory review. The latest sampling event was performed in January 2004. A final LUC RD and a final OPS Demonstration report are scheduled for submission during the 4th quarter of FY 2004.					
4	--	Grease Pits (9 acres)	1950s-1983	Waste oils, mess greases	Installation dining facilities and facility oil/water separators	Multiple shallow pits were excavated to dispose of liquid wastes (grease from dining facilities and waste oils from oil/water separators) and then covered with fill.
	Current Investigative Status: Field investigation work plan was submitted in March 1995. Field screening activities (includes surface and subsurface soil sampling and monitoring well installation) were completed in June 1997. Groundwater sampling was completed in August 1997. The final Technical Memorandum for No Further Action (NFA) was submitted in September 1998.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
5	OU 2	Oil Disposal Area Northwest (100 ft in diameter)	1950s	Oil, fuel	Fuel farms	Shallow, unlined pit where liquid wastes were disposed (petroleum products present)
	Interim Action: Interim ROD was signed in September 1994. IRA was initiated in March 1995 for source removal. IRA included removal and disposal of free petroleum product and removal and treatment of contaminated soil using bioremediation. Per BCT recommendation, the IRA (bioremediation) activities were discontinued in June 1996. Current Investigative Status: Remedial Action (RA) reports were submitted in May 1995. Final ROD was submitted in September 1995. The remedial alternative included excavation and treatment of sediment in drainage ditch, on-site treatment of contaminated groundwater, and a restriction on all use of groundwater from the surficial aquifer. Due to discontinuation of the interim action, the ROD was amended. The Amended ROD was issued in January 2000. A Technical Memorandum letter report about the free-product investigation was submitted in September 2000. The remedial actions for soil and sediment were initiated in April 1998. For this effort, approximately 2,100 cubic yards of soil were excavated from Site 5 and disposed off site. Approximately 330 cubic yards of sediment were excavated from the adjacent drainage ditch and backfilled in the excavated soil area. Previously treated Site 5 soil was used to backfill the remainder of the soil excavation. This effort was completed in July 1998. The final groundwater remedial design for AS was submitted in May 1998. Two groundwater sampling events were conducted to assess the potential of natural attenuation as a remedial alternative. Based on data collected during these sampling events, natural attenuation appeared to be a viable remedial alternative at Site 5. The annual summary report for the Year 1 Monitoring Program was completed in September 1999. Recommendations included reducing monitoring to semi-annual events. The Year 2 annual sampling event was conducted in February 2000 and recommended continuation of the semi-annual sampling. The Year 3 semi-annual groundwater monitoring events were completed in August 2000 and January 2001. The final IRA and Year 3 Groundwater Report was submitted in March 2002. The Year 4 semi-annual groundwater sampling events were conducted in July 2001 and February 2002. The final Year 4 Groundwater Report was submitted in December 2002 and recommended no changes to the semi-annual monitoring program. The Year 5 semi-annual sampling events were conducted in July 2002 and January 2003. A draft monitoring report was submitted in late August 2003, and a final version is currently in preparation. The latest sampling event occurred in January 2004. A final LUC RD and a final OPS Demonstration report are scheduled for submission during the 4th quarter of FY 2004.					
6	--	Lake Fretwell Rubble Disposal Area (3.5 acres)	1950s-1984	Inert rubble	Concrete/asphalt from demolition of runway, construction debris, lumber, scrap metal, cut foliage	Rubble was disposed along banks of a low-lying marsh area by public works; some of the rubble has been overlain with soil and sod; additional rubble is uncovered.
	Current Investigative Status: Field Investigation Plan was submitted in March 1995. Field screening activities (geophysical surveys, monitoring well installation, surface and subsurface soil sampling, surface water and sediment sampling) were conducted in June 1997. Groundwater sampling was completed in August 1997. The draft Technical Memorandum presenting investigation findings was submitted in May 1998. However, the BCT decided that additional sampling was required. Three additional soil sampling events were conducted between April and July 1999 to delineate soil contaminated with arsenic, total recoverable petroleum hydrocarbons (TRPH), and benzo(a)pyrene. A dig and haul package was completed in August 1999. The Navy excavated and disposed of the contaminated soil in August 1999. The final Technical Memorandum for NFA was issued in July 2000.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
7	OU 3	Old Fire Fighting Training Area (1/3 acre)	1950s-1975	Waste fuels, oil, solvents, paint, paint strippers	Fuel farm, AIMD, squadrons, public works shops	Burnable liquid wastes were poured onto metal objects (jets) in shallow, unlined pits and ignited for fire fighting training
	Current Investigative Status: The ROD was submitted in March 1998. A draft soil and groundwater design package was submitted in May 1998. In September 1998, surface soil sampling in support of the RA was conducted to further delineate TRPH, polynuclear aromatic hydrocarbons (PAH), and inorganic contamination. The RA for soil was conducted in December 1998 and the Construction Completion Report indicated NFA for the soil. The groundwater portion of the design package was implemented in August 1998 and consists of annual groundwater monitoring. Annual groundwater monitoring reports were issued in October 1998 and October 1999. Results from the groundwater sampling conducted in July 2000 indicated the concentration of benzene had decreased below the detection limit and Florida cleanup criteria. The annual report (Year 3) recommended that sampling occur in November 2000. The November 2000 sampling event showed a rebound in the benzene concentration in one well. The BCT decided to sample the one well (8S) quarterly. An AS pilot test was conducted at Well 8S in April 2001 after the quarterly sampling event. The Year 4 annual groundwater sampling event was conducted in July 2001, and again the benzene concentration slightly exceeded the target cleanup goal. Another sample was collected in October 2001 and the result was also above the target cleanup goal. Therefore, it was decided to continue the annual monitoring program for Well 8S. The final Year 4 Groundwater Monitoring report was submitted in January 2002. The annual Year 5 sampling event was completed in July 2002 and the final report was submitted in February 2003. A closeout sampling event was completed in February 2003, and a final closeout confirmation event occurred in May 2003. The benzene concentrations during the final confirmation closeout sampling were less than the benzene target cleanup level for Wells 8S and 12S and therefore, a final Remedial Action Report recommending NFA was submitted on September 15, 2003 and was approved by the BCT. The OPS Demonstration report is no longer required.					
8	OU 3	Boresite Range/ Hazardous Waste Storage Area/Fire Fighting Training (6 acres)	1975-1984	Waste fuels, oil, solvents, paint, paint strippers, lead	Fuel farm, AIMD, squadrons, public works shops	Burnable liquid wastes were poured onto metal objects (jets) in shallow, unlined pits and ignited for fire fighting training. Boresite range was used for machine gun and small arms practice. 55-gallon drums of waste were stored at the site and used as targets for practice.
	Current Investigative Status: The ROD was submitted in March 1998. The groundwater remedial design work plan was submitted in June 1998. The Baseline Sampling Event for natural attenuation was conducted in August 1998. The annual summary report for the Year 1 Monitoring Program was completed in July 1999. Recommendations included reducing monitoring to semi-annual events. The second semi-annual sampling event was conducted in February 2000 and recommended continuation of the semi-annual sampling. The 1st Year 3 semi-annual groundwater sampling event was completed in July 2000. A fifth monitoring well was added to the sampling program. The 2nd Year 3 semi-annual groundwater sampling event was conducted in January 2001. The final IRA and Year 3 Groundwater Monitoring report was submitted in February 2002. The Year 4 semi-annual groundwater sampling events were completed in July 2001 and January 2002. The final Year 4 Groundwater Monitoring report, submitted in December 2002, recommended no changes to the current monitoring program. The Year 5 semi-annual sampling events were conducted in July 2002 and January 2003. The final report, submitted in February 2004, recommended no further changes to the monitoring program. The Year 6 semi-annual sampling event occurred in August 2003 and January 2004. In August 1998, surface soil sampling was conducted to further delineate TRPH contamination. The draft soil remedial design, submitted in November 1998, identified excavation of the three pits to the groundwater table, removal of soil exceeding residential criteria to depth of 1 foot, and collection of confirmation samples. Additional sampling was conducted in April 1999 to identify a site-specific protection of groundwater value for TRPH in soil. A dig and haul package was submitted, and soil excavation and disposal related to the TRPH contamination was completed in August 1999. The Source Removal Report was issued in April 2000 and indicated NFA for the soil. A final LUC RD and a final OPS Demonstration report are scheduled for submittal during the 4th quarter of FY 2004.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
9	--	Recent Grease Pits (0.5 acre)	1983-1984	Grease mixed with water	Installation messes	Three shallow pits were used to dispose of kitchen grease; each pit was used until full and then a new pit was excavated
	Current Investigative Status: Field investigation work plan was submitted in March 1995. Field screening activities, except for groundwater sampling, were completed in June 1997 (including geophysical survey, hydrological assessment, monitoring well installation, surface and subsurface soil, surface water and sediment sampling). Groundwater sampling was completed in July 1997. A draft Technical Memorandum presenting investigation results and conclusions was submitted in December 1997. The final technical memorandum for NFA was submitted in July 1998.					
10	OU 4	Rubble Disposal Area (6.5 acres)	1950s-1960s	Inert Rubble	Building demolition debris, runway debris	Surface disposal area with debris (demolition, roadway, metal); information is limited
	Current Investigative Status: The final Remedial Investigation (RI) report was submitted in November 1996. The RI report presented an NFA recommendation with a proposal to prepare an NFA ROD. The Proposed Plan (PP) was submitted in July 1997. Final ROD was submitted in August 1997. One detection of arsenic was observed above its background criterion, and in December 1998, soil sampling was conducted to delineate this area. A dig and haul package was submitted, and soil excavation and disposal related to arsenic contamination were completed in August 1999. An Explanation of Significant Difference (ESD) was prepared in June 1999. Soil excavation and disposal was completed in September 1999. The Remedial Action Report was issued in April 2000 and indicated NFA for the soil.					
11	OU 6	Golf Course Pesticide Disposal Area	1970s-1978	Pesticide, fungicide, and herbicide containers, vehicles, metal debris	Golf course maintenance area	Reportedly, between 200 and 400 empty 5-gallon cans that had contained pesticides were buried at the site; a limited number of full containers of pesticides were buried in 1978.
	Interim Actions: Final Interim ROD was submitted to the regulatory agencies in August 1994. The IRA was completed in January 1996. The pit was lined with plastic and a fence was placed around the open pit. The remedial action completion report was submitted on October 18, 1996. Revisions to the Remedial Action Report were submitted on May 16, 1997. Current Investigative Status: The ROD was finalized and signed in September 1998. The draft design for soil treatment was submitted in August 1998. A soil removal in accordance with the final remedial action occurred in December 1998. During the removal action, pesticide containers were discovered and disposed accordingly. A geophysical investigation was conducted in February 1999 to assess whether additional buried containers remained on site. Based on the anomalies found during this investigation, test pitting was conducted in the second quarter of FY 2000 (January to March 2000). A Soil Remedial Action Report Addendum was issued in August 2000 and indicated NFA for the soil. The remedial design for groundwater was submitted in November 1998. The baseline groundwater sampling event was conducted in December 1998. The annual summary report for the Year 1 Quarterly Monitoring Program was completed in November 1999. Recommendations included reducing monitoring to semi-annual events. The Year 2 sampling events were conducted in January and August 2000. The Year 2 Annual Groundwater Monitoring Report was completed in December 2000 and recommended that no changes be made in the program. The Year 3 semi-annual sampling events were conducted in January and July 2001, and the final Year 3 Annual Groundwater Monitoring report was submitted in January 2002. The Year 4 semi-annual sampling events were completed in January and July 2002. A final IRA report was completed in August 2002. A site close out sampling event was conducted in October 2002, and the results of that sampling indicated that target cleanup levels are being met. A Final Remedial Action and Year 4 Annual Groundwater Monitoring Report recommending NFA at this site was submitted in June 2003 and was approved by the BCT. An OPS Demonstration report is no longer required.					
12	--	Public Works Rubble Disposal Area (0.5 acre)	1970s-1984	Inert rubble, lumber, concrete, wire, cable, scrap metal, drums	Public works	Majority of rubble has been buried approximately 3 feet below land surface, some rubble is above ground.
	Current Investigative Status: Field investigation work plan was submitted March 1995. Field screening activities (geophysical survey, hydrological assessment, monitoring well installation, surface and subsurface soil sampling, groundwater sampling and surface water and sediment sampling) were completed in August 1997. The Technical Memorandum for NFA was submitted in September 1998 and regulatory concurrence was received in October 1998.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
13	--	Day Tank 1-Fuel Spill (1.5 acres)	1981	JP-5 fuel	Day tank	Location of fuel spill in 1981; approximately 500,000 gallons of JP-5 fuel were spilled; approximately 250,000 gallons were recovered.
	Current Investigative Status: Transferred to the petroleum program.					
14	OU 5	Blue 5 Ordnance Disposal Area (4.5 acres)	1967-1977	Fuses, 100-pound bombs, large munitions, lulu fuses, other explosive materials	Installation ordnance disposal operations	Ordnance disposal by open detonation or burning
	Current Investigative Status: The final RI report was submitted in October 1997. The final Feasibility Study (FS) report and the PP were submitted in March 1998. The ROD was submitted in July 1998. The ROD selected the NFA remedy.					
15	OU 5	Blue 10 Ordnance Disposal Area (10 acres)	1960s-1977	Small arms, parachute/distress flares, Mark IV signal cartridges, rocket igniters, CADS, 5- and 2.75-inch rockets	Installation ordnance disposal operations	Ordnance disposal by combustion in a chamber with ashes being spread over the site.
	Current Investigative Status: The final FS was submitted in March 1998. An ecological study was conducted in September 1998. Additional sampling was conducted in FY 1999 to fill in data gaps for lead and PAH contamination. A sampling and analysis program of soil and soil invertebrates was conducted in June 2001 to assist in the development of Preliminary Remediation Goals (PRGs) for the site. The remedial goals have been identified and agreed upon by the BCT, and a revised FS for soil is currently in preparation. A PP and a ROD will be completed after the revised FS is finalized. A final Technical Memorandum for NFA for groundwater (no additional monitoring) at Site 15 was submitted in August 2001.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
16	OU 7	AIMD Seepage Pit (40x3x10 ft)	1960-1980	Solvents, heavy metals, acids, blasting grit, paint residue, photo wastes	Building 313, jet engine maintenance shop	Seepage pit used to drain wastewater (containing solvents, paint, grease, metals) generated from Building 313 operations into area soils; holding tank for wastewater is also located at Site 16; glass bead separator and associated piping also present.
	Interim Remedial Action: Focused FS and remedial design for the removal of holding tank and impacted soils were issued. Final responsiveness summary and Interim ROD were submitted in March 1994. The removal and closure of the NDI Holding Tank was completed in June 1994. Final NDI Holding Tank Closure Certification and Report was submitted in September 1994. Investigative Status: The ROD was submitted in August 1996. The remedial design for Site 16 was revised and consisted of remedial actions proposed for the source area and storm sewer system as identified below. An Amended PP and Amended ROD were submitted in the second quarter of FY 1999. Storm Sewer System: A pilot-scale Treatability Study work plan for the storm sewer system was submitted in April 1998. The pilot study for the Storm Sewer System was completed in April/May 1998 and a pilot-scale treatability study report was submitted in June 1998. The draft Storm Sewer Remedial Design was submitted in August 1998. A storm sewer investigation was conducted in August 1998 to evaluate the remaining portions of the Storm Sewer System near Site 16. The storm sewer system was repaired in June 1999. Source Area: A decision was made based on new information to revise the remedial action to AS of the source and natural attenuation of the plume in the Amended ROD. The pilot-scale soil vapor extraction (SVE) work plan was finalized and implemented in September 1998. The baseline groundwater sampling event was conducted in September 1998. The annual summary report for the Year 1 Monitoring Program was completed in September 1999. The annual report recommended quarterly sampling in the source area and semi-annual sampling of the wells in the plume. The AS/SVE system installation was completed in June 1999, the operation of the system began in late June 1999, and the system was shut down in May 2000. The Year 2 annual sampling event was conducted in April 2000. The Year 2 annual report recommended that the groundwater monitoring program be optimized (reduced analyses and number of monitoring wells). The November 2000 quarterly sampling event showed a rebound of the COCs in the source area. The BCT decided to restart the AS/SVE system. The AS/SVE system was restarted on December 22, 2000. A groundwater sampling event was conducted in January 2001. Based on the results, the AS system was shut down in February 2001 and the sampling frequency was revised to semi-annual. The 2nd semi-annual Year 3 sampling event was conducted in July 2001, and the final report was submitted in April 2002. An IRA/SVE report was completed in June 2001 and recommended the continued monitoring of groundwater to determine if further operation of AS/SVE system is necessary. Monitoring, institutional controls, and 5-Year Reviews will continue until Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Levels (GCTLs) are achieved. A groundwater sampling event was conducted in February 2002, and the results were presented at the March 2002 BCT meeting. Results showed that the TCE source area concentrations remain less than the target of 1,000 ppb and therefore the AS system will remain off. The Year 4 semi-annual sampling events were completed during February and July 2002. The final Year 4 Groundwater Monitoring report was submitted during August 2003. No changes to the existing monitoring program were recommended. The Year 5 semi-annual sampling events were conducted in February 2003 and July 2003. The draft monitoring report was submitted in February 2004 and is currently in regulatory review. A final LUC RD and a final OPS Demonstration report are scheduled for submittal during the 4th quarter of FY 2004.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
17	OU 2	Oil/Sludge Disposal Pit Southwest (2 acres)	Late 1960s - early 1970s	Waste fuels/oils	Fuel farm	Unlined shallow disposal pit
	Interim Remedial Action: Interim ROD was signed in September 1994. An IRA was initiated in February 1995 for source removal and on-site treatment of contaminated soil. A remedial action completion report was submitted in September 1996. Current Investigative Status: The ROD was submitted September 1995. The remedial alternative is intrinsic bioremediation with an aggressive monitoring program. The final remedial design work plan was submitted in January 1997. The first year (4 quarters) of natural attenuation monitoring was completed in June 1998. An annual report was submitted in June 1998 recommending semi-annual monitoring. Semi-annual monitoring is ongoing, and the Year 2 annual report was issued in June 1999. The recommendations from the Year 2 annual report included discontinuing the analysis of several COCs and several natural attenuation parameters. The Year 3 annual sampling event was conducted in February 2000 and recommended decreasing the number of wells to be sampled. The Year 4 semi-annual groundwater sampling events were completed in July 2000 and January 2001. The Year 4 annual monitoring report was submitted in March 2002 and recommended no changes in the monitoring program. The Year 5 semi-annual groundwater sampling events were completed in July 2001 and January 2002. The final Year 5 Groundwater Monitoring report was completed in October 2002 and also recommended no changes to the monitoring program. The Year 6 semi-annual sampling events were completed in July 2002 and February 2003. The draft annual monitoring report for Year 6 was submitted at the end of August 2003 and the final version of is currently in preparation. The Year 7 sampling events occurred in July 2003 and January 2004. A final LUC RD and a final OPS Demonstration report are scheduled for submittal during the 4th quarter of FY 2004.					
18	--	Ammunition Disposal Area (0.1 acre)	1940s – 1950	Ammunition crates, miscellaneous ordnance	Magazine area	Waste material from a nearby magazine area was trucked in and dumped over the site during the 1940s until 1950. Reportedly, all munitions were removed.
	Current Investigative Status: Field investigation work plan was submitted in March 1995. Field screening activities (monitoring well installation, surface and subsurface soil, surface water, and sediment sampling) were completed in August 1997. The draft Technical Memorandum for NFA was submitted in March 1998. The final Technical Memorandum for NFA was submitted in October 1998.					
19	--	Rowell Creek Rubble Disposal Area (3 acres)	Section until 1991	Concrete, construction debris, asphalt, wood debris, trash	Construction and operations	Limited information on disposal practices
	Current Investigative Status: Field investigation work plan was submitted in March 1995. Field screening activities (records and document search, geophysical surveys, monitoring well installation, surface and subsurface soil, surface water and sediment sampling) were completed in August 1997. The draft Technical Memorandum for NFA was submitted in January 1998. The BCT recommended that the report be finalized after completion of the test pitting activities at the site. A letter report identifying test pit locations was submitted in May 1998. The Technical Memorandum for NFA was submitted in November 1998.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
21	OU 10	Golf Course Pesticide Mixing Area	1950s to present	Pesticides, TRPH, and arsenic	Golf course maintenance area	Site activities included the storage and maintenance of golf course maintenance equipment, cleaning and rinsing of chemical-dispensing equipment, and preparation of chemical solutions. Empty containers at one time were disposed in a pile on the northwest side of the site. Rinsing took place at one of two places: on the east side of Building 238, and on a concrete pad on the north side of the site. At both locations, rinse water discharged into the ditch along the east side of the site.
	Current Investigative Status: Initial investigation began in 1991. Beginning in 1998, field investigations were conducted to delineate soil and groundwater contamination. Soil contamination has been delineated and a final Action Memorandum for soil removal to meet industrial criteria was issued in April 2001. The soil remedial action was completed during June 2001. A draft Action Memorandum Addendum for removal of soil to residential risk levels was submitted in May 2002, and the remedial action was completed in September 2002. The groundwater contamination is being addressed in the Remedial Investigation/Feasibility Study (RI/FS) process. The RI was submitted in October 2001, and the final FS was submitted in September 2002. A final revised FS reflecting industrial land use was submitted in October 2003, and a draft revised PP, submitted shortly thereafter, is currently in regulatory review. A revised draft ROD will be submitted after LUC language is finalized and regulatory comments on the draft revised PP have been finalized. A work plan for long-term groundwater monitoring (the selected alternative) was submitted in June 2002, and the two semi-annual sampling events for the first year occurred in July 2002 and February 2003. The Year 1 draft annual monitoring report was completed in December 2003 and the final version is currently in preparation. The Year 2 semi-annual sampling events were performed during August 2003 and January 2004. The BCT agreed that for the third year of monitoring, the frequency would be reduced to annually. The Year 3 annual sampling event is scheduled for July 2004. A final LUC RD and a final OPS Demonstration report are scheduled for submittal during the 2nd quarter of FY 2005.					
25	OU 10	Former Transformer Storage Yard	1953 to 1999	Pesticides, polychlorinated biphenyls (PCBs), and benzo(a)pyrene	Storage of pesticides and the storage of old transformers	Limited information on practices. Site activities included the storage of pesticides and old transformers, operation of the wash rack, and service of equipment.
	Current Investigative Status: Initial investigation began in 1997. Beginning in 1998, field investigations were conducted to delineate soil and groundwater contamination. The soil contamination was delineated and a final Action Memorandum for soil removal was issued in April 2001. A soil remedial action was completed during May 2001. The groundwater contamination is being addressed in the RI/FS process. The RI and FS reports were submitted in October 2001. A final PP was submitted in July 2003 and a revised draft final ROD was submitted for regulatory review in May 2003. The final ROD is being prepared for submittal during the 4th quarter of FY 2004. A work plan for long-term groundwater monitoring (the selected alternative) was submitted in June 2002, and the two semi-annual sampling events for the first year occurred in July 2002 and February 2003. The Year 1 draft annual monitoring report was completed in December 2003 and the final version is currently in preparation. The Year 2 semi-annual sampling events were performed during August 2003 and January 2004. The BCT agreed that for the third year of monitoring, the frequency would be reduced to annually. The Year 3 annual sampling event is scheduled for July 2004. A final LUC RD and a final OPS Demonstration report will be submitted during the 4th quarter of FY 2004.					
32	OU 12	DRMO Asphalt Storage Yard		PAHs and metals	Hazardous materials storage	Site was used for unpermitted storage of hazardous materials in drums.
	Current Investigative Status: Initial investigation began in 1993. A SAR, issued in 1996, indicated that metals detected in surface soil at the site may represent a hazard. Field investigations were conducted between May 1999 and April 2000 to delineate soil contamination. A final Action Memorandum for soil removal was prepared in May 2000, and 140 tons of soil were excavated and disposed in August 2000. Because contaminated soil remains at the site beneath a paved storage area, an Engineering Evaluation/Cost Analysis (EE/CA) was prepared and submitted in August 2002. The EE/CA recommended groundwater monitoring with LUCs as the preferred remedial action alternative at the site. A final PP was submitted in mid-September 2003 and a draft ROD, submitted in late August 2003, is currently in review by the Navy. The final ROD is scheduled for submittal during the 4th quarter of FY 2004 and a final LUC RD is also scheduled for submittal during the 4th quarter of FY 2004.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
36	OU 9	Control Tower TCE Plume		Chlorinated solvent, benzene, toluene, ethylbenzene, and xylene (BTEX) plume.	Groundwater plume located south of Building 82, the control tower.	The plume was discovered during the Day Tank 2 groundwater plume investigation. The plume's major contaminants are TCE and BTEX
	Current Investigative Status: An RI for Site 36 (performed in conjunction with Site 37) was initiated in November 1998 and concluded in January 1999. The draft RI and FS reports were issued in the 3rd quarter of FY 1999. The final RI Report was completed in August 1999. The remediation of Day Tank 2 groundwater contamination is included in the Site 36 groundwater remediation. The FS and PP were issued in September 2000. The ROD was finalized and signed in June 2001. The final remedial design for the AS system was submitted in September 2001, and the remedial action construction began in December 2001. The AS system began operation at one hot spot in March 2002. The construction for the entire system was completed in July 2002. Also, a long-term monitoring plan for groundwater was submitted in January 2001. The first year of quarterly sampling activities concluded in October 2001. The final Year 1 Groundwater Monitoring report was submitted in March 2003 and recommended no changes to the monitoring program. The second year of quarterly sampling activities concluded in October 2002. The final Year 2 Annual Groundwater Monitoring report was submitted in October 2003 and recommended decreasing the monitoring frequency to semi-annual. The BCT determined that monitoring should remain on a quarterly basis for the first two quarters of Year 3, and then sampling frequency will decrease to semi-annual beginning with the October/November 2003 sampling event. The third year of monitoring concluded in November 2003 and the draft Year 3 Annual Groundwater Monitoring Report is scheduled to be submitted in early May 2004. A final LUC RD and a final OPS Demonstration report are scheduled for submittal during the 4th quarter of FY 2004.					
37	OU 9	Hangars 13 and 14 DCE Plume		Chlorinated solvent and BTEX plume	Groundwater plume located southeast of Hangars 13 and 14	The plume was discovered as part of the flightline groundwater investigation. Its major contaminants are dichloroethene and BTEX
	Current Investigative Status: An RI for Site 37 (performed in conjunction with Site 36) was initiated in November 1998 and concluded in January 1999. The draft RI and FS reports were issued in the third quarter of FY 1999. The final RI Report was completed in August 1999. The FS and PP were issued in September 2000. The ROD was finalized and signed in June 2001. The final Remedial Design for the AS system was submitted in September 2001, and the remedial action construction began in December 2001. The AS system began operation at one Hot Spot in March 2002. Also, a long-term monitoring plan for groundwater and the storm sewer was submitted in January 2001. Excavation of contaminated soil occurred during the last quarter of FY 2001 under the Petroleum Program. The first year of quarterly sampling activities concluded in October 2001. The final Year 1 Groundwater Monitoring report was submitted in March 2003 and recommended no changes to the monitoring program. The second year of quarterly sampling activities concluded in October 2002. The final Year 2 Annual Groundwater Monitoring report was submitted in October 2003 and recommended decreasing the monitoring frequency to semi-annual. The BCT determined that monitoring should remain on a quarterly basis for the first two quarters of Year 3, and then sampling frequency will decrease to semi-annual beginning with the October/November 2003 sampling event. The third year of monitoring concluded in November 2003 and the draft Year 3 Annual Groundwater Monitoring Report is scheduled to be submitted in early May 2004. A final LUC RD and a final OPS Demonstration report are scheduled for submission during the 4th quarter of FY 2004.					
42	OU 12	Former Boiler House / Steam Plant and General Storehouse	1940s to 1960s	PAHs, TRPH, and metals	Steam generation	Limited information on practices since the buildings were all demolished in the late 1950s and early 1960s.
	Current Investigative Status: Initial investigation began in 1994. In 1999, a Sampling and Analysis Outline Report (SAOR) for the Yellow Water Weapons Area indicated that arsenic, barium, and benzo(a)pyrene at Site 42 exceeded FDEP Soil Contaminant Target Levels (SCTLs). Further field investigations were conducted between April 1999 and April 2000 to delineate soil contamination. A final Action Memorandum for soil removal was submitted in January 2001, and 2,420 tons of soil were excavated and disposed in February and March 2001. A Technical Memorandum for NFA was submitted in March 2002. An NFA PP was issued in June 2002, and an NFA ROD was signed in October 2002.					
44	OU 12	Ditch from DRMO to Wastewater Treatment Plant	1942 to 1999	PAHs, PCBs, TRPH, pesticides and metals	Drainage Ditch	USTs were present in the area of the Wastewater Treatment Plant (WWTP). Sewage discharges from WWTP occurred. Wash water containing solvents accidentally discharged to ditch at least once.
	Current Investigative Status: Initial investigation began in 1993. Field investigations were conducted between June 1999 and April 2000 to delineate soil contamination and evaluate ecological risks from sediment and surface water pathways. An Action Memorandum for soil removal was submitted in June 2000, and 290 tons of soil were excavated and disposed in September 2000. A Technical Memorandum for NFA was submitted in January 2002. It was determined that ecological risks at the site are negligible. An NFA PP was issued in June 2002, and an NFA ROD was signed in October 2002.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
45	OU 11	Facility 11, Steam Generating Plant	1941 to 1999	Benzo(a)pyrene, arsenic, and vanadium	Activities related to steam generation	Limited information on practices at the site. Activities are related to steam generation for the base.
	Current Investigative Status: Initial investigation began in 1995. Beginning in 1998, field investigations were conducted to delineate soil and groundwater contamination. The soil contamination has been delineated, and a final Action Memorandum for soil removal was issued in May 2000. A soil remedial action was conducted in August 2000. The groundwater contamination (vanadium) is being addressed under the RI/FS process. The RI was submitted in June 2001, the FS was submitted in August 2001, the PP was submitted in July 2003, and the final ROD was submitted in December 2003. Annual long-term groundwater monitoring (the selected alternative) began in early August 2002. The final Annual Year 1 Groundwater Monitoring report was submitted in February 2003 and recommended no changes to the current program. The Year 2 annual sampling event was performed during August 2003 and the draft Annual Year 2 report, submitted in February 2004, is currently in regulatory review. The Year 3 annual sampling event will be moved up from July 2004 to May 2004 so that the data can be placed in the Five-Year Review Report. A final LUC RD is scheduled for submittal during the 3rd quarter of FY 2004, and a final OPS Demonstration report is scheduled for submittal during the 4th quarter of FY 2004.					
49	OU 5	Skeet Range	1965 to 1998	PAHs and metals	Clay pigeons and lead shot	Recreational skeet shooting
	Current Investigative Status: Initial investigation began in 1999. Soil sampling indicated PAH and lead soil contamination. Additional soil sampling from 1999 to 2001 was conducted to delineate the extent of contamination. A draft EE/CA was prepared in August 2001 to evaluate alternatives for site remediation. The final EE/CA was submitted in February 2002. An Action Memorandum for soil removal was submitted in May 2002 and the remedial excavation, which began in August 2002, was completed at the end of December 2003. The delay was due to flooding over parts of the site. A draft PP for NFA was submitted in January 2004 and is currently in regulatory review. A draft ROD for NFA is scheduled for submittal during the 3rd quarter of FY 2004.					
57	OU 9	Flight Line Building 824A & Day Tank 1 Area	1957 to 1999	BTEX and chlorinated solvents	BTEX from Day Tank 1 Area	Aircraft ground support
	Current Investigative Status: Initial investigation began in 1997. In 1999, as part of the MB-18 SAOR, contamination of groundwater with PAHs and chlorinated compounds was reported. Additional well installation and groundwater sampling activities to delineate the extent of contamination were conducted in 2000. Because of the proximity to existing Day Tank 1 wells (Petroleum Program), and because of the presence of some common groundwater contaminants (BTEX components), it was decided in April 2001 that a comprehensive evaluation of groundwater in the entire area was required under the Installation Restoration (IR) program. The RI work plan for this investigation was submitted in August 2001, and the RI field investigation occurred from September to December 2001. The final RI report was submitted in August 2002, the final FS report was submitted in October 2002, and the final PP recommending long-term monitoring with LUCs as the remedial action for this site was submitted in July 2003. A final ROD is scheduled for submittal during the 2nd quarter of FY 2004. A final Remedial Design Work Plan for Long-Term Monitoring was submitted in April 2003, and the Year 1 quarterly groundwater monitoring events occurred in May 2003, July 2003, October 2003, and January 2004. A draft Year 1 groundwater monitoring report is scheduled to be submitted during the 3rd Quarter of FY 2004. Beginning with the next monitoring event in July 2004, samples will be collected semi-annually. A final LUC RD and a final OPS Demonstration report are scheduled for submittal during the 2nd quarter of FY 2005. The next monitoring event is scheduled for August 2004.					
58	OU 9	Flight Line Building 312	1957 to 1999	BTEX and chlorinated solvents	UST, oil/water separator, wash rack and paint booth	Aircraft maintenance
	Current Investigative Status: Initial investigation began in 1996 as part of the Petroleum Program. The SAR reported naphthalene and metals in groundwater and arsenic in sediment in excess of criteria. Resampling of an existing well in 1999 showed naphthalene and dissolved iron in excess of criteria. A SARA issued in 1999 recommended evaluation of groundwater under the Petroleum Program. Phase I and Phase II groundwater investigations conducted in 2000 included sampling of new and existing wells and reported exceedances of chlorinated compounds and PAHs. Based on these results, it was decided that the site would be addressed under the IR program. The RI work plan for this investigation was submitted in August 2001, and the RI field investigation occurred in September 2001. The final RI report was submitted in August 2002, the final FS report was submitted in October 2002, and the final PP recommending Long-Term Monitoring with LUCs as the remedial action was submitted in July 2003. A final ROD is scheduled for submittal during the 2nd quarter of FY 2004. A final Remedial Design Work Plan for Long-Term Monitoring was submitted in April 2003, and the Year 1 quarterly groundwater monitoring events occurred in May 2003, July 2003, October 2003, and January 2004. A draft Year 1 groundwater monitoring report is scheduled to be submitted during the 3rd Quarter of FY 2004. Beginning with the next monitoring event in July 2004, samples will be collected semi-annually. A final LUC RD and a final OPS Demonstration report are scheduled for submittal during the 2nd quarter of FY 2005. The next monitoring event is scheduled for August 2004.					

TABLE 3-1

SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site No.	Operable Unit (OU)	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
PSC 51	--	Golf Course	1950s to present	Pesticides and metals	Golf course	Limited information on practices. Site activities are an active golf course.
	Current Investigative Status: Initial investigation began in April 1999. Field investigations were conducted to delineate soil contamination. The groundwater, surface water, and sediment in the streams and ponds were investigated and a Technical Memorandum for NFA was submitted in November 1999. A revised Technical Memorandum recommending NFA at this site was submitted in September 2003 and approved by the BCT.					
OGC	OU 12	Old Golf Course	1940s to 1950s	Pesticides and arsenic	Golf course	Limited information on practices. Site activities were an active golf course until the 1950s.
	Current Investigative Status: Initial investigation began in 1993. Field investigations were conducted between November 1999 and May 2000 to delineate soil contamination at the former tee boxes and greens. A final Action Memorandum for soil removal was submitted in July 2000, and 480 tons of soil were excavated and disposed in August 2000. A Technical Memorandum for NFA was submitted in August 2001. An NFA PP was issued in June 2002, and a NFA ROD was signed in October 2002.					

TABLE 3-2

SITE DESCRIPTION CHART
PETROLEUM PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site Name	Site Location	Waste Type	Sources	Description of Activity
Jet Engine Test Cell/Building 334	Adjacent to Building 339	JP-5 Jet Fuel	Two 20,000-gallon asphalt-coated, steel tanks with corrosion-resistant metal piping with cathodic protection installed in 1953 (Tanks 339-TC1 and 339-TC2). One 5,000-gallon steel Aboveground storage tank (AST) (339-TC3) (removed in 1995).	Past releases have occurred due to tank overfilling. In October 1989, efforts to leak test Tanks TC1 and TC2 failed when inadequate seals were discovered between the manway covers and tank walls.
Current Investigative Status: A Preliminary Contamination Assessment (CA) was initiated in December 1990 by ABB Environmental Services, Inc. (ABB-ES). United States Corps Of Engineers (U.S. COE) conducted a soil investigation in January 1991. The CA was completed in 1993 and a Contamination Assessment Report (CAR) Addendum (CARA) was submitted in March 1994. A CARA II was submitted in November 1994. Subsequently, an Alternate Procedures Request (APR) for free-product recovery was submitted on August 4, 1995. The Remedial Action Plan (RAP) submitted on November 22, 1996 was approved by Florida Department of Environmental Protection (FDEP) in February 1997. Monitoring wells and piezometers within the soil excavation area were abandoned in June 1997. A letter report identifying a variation in soil treatment from thermal treatment to biopiles was submitted in July 1997. Interim Remedial Action (IRA) for soil excavation was completed in September 1997. Soil removal activities took place during the first quarter of FY 1999. Quarterly natural attenuation sampling has been temporarily suspended pending completion of an additional investigation. Additional assessment activities were conducted in May and June 2001 using direct push technology (DPT) / mobile laboratory followed by installation of permanent monitoring wells to further delineate the dissolved hydrocarbon plume. The Site Assessment Report Addendum (SARA) was prepared and concluded that two plumes exist on site and some additional soil removal is required on the south side of Building 334. Two other areas where contaminated soil could not be excavated were recommended for institutional controls to prevent exposure. A RAP was recommended to address the contaminated (accessible) soil and groundwater on the site. The RAP was submitted on September 27, 2002. FDEP issued a response on November 30, 2002 requesting additional information and clarification. A RAP Addendum was submitted on January 20, 2003 and approved by FDEP on February 18, 2003. The sparge system was started on November 17, 2003. Other Information: Part of Building 339 was demolished and rebuilt in June 1991. About 137.6 tons of soil was sent to Anderson Columbia for incineration. A 200-gallon spill occurred adjacent to Building 339 in July 1995. Soil was excavated and placed in 55-gallon drums.				
Sal Taylor Creek Containment Areas (Dam Sites)	Along Sal Taylor Creek	JP-5 Jet Fuel	JP-5 fuel spill from the North Fuel Farm (NFF) Tank 76E that occurred on February 10, 1991.	The seven dam sites are located along Sal Taylor Creek and emergency response actions were conducted at these sites after the February 10, 1991 spill. Heavy equipment and vacuum trucks were used to recover the fuel from Sal Taylor Creek.
Current Investigative Status: This site covers a total of 7 areas and includes the Aviation Ordnance (AVORD) Dam Site, the North Containment Pond Site, the AVORD Perimeter Road Site, the Gate 10 Dam Site, the Alpha Dam Site, the Possum Dam Site, and the Gate 14 Dam Site. A CA was conducted in 1991 and 1994. The field investigation included soil borings, surface water and sediment sampling, and monitoring well installation. A CAR was submitted in July 1994. Based on FDEP comments, further investigations were conducted in 1995. The investigations included toxicity assessment and surface water and sediment sampling. A CARA was submitted in March 1996 and approved by FDEP in May 1996. Per Base Realignment and Closure (BRAC) Cleanup Team (BCT) recommendations, sediment samples were collected for toxicity testing in December 1996. Samples were collected from the dam sites where biomonitoring or remediation was recommended in the CARA. Toxicity testing results were submitted in February 1997. A CARA recommending NFA at all dam sites, except Possum Dam, was submitted on May 19, 1997. An additional sample was collected at the Possum Dam site in December 1997. A CARA recommending no further action (NFA) at Possum Dam was submitted in February 1998.				
103rd Street Pipeline	Intersection of 103rd and Ave. A	Type JP-5 Jet fuel	A "pinhole" leak in the 8-inch pipeline conveying fuel from NAS Jacksonville to NAS Cecil Field was discovered and repaired in the Spring of 1997.	Following discovery of the release, an IRA was performed to remove petroleum impacted soils and to repair the pipeline. The pipeline was then taken out of service. In the spring of 1998, a site assessment was initiated.
Current Investigative Status: Investigation activities were conducted from September to December 1998 to delineate free product and a SAR was submitted in February 1999. A RAP was submitted in August 1999 recommending AS/SVE to address soil and groundwater plumes. The installation of the AS/SVE system was completed in the 3rd quarter of FY 2000, it began operation in June 2000, and continues to operate as of September 2002. This is a Remedial Action Contractor (RAC) site.				

TABLE 3-2

SITE DESCRIPTION CHART
PETROLEUM PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site Name	Site Location	Waste Type	Sources	Description of Activity
JP-5 Spill Area	Adjacent to Tank 76-E, northeast corner of NFF	JP-5 Jet Fuel	February 10, 1991 JP-5 fuel spill	On February 10, 1991, JP-5 fuel overflowed from Tank 76-E. The fuel flowed down the slope on the east side of the earth-mounded tank into a small ditch that discharges into Sal Taylor Creek.
Current Investigative Status: A preliminary CA was conducted in 1991 and a CA was conducted from May 27 through June 5, 1992. The investigation included soil borings and monitoring well installation and the CAR was submitted in July 1994. Based on FDEP comments on the CAR, further investigations were conducted in 1995. A CARA, submitted in March 1996, was approved by FDEP in May 1996. Recommendations for remedial actions were included in the RAP for the NFF site. Supplemental samples were collected in September 1997, and a CAR letter report was submitted in November 1997. Other Information: From September 1995 through January 1996, an IRA was conducted by Bechtel. The IRA included removal of about 2,750 cubic yards of contaminated soil (>1000 ppm) from the site. Additional soil removal activities were performed in July and August 1999.				
South Fuel Farm	Facility 43, south of intersection of 2nd Street and "A" Avenue	JP-5 Jet Fuel	Several tanks that were removed in the 1990s.	Location of several ASTs, Underground storage tanks (USTs), and Earth-mounted tanks (EMTs). All ASTs were removed in 1995 and all USTs and EMTs (except Tank 342-DT) were removed in July 1994.
Current Investigative Status: CA was completed in December 1991 and CAR was submitted in July 1992. Upon review of CAR, FDEP requested additional investigation at this site. Supplemental investigation was completed in July 1995 and CARA was submitted in January 1996. The CARA was approved in April 1996. A RAP addendum submitted on October 28, 1996 was approved by FDEP in February 1997. The remedial system (biosparging) was installed in February 1998 and system start-up activities were completed in March 1998. The remedial system was operating, but not to the satisfaction of the Navy. A supplemental site investigation and system evaluation were completed in November 2002. Additional soil sampling was performed in May and October 2003 to better define the extent of soil contamination. A RAP Addendum documenting the results of the supplemental assessment and system evaluation, and recommending modifications to improve the performance of the system is currently in preparation.				
Truck Stand Site	Loop road south of NFF	JP-5 Jet Fuel	Used as loading station for the flightline refueling tank trucks. The site consists of a control building, a pumping station, asphalt and concrete parking area, and a retention pond.	Probable spills and soil staining
Current Investigative Status: A preliminary CA was conducted in 1990. A CA was completed in 1991 and CAR was submitted in May 1992. Subsequently, CARA was submitted in July 1994. Upon review of CARA, FDEP recommended additional investigation that included monitoring well installation, collection of groundwater samples, and advancement of soil borings. CARA was submitted to FDEP in March 1996. The CARA II was approved by FDEP in April 1996. The Monitoring Only Plan, submitted on December 6, 1996, was approved in February 1997. The four quarterly sampling events were completed. A letter report presenting the sampling results for the 1st, 2nd, and 3rd quarter sampling was submitted. The annual monitoring report was submitted in June 1998. Monitoring activities have been changed to semi-annual events. The first semi-annual event was conducted and associated report was submitted in October 1998. Additional contaminated soil was removed in August 2000 and a sampling event was performed in March 2000. The September 2000 semi-annual groundwater sampling event was postponed because several monitoring wells were destroyed during the source removal activities. The monitoring wells were replaced and the sampling resumed in February 2001, and a report was submitted in April 2001. The April 2001 sampling report recommended that a RAP be prepared. The FDEP concurred with the recommendation. Prior to preparation of the RAP, the BCT agreed to a supplemental assessment to better delineate the groundwater plume. The fieldwork began during the 4th quarter of FY 2002, and it was completed in January 2003. A letter report describing the results of the supplemental work was submitted in June 2003 and is currently in regulatory review. Other Information: An IRA to remove soils saturated with free product was completed in May 1996. Approximately 1,000 cubic yards of soil were excavated. A Remedial Action report was submitted in June 1996.				

TABLE 3-2

SITE DESCRIPTION CHART
PETROLEUM PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site Name	Site Location	Waste Type	Sources	Description of Activity
Sal Taylor Creek Bank Sites	Along Sal Taylor Creek	JP-5 Jet Fuel	February 1991 JP-5 fuel spill	Activities were conducted after the fuel spill.
Current Investigative Status: Nine locations along the banks of Sal Taylor Creek were investigated to determine extent of soil and groundwater contamination due to the 1991 fuel spill. Results of the 1992-93 investigation were presented in the July 1994 CAR. Per FDEP recommendations, additional investigations were completed in September 1995. The CARA submitted in March 1996 was approved by FDEP in April 1996. The CARA recommended natural biodegradation for the remedial action at these sites. Temporary wells were installed in December 1996 at the two locations recommended by FDEP. Groundwater samples were collected from these wells in January 1997. A CARA presenting the groundwater sampling results from the temporary wells, along with a recommendation for NFA, was submitted on June 16, 1997. The NFA recommendation was approved by FDEP.				
Day Tank 1	Northeast of Jet Road	JP-5 Jet Fuel	200,000-gallon interior-lined asphalt-coated steel tank containing JP-5. Tank was installed in 1956.	Location of fuel spill in 1981; approximately 497,000 gallons of JP-5 fuel were spilled due to overfill; approximately 250,000 gallons were recovered.
Current Investigative Status: Geraghty and Miller conducted a preliminary CA in 1981. CA was initiated by ABB-ES in December 1990. The CA was completed in 1993 and a CARA was submitted to FDEP in December 1993. A RAP was submitted to FDEP in May 1994. The RAP was not approved by FDEP. Consequently, an APR was submitted to FDEP in August 1995 to recover free product. The APR was approved in September 1995. Per FDEP recommendation, five additional wells were installed and sampled in September 1995. The revised RAP was submitted in January 1997. During the June 3, 1997 BCT meeting, the partnering team requested a letter memorandum presenting a phased approach for the RA. The letter memorandum was submitted in July 1997. Natural attenuation sampling took place during the 2nd quarter of FY 1999. Natural attenuation sampling was subsequently discontinued. Day Tank 1 was removed in December 1999 and the excavation of the soil mound occurred in December 1999 and January 2000. Semi-annual groundwater monitoring was conducted in July 2000 and January 2001. Shortly afterward, it was determined that the petroleum plume from Day Tank 1 was co-mingling with a chlorinated solvent plume under investigation near Building 824A. The BCT decided to postpone further groundwater monitoring at Day Tank 1 and expand the scope of the Building 824A (Site 57) to include the Day Tank 1 plume area. The Site 57 investigation also included some free product delineation. At the June 2002 BCT meeting, it was agreed to conduct additional soil delineation outside the original source removal area to address soil contamination encountered by the RAC. In August 2002, a flame ionization detector (FID) was used to delineate soil contamination based on headspace measurements. In October and November 2002, soil samples were collected from about 80 locations to delineate the extent of contamination. Additional temporary monitoring wells were installed to confirm the extent of free product. Additional delineation of soil contamination was completed in early September 2003, and excavation work of the remaining contaminated soil and the free product was completed during the 1st quarter of FY 2004. An SARA was submitted in November 2003, resulting in a removal action being performed during the 1st Quarter of FY 2004. An additional soil investigation will begin during the 3rd Quarter of FY 2004. Other information: An air sparging/soil vapor extraction (AS/SVE) system was installed by JA Jones/CH2M Hill in 2000, and continues to operate. In February 2002, JA Jones began working to locate and close the pipeline that exists between Day Tank 1 and the North-South High Speed Refuelers.				

TABLE 3-2

SITE DESCRIPTION CHART
PETROLEUM PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site Name	Site Location	Waste Type	Sources	Description of Activity
North Fuel Farm Area	Northeast corner of A Avenue and Loop road	JP-5 Fuel	Six 595,000-gallon, interior-lined, asphalt-coated, steel, earth-mounded tanks (76, 76A through 76E). Tanks 76 and 76A were installed in 1952 and remaining tanks were installed in 1954. In 1987, all tanks were relined and overfill protection was installed. In addition, tank 76 was equipped with automatic shut-off system. Tank 76E was taken out of service in 1991.	22,772-gallon spill on August 3, 1987; 913,000-gallon spill on February 10, 1991; and 1,800-gallon spill on November 28, 1993
Initial Remedial Action: Completed installation of a catalytic oxidizer at the NFF site. Also installed 15 extraction wells. Nine of these extraction wells were connected to the bioslurper unit. Quarterly groundwater sampling was completed during this reporting period. Continued free-product recovery activities. The bioslurper system was shut down in April 1998, but the groundwater sumps are being operated. Current Investigative Status: CA was completed in 1991. The CAR was submitted in June 1992. Supplemental investigation was completed in 1993/94. Field work was conducted in April 1994 to investigate the 1,800-gallon spill. In July 1994, FDEP recommended additional investigation that was completed in 1995. CAR Addendum was submitted in April 1996. Subsequently, the CARA was approved by FDEP. Supplemental assessment recommended by the BCT was completed in November 1996. The RAP and the revised CAR Addendum were submitted in January 1997. FDEP comments for the NFF remedial action plan were reviewed at the June 1997 BCT meeting. Supplemental soil samples were collected in September 1997 and the results were presented in a RAP letter memorandum submitted in November 1997. Additional soil samples for Kerosene Analytical Group (KAG) parameters were collected in April 1998. The BCT recommended that a pilot study be conducted to evaluate recirculation wells as a viable alternative for groundwater treatment. The 1999 recirculation well pilot-scale study showed difficulties in operation of the system. The technology was eliminated in favor of air sparging. A RAP Addendum was submitted in August 1999. This addendum also describes the removal of the tanks, earth mound, and soil beneath the tanks. Natural attenuation sampling took place during the second quarter of FY 1999. Natural attenuation sampling was subsequently discontinued. Semi-annual contaminant monitoring only was conducted until July 2000. This monitoring has been suspended until the source removal action has been completed. The source removal actions began in the 3rd quarter of FY 2000 and were completed in mid-February 2001. Supplemental assessment activities were initiated in July 2001. These activities included the use of DPT/Membrane interface probes (MIPs) followed by installation of permanent monitoring wells to evaluate the current conditions and impact of the source removal activities recently conducted at the site. Monitoring well installation and sampling was completed in February 2003 and the results indicated the need for additional wells. The additional well installation was completed in July 2003. The draft Supplemental SAR was submitted to the Navy in September 2003. The final Supplemental SAR was submitted to the FDEP in October 2003, and approved by FDEP on March 5, 2004. A draft RAP is scheduled for submittal during the 4th Quarter of FY 2004. Other information: The soil source removal, conducted by JA Jones/CH2M Hill involved the excavation 140,957.03 tons of petroleum-contaminated soil and the recycling of 19,550 gallons of free product and petroleum contact water. The SRR was approved on February 22, 2002.				
Tank 199	Building 199, Southeast corner of C Avenue and 6th Street	Heating oil	2,000-gallon underground heating oil tank	Leaking UST
Current Investigative Status: A CA plan was prepared in August 1996. The CA was initiated in September 1996 and the field program was completed in December 1996. The field program included soil borings, well installation, groundwater sampling, aquifer testing, and elevation survey. The CAR was submitted in March 1997. Additional soil samples were collected in September 1997, and the results were presented in a CAR memorandum submitted in November 1997. Soil samples for KAG analysis were collected in March 1998. Soil removal activities took place during the 1st quarter of FY 1999. Natural attenuation monitoring began in July 1999 on a semi-annual basis and was changed to annual after the February 2000 event. Monitoring was performed in January 2001 and January 2002. Continued annual monitoring was recommended. The latest annual sampling event occurred during February 2004 and the monitoring report is scheduled to be completed during the 3rd Quarter of FY 2004.				

TABLE 3-2

SITE DESCRIPTION CHART
PETROLEUM PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site Name	Site Location	Waste Type	Sources	Description of Activity
Day Tank 2	Facility 342-DT, south of intersection of 2nd street and "A" Avenue	JP-5 fuel	200,000-gallon earth mounded, interior-lined, asphalt-coated, steel tank.	Several USTs and ASTs were located adjacent to the Day Tank 2 facility. In October 1996, free petroleum product was observed in a piezometer located south of Day Tank 2. The release was believed to have been from the tank or associated piping. Approximately 29,000 gallons of free product were recovered. Day Tank 2 was taken out of operation in October 1996 and removed in 1997.
Initial Remedial Action: Day Tank 2 was decommissioned in 1996 and was removed in August 1997 Current Investigative Status: A CA plan was submitted in June 1997. The field investigation at Day Tank 2 that included installation of several monitoring wells, DPT groundwater screening points, soil borings, and soil sampling in March 1998. SAR was completed in July 1998. A source removal plan was submitted in October 1998, and the removal action was conducted in November 1998. Monitoring wells that were destroyed during the IRA were replaced and sampled in April 1999. A report describing the analytical results was completed in May 1999. Groundwater contamination will be addressed as part of OU 9, Sites 36/37 (see Table 3-1).				
Tank 46 (Includes 46R, 46D, 46SUL, and 46UL)	Building 46 across D Avenue from the Bachelor Officers Quarters	Regular and unleaded gasoline and diesel fuel	A total of eight tanks: - four 2,000-gallon tanks - two 10,000-gallon tanks - two 6,000-gallon tanks	Leaking USTs
Current Investigative Status: A RAP was submitted in March 1999. This RAP included the design of an AS/SVE System for the remediation of contaminated soil and groundwater. The RAP was revised to use a nutrient-enhanced biosparging system to remediate the source area and plume in June 2000. Installation of the remediation system was completed in January 2001, and the system is in operation. The RAC has reported contaminated groundwater exceeding GCTLs in a perimeter well. A supplemental assessment to delineate this contamination began during the 4th quarter of FY 2002, and was completed in January 2003. A letter report describing the results of the investigation was submitted on May 28, 2003. The report was approved by FDEP in July 2003. A RAP modification will be required to extend the current system to adequately remediate that part of the groundwater plume that is not currently being affected.				
Tank 9L1 and 9L2	Building 9 near the corner of B Avenue and 3rd Street	Gasoline	Two tanks, each 1,250 gallons	Leaking USTs
Current Investigative Status: A RAP was submitted in February 1999. This RAP included the design of an AS/SVE system for the remediation of contaminated soil and groundwater. The RAP was revised to use a nutrient-enhanced biosparging system to remediate the source area and plume in June 2000. Installation of the remediation system was completed in January 2001, and the system is currently in operation.				
312 O/W	North side of Building 312 (Corrosion Control Hangar)	Used oil group constituents	One 900-gallon oil/water separator tank	Leaking UST and/or piping
Current Investigative Status: A confirmatory sampling investigation of soil and groundwater was initiated in July 1998. A Confirmation Sampling Report (CSR) was submitted in 1999. The CSR indicated that the site had been impacted by used oil group constituents. A site assessment using DPT/mobile laboratory screening followed by installation of permanent monitoring wells was conducted. An SAR recommending a source removal and follow-up groundwater monitoring was submitted to FDEP during April 2002. FDEP issued a letter indicating that additional assessment was required. The additional assessment activities were completed in mid-July 2003. A Supplemental SAR was issued on September 5, 2003. Soil removal activities began in late September 2003. Other information: An Source Removal Report (SRR) was submitted by the RAC on December 16, 2000.				

TABLE 3-2

SITE DESCRIPTION CHART
PETROLEUM PROGRAM
NAS CECIL FIELD, JACKSONVILLE, FLORIDA

Site Name	Site Location	Waste Type	Sources	Description of Activity
824 O/W	South side of Building 824 (Avionics Shop)	Used oil group constituents	Oil/water separator (capacity unknown)	Leaking UST and/or piping
Current Investigative Status: A confirmatory sampling investigation was initiated in September 1998. A CSR was submitted in 1999. The CSR indicated that the site had been impacted by used oil group constituents. A site assessment using DPT/mobile laboratory screening, followed by the installation of permanent monitoring wells was conducted. The SAR, which recommended NFA for the site. At the August 2002 BCT meeting, FDEP indicated that the review was complete, and an NFA letter was issued by FDEP on August 29, 2002. Other information: An SRR was submitted by the RAC on December 16, 2000.				
North-South Apron Plume	East of Building 815 on eastern edge of north-south flightline apron	Unknown	Possible leakage from storm sewers or downward migration of an upgradient plume from an unknown site.	
Current Investigative Status: Earlier investigations indicated that volatile organic compounds (VOCs) were present in the groundwater at concentrations that exceeded FDEP GCTLs. Additional assessment activities conducted between November 1999 and November 2000 confirmed that VOCs were present in the groundwater at concentrations that exceeded GCTLs. A SAR was submitted recommending implementation of natural attenuation monitoring. FDEP issued a Natural Attenuation Monitoring Plan Approval Order in March 2001. The first three quarterly events indicate that groundwater VOC concentrations continue to exceed GCTLs, and the plume appears to be static. A 4th quarterly groundwater-monitoring event was conducted in February 2002. Based on results that indicated the plume is static and still exceeds GCTLs, a supplemental assessment was recommended. The additional assessment began during the 4th quarter of FY 2002. Monitoring was postponed during the supplemental assessment, which was completed in November 2002. A letter report describing the supplemental assessment work and recommending natural attenuation monitoring was submitted for FDEP review on January 14, 2003. An FDEP response, issued on May 2, 2003, requested additional assessment to delineate vertical extent of contamination. The installation and sampling of additional wells was completed in July 2003, and a second supplemental assessment letter report was submitted to FDEP in December 2003.				
BP Wells	Southeast of Building 880 on western edge of the north-south flightline apron			
Current Investigative Status: A groundwater investigation was conducted in 1999. The results from the 1999 investigation indicated that COCs in groundwater exceeded GCTLs in two monitoring wells. Additional assessment activities were conducted in February 2000. A SAR was submitted in August 2000. The SAR indicated that the groundwater had been impacted by VOCs. In response to the SAR, FDEP issued a Natural Attenuation Monitoring Plan Approval Order. The 1st semi-annual monitoring event was conducted in April 2001. The first semi-annual monitoring report noted increasing contaminant concentrations and recommended additional monitoring. The 2nd semi-annual monitoring event was conducted, and the subsequent report noted a continuing increase in contaminant concentrations and recommended preparation of a RAP. FDEP recently concurred with that recommendation. The Navy has given approval to conduct a treatability study at this site using iSOC (in-situ oxygen curtain) technology. The iSOC system was installed and began operation in October 2002 after a baseline groundwater sampling event was conducted. The 1st Quarter Monitoring Report was submitted in April, 2003. The 2nd Quarter Monitoring Report was submitted in August, 2003. The 3rd Quarter Monitoring Report was submitted in November, 2003. The 4th Quarter Monitoring and Annual Treatability Study Evaluation Report is currently in preparation, and the monitoring program has been put on hold.				

4.0 UPCOMING QUARTER SITE ACTIVITIES

4.1 COMMUNITY RELATIONS

The RAB meeting, originally scheduled for April 2004 has been cancelled for the upcoming quarter.

The following community relations activities will be conducted during the third quarter of FY 2004:

- Continue implementation of the Community Relations Plan
- Conduct public meetings as needed
- Prepare and distribute fact sheets as needed

4.2 FIELD WORK

The following field activities are planned for the third quarter of FY 2004:

IR Program

- Sites 1/2 surface water and sediment sampling - Annual (Year 7).
- Sites 1/2 sediment toxicity sampling for the 5-year review.
- Site 32 groundwater sampling for the 5-year review.
- Site 45 groundwater sampling - Annual (Year 3).
- Site 45 soil sampling for the 5-year review.
- Sites 36/37 natural attenuation groundwater sampling - 2nd semi-annual (Year 3).
- Site 59 groundwater and soil sampling – Phase I groundwater and DPT investigation.

Petroleum Program

- Tank 199 groundwater re-sampling - annual (Year 5).
- Day Tank 1 soil sampling – additional site soil investigation.
- Ocala Crash Site groundwater sampling – 2nd semi-annual (Year 4).

BRAC Program

None

4.3 DELIVERABLES

The following deliverables are scheduled for submittal during the third quarter of FY 2004:

IR Program

- Sites 1 and 2 final Annual Long-Term Monitoring Report - Year 6
- Sites 1 and 2 draft LUC RD
- Site 3 final Annual Groundwater Monitoring Report - Year 5
- Site 3 draft LUC RD
- Site 5 final Annual Groundwater Monitoring Report - Year 5
- Site 5 draft LUC RD
- Site 8 draft Annual Groundwater Monitoring Report - Year 6
- Site 8 draft LUC RD
- Site 15 draft revised FS Report
- Site 16 final Annual Groundwater Monitoring Report - Year 5
- Site 16 draft LUC RD
- Site 17 final Annual Groundwater Monitoring Report - Year 6
- Site 17 draft LUC RD
- Site 21 final Annual Groundwater Monitoring Report - Year 1
- Site 21 draft Annual Groundwater Monitoring Report – Year 2
- Site 25 final Annual Groundwater Monitoring Report - Year 1
- Site 25 draft Annual Groundwater Monitoring Report – Year 2
- Site 25 draft OPS Demonstration Report
- Site 36 and 37 draft Annual Groundwater Monitoring Report - Year 3
- Site 36 and 37 final LUC RD
- Site 36 and 37 draft OPS Demonstration Report
- Site 45 final Annual Groundwater Monitoring Report - Year 2
- Site 45 final LUC RD
- Site 45 draft Interim Remedial Action Report
- Site 45 draft OPS Demonstration Report
- Site 49 final PP
- Site 49 draft ROD
- Site 57 and 58 final ROD
- Site 57 draft Annual Groundwater Monitoring Report – Year 1
- Site 58 draft Annual Groundwater Monitoring Report – Year 2

Petroleum Program

- BP Wells Site - final Groundwater Operations and Maintenance (O&M) Report - 4th Quarter (Year 1)
- Ocala Crash Site draft Groundwater Monitoring Report - 2nd Semi-Annual (Year 4)
- Tank 199 final Groundwater Monitoring Report - Annual (Year 5)
- SFF draft RAP Addendum
- SFF final RAP Addendum
- Tank 502 draft Groundwater Monitoring Report - 2nd Semi-Annual (Year 4)
- Tank 502 final Groundwater Monitoring Report - 2nd Semi-Annual (Year 4)
- Tank 502 draft Groundwater Monitoring Report - 1st Semi-Annual (Year 5)
- 103rd Street Pipeline draft SARA
- 103rd Street Pipeline final SARA
- Site 37, Hangar 14 final SAR

BRAC Program

- Building 635 Former Railroad Bed Site - final SAR
- Tank 285 NFF Area – final Revised SAR

4.4 MEETINGS

The following meetings are tentatively scheduled for the third quarter of FY 2004:

- Partnering Meeting May 18 and 19, 2004