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SITE MANAGEMENT PLAN QUARTERLY PROGRESS REPORT FOR SECOND QUARTER
FISCAL YEAR 1998 NAS CECIL FIELD FL
3/1/1998
ABB ENVIRONMENTAL SERVICES INC

QUARTERLY PROGRESS REPORT

Naval Air Station Cecil Field Jacksonville, Florida

**2nd Quarter, Fiscal Year 1998
January 1998 - March 1998**

1.0 INTRODUCTION

1.1 BACKGROUND

The U.S. Navy, the Environmental Protection Agency (USEPA), and the State of Florida via the Florida Department of Environmental Protection (FDEP) signed the Federal Facilities Agreement (FFA) in October 1990. The purpose of the FFA was to provide the legal mechanism for the Navy to investigate and undertake appropriate remedial action for past hazardous waste releases at NAS Cecil Field. As part of the FFA, the Navy prepares and submits to the other FFA parties Quarterly Progress Reports (QPR).

1.2 SCOPE

In accordance with FFA, Part XII, Reporting, the QPR identifies and briefly describes actions the Navy has taken to implement FFA requirements in the previous quarter and those actions scheduled in 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 Workplans. 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 FFA ACTIVITIES

2.1 SITE MANAGEMENT PLAN

The Navy provided FFA parties with a fiscal year (FY) 1998 SMP (final) on December 15, 1997; the SMP included schedules to accomplish Installation Restoration (IR) and Petroleum (underground storage tank [UST] and aboveground storage tank [AST]) program activities at NAS Cecil Field. SMP revisions will be recommended for approval as needed. These may include new information from field investigations, issues concerning BRAC activities, and remediation initiatives under consideration. The first quarterly progress report presented revisions to the SMP schedule that were approved by the NAS Cecil Field partnering team.

2.2 ADMINISTRATION

The Navy has continued administering the IR, the UST, and the BRAC programs and 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 and Feasibility Study (RI/FS) program through execution of the Department of Defense IR program.

During the second quarter of FY 98, the following information was provided to the NAS Cecil Field partnering team and the regulatory agencies.

Petroleum Program

- Data Package, Underground Storage Tank sites
- Data Package, Miscellaneous Tank Sites
- Analytical Data, Buildings 68 and G82
- Confirmatory Sampling Reports
- Truck Stand, 3rd quarter monitoring report

Installation Restoration Program

- General Information Report Updates
- Final Record of Decision (ROD), Site 7
- Draft Technical Memorandum, PSC 12
- Draft and Final ROD, Site 8
- 3rd Quarter Sampling report, OU 1
- Draft and Final Proposed Plan, Site 11 (OU 6)
- Draft Pilot-Scale Treatability Study Workplan, Site 16
- Draft Technical Memorandum for No Further Action, PSC 18
- Final Feasibility Study report, OU 5 (Sites 14 and 15)
- Final Technical Memorandum for No Further Action, PSC 4
- Draft Proposed Plan, Site 14
- Natural Attenuation Sampling report, Round I
- Final Feasibility Study addendum, OU 3
- Progress Report, 1st Quarter
- Final Proposed Plan, Site 8
- Final Feasibility Study report, OU 6 (Site 11)
- Draft Technical Memorandum, PSC 19
- Draft Groundwater Design, Site 5

BRAC Program

- Final EBS for the 26KV system.
- Draft EBS YWWC
- Final Draft EBS, Building 900
- Final EBS, Building 68A

Currently the following deliverables are behind schedule.

- Final Proposed Plan, Site 14
- Draft ROD, Site 14
- Design, Site 16
- Draft Proposed Plan, Site 15
- Record of Decision, OUs 6 and 8 .

A letter presenting the reason for the delays along with a projected schedule was submitted on April 28, 1998. The SMP schedule is currently being revised to include the status of all BRAC sites under investigation. Revisions to the SMP schedule identified above will be completed and submitted under separate cover.

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:

- Onboard review of major deliverables.
- Evaluation and modification of procedures to accelerate and streamline the RI/FS process.
- Identification and implementation of site screening methods designed to accelerate the investigative process.
- Evaluation of remedial alternatives to incorporate data needs into the initial remedial investigation process.
- Coordination of assessment and cleanup activities with the Response Action Contractor (RAC), Bechtel Environmental, Inc.
- Develop decision flowcharts to assist the partnering team in decision making process.
- Use innovative methods, such as geostatistics, to design and execute field programs.
- The NAS Cecil Field partnering team has combined the PSC technical memoranda and the decision documents into one report entitled Technical Memorandum for No Further Action.
- Preparation of the Decision Process Document.

3.0 ACTIVITIES PERFORMED THIS QUARTER

3.1 COMMUNITY RELATIONS

- Conducted Restoration Advisory Board (RAB) meetings in January , February, and March 1998. The January RAB meeting was held on January 21, 1998, and the topics of discussion included OU 3 FS and Site 14 Proposed Plan, Site 17 Update, Natural Attenuation training, and BRAC Grey sites update. The February RAB meeting was held on February 18, 1998, and the topics of discussion included Site 8 Proposed Plan, Reuse update, sites update, Day Tank 2, and the NAS Cecil field airport Master Plan. The topics for the March 16, 1998, RAB meeting included OU 6 Proposed Plan, UST program overview, Sites update, and Reuse update.

3.2 FIELD WORK

- Initiated additional soil borings for delineating soil contamination at sites identified by the NAS Cecil Field partnering team.
- During review of the DPT chemical data, the regulatory agencies identified data gaps prior to concurrence with groundwater plume delineation data. Additional DPT points were installed during the week of March 16, 1998.
- Continued piezometer and the monitoring well installation program at the various UST sites. Several delays were encountered due to inclement weather and equipment breakdown.
- Completed installation of monitoring wells and initiated groundwater sampling in the YWWA. Samples are being collected for radionuclide analytical parameters.
- Completed delineation sampling for twelve BRAC sites.
- Completed installation of monitoring wells at the Hangars 13 and 14. Monitoring wells were developed during the week of March 30, 1998. Groundwater sampling will be initiated on April 6, 1998.
- Sampled monitoring wells for Natural Attenuation Monitoring parameters
- Continued field investigations scoped under petroleum program
- Conducted quarterly groundwater, sediment, and surface water sampling at OU 1.
- Sampled monitoring wells for Natural Attenuation Monitoring parameters
- Completed the fourth and final round of natural attenuation groundwater sampling at Site 17.
- Recovered free product from existing monitoring wells at the Day Tank 1, South Fuel Farm, and Day Tank 2 sites in January, February, and March 1998.
- Initiated collection of soil samples for delineating soil contamination for soil removal actions at the Tank 199 site.
- A total of six soil samples were collected for kerosene group analysis at the Day Tank 2 site.
- Completed soil borings (to delineate soil contamination) and installed 2 piezometers to delineate the extent of free product at the Day Tank 2 site.
- Collected groundwater samples for the fourth and final round of groundwater monitoring at the Truck Stand site.
- Resampled monitoring well 20D at the Day Tank 2 site.
- Completed locational survey for the Day Tank 2 site.
- Completed installation of the remediation system at the South Fuel Farm site.
- Continued operation of the bioslurper at the North Fuel Farm site.

3.3 MEETINGS

- | | |
|--------------------------------------|---------------------|
| • Partnering Team Teleconference | 30 March 1998 |
| • BCT Meeting, Tallahassee, FL | 18-20 March 1998 |
| • RAB Meeting, NAS Cecil Field | 17 March 1998 |
| • Partnering Team Teleconference | 04 March 1998 |
| • BCT Meeting, Tallahassee, FL | 18-20 February 1998 |
| • RAB Meeting, NAS Cecil Field | 17 February 1998 |
| • Partnering Team Teleconference | 09 February 1998 |
| • Petroleum Meeting, Tallahassee, FL | 22-23 January 1998 |
| • BCT Meeting, NAS Cecil Field | 13-15 January 1998 |
| • RAB Meeting, NAS Cecil Field | 13 January 1998 |
| • RAB Steering Committee Meeting | 13 January 1998 |

4.0 UPCOMING QUARTER SITE ACTIVITIES

4.1 MEETINGS

- RPM and Partnering meetings tentatively planned for each month.
- Monthly RAB meetings.
- Document review meetings.
- Field program scoping meetings.
- Public meetings and/or availability sessions.
- Data evaluation meetings.
- Tier I/II partnering meeting.

4.2 DELIVERABLES

- Final groundwater design, Site 5 (OU 2)
- Preliminary Draft Decision Process Document (DPD)
- Draft Remedial Design, Site 7
- Final Pilot Study Workplan, Site 16 (OU 7)
- Annual Sampling Report, Site 17 (OU 2)
- Natural Attenuation Sampling Report, 2nd Round
- Final Proposed Plan, Site 14 (OU 5)
- Draft Technical Memorandum, PSC 6
- Final Technical Memorandum for No Further Action, PSC 9
- Final Technical Memorandum for No Further Action, PSC 19
- Annual Monitoring Report, Truck Stand site
- Confirmatory Sampling Reports, Petroleum Program
- Sampling Analysis Outlines, BRAC (as developed)
- Sampling Analysis Reports (SARs) for BRAC gray areas
- Radiological Survey workplan
- Quarterly Sampling Report for Ocala Crash site, 1st quarter

4.3 FIELD WORK

- Continue delineation sampling efforts for the dig-n-haul sites.
- Collect groundwater samples from the Hangars 13 and 14 monitoring wells.
- Continue field programs at BRAC grey areas
- Continue field investigations scoped under petroleum program
- Conduct quarterly groundwater, sediment, and surface water sampling at OU 1.
- Recover free product from existing monitoring wells at the Day Tank 1, South Fuel Farm, and Day Tank 2 sites.
- Complete groundwater sampling in the YWWA.
- Complete collection of soil samples for delineating soil contamination for soil removal actions at the Tank 199 site.
- Complete soil borings (to delineate soil contamination) and install piezometers to delineate the extent of free product at the Day Tank 2 site.
- Collect groundwater samples for the 1st round of monitoring at the Tank 199 site.
- Complete locational survey for the UST sites.
- Complete soil removal actions at the Jet Engine Test Cell, North Fuel Farm, and Tank 199 sites.
- Collect 1st quarter groundwater samples at the Ocala Crash site for Natural Attenuation monitoring.

4.4 COMMUNITY RELATIONS

- Continue implementation of Community Relations Plan
- Support NAS Cecil Field RAB
- Public Meetings (if necessary)
- Prepare and distribute Fact Sheets on an as-needed basis

5.0 ATTACHMENTS

5.1 SITE DESCRIPTION CHART

The site description chart presenting a summary of the current investigative status for the IR sites is presented in Table 1. Sites 1 - 12 and 14 -19 are currently being investigated under the IR program and Site 13 is being investigated under the petroleum program.

Table 1

**Site Description Chart
Installation Restoration Program
NAS Cecil Field, Jacksonville, Florida**

Revised: April 15, 1998

Site No.	Operable Unit	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).
	<p>Current Investigative Status: Final Remedial Investigation (RI), Baseline Risk Assessment (BRA), and Feasibility Study (FS) reports submitted December 1994. Data indicate a potential risk to benthic macroinvertebrates in drainage ditch at Site 2. Final Record of Decision (ROD) submitted September 26, 1995. The selected remedial alternative is site closure, a source-control alternative. The source control alternative includes landfill gas, radiological, and unexploded ordnance surveys, surface debris removal, groundwater monitoring, post-closure care, and a 5-year review. Final design submitted in April 1996. Remedial action was initiated by Brown and Root Environmental in May 1997. Landfill gas survey and surface water, groundwater, and sediment sampling were completed in May/June 1997. The third quarter groundwater sampling report was submitted in March 1998.</p>					
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).
	<p>Current Investigative Status: Final RI, BRA, and FS reports submitted December 1994. Data indicate a potential risk to benthic macroinvertebrates in drainage ditch at Site 2. Final Record of Decision (ROD) submitted in September 1995. Remedial alternatives include site closure (source-control) and biomonitoring in the wetlands area (risk-reduction). Final design submitted in April 1996. Remedial action was initiated by Brown and Root Environmental in May 1997. Landfill gas survey and surface water, groundwater, and sediment sampling were completed in May/June 1997. The third quarter groundwater sampling report was submitted in March 1998.</p>					
3	OU 8	Oil/Sludge Disposal Pit (50-100 ft in dia. 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. Extent of contamination is much larger than originally anticipated.
	<p>Current Investigative Status: Remedial investigation complete. Draft RI and BRA submitted in April 1995; Draft FS submitted in May 1995. Final RI report submitted February 1996. Agencies reviewing Navy responses to their comments on the BRA and FS reports. Agencies have recommended additional sample collection at Rowell Creek and resampling some of the monitoring wells for chemical and biological parameter analysis. Supplemental sampling was completed in June 1997. A total of 24 wells were sampled for VOCs and selected biological parameters to assess natural attenuation potential. The final BRA and FS reports were submitted in September 1997 and October 1997, respectively. The final proposed plan was submitted in March 1998.</p>					
4	--	Grease Pits (9 acres)	1950s-1983	Waste oils, mess greases	Installation dining facilities and facility oil/water separators	Multiple shallow pits excavated to dispose of liquid wastes (grease from dining facilities and waste oils from oil/water separators) and then covered with fill. Extent of contamination maybe larger than anticipated (22 acres).
	<p>Current Investigative Status: Field Investigation Workplan submitted 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 was submitted in March 1998.</p>					

Table 1 (continued)

Site No.	Operable Unit	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
5	OU 2	Oil Disposal Area Northwest (100 ft in dia.)	1950s	Oil, fuel	Fuel farms	Shallow, unlined pit where liquid wastes were disposed (petroleum products present)
<p>Current Investigative Status: Final RI and RA submitted in May 1995; Final FS submitted in July 1995. Final ROD submitted in September 1995. Risk reduction remedial alternatives include excavation and treatment of sediment in drainage ditch, on-site treatment of contaminated groundwater, a restriction of all use of groundwater from the surficial aquifer. Due to discontinuation of the interim action, the ROD may need to be amended. Awaiting guidance from the regulatory agencies and the partnering team.</p> <p>The pilot study workplan, for evaluating feasibility of air sparging and <i>insitu</i> air stripping to treat groundwater, was submitted on April 15, 1997. The air sparging pilot study was completed during the week of May 26, 1997. The final pilot study report was submitted in August 1997. The draft Site 5 sediment remedial design was submitted on June 3, 1997. Submitted the draft remedial design for groundwater in January 1998.</p> <p>Interim Action: IROD signed in September 1994. Interim remedial action (IRA) initiated in March 1995 for source removal. IRA includes removal and disposal of free petroleum product and removal and treatment of contaminated soil using bioremediation. Per partnering team recommendations, the IRA (bioremediation) activities were discontinued in June 1996. The partnering team is investigating the need for amending the IROD.</p>						
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 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
<p>Current Investigative Status: Field Investigation Plan submitted March 1995. Field screening activities (geophysical surveys, monitoring well installation, surface and subsurface soil sampling, surface water and sediment sampling) were completed in June 1997. Groundwater sampling was completed in August 1997. Continued preparation of the draft Technical Memorandum presenting investigation findings.</p>						
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
<p>Current Investigative Status: RI field investigation as defined in workplan completed in summer 1995. RI report submitted in September 1996. Per agreements with the regulatory agencies the risk assessment was included as a chapter in the RI report. Based on data gaps identified by the agencies, additional surface soil samples were collected in March 1997. The RI report will be finalized upon acceptance of this data. The draft FS report was submitted in December 1996. USEPA review comments for the draft FS report were received in March 1997. Response to these comments were submitted in April 1997. The RI and FS reports were finalized in August 1997. The proposed plan was finalized in January 1998 and the final ROD was submitted in March 1998.</p>						
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 were used as targets for practice.
<p>Current Investigative Status: RI field investigation as defined in workplan completed in summer 1995. RI report submitted in September 1996. Per agreements with the regulatory agencies the risk assessment was included as a chapter in the RI report. USEPA review comments for the draft FS report were received in March 1997. Response to these comments were submitted in April 1997. Approximately 22 monitoring wells were sampled for natural attenuation parameters in June 1997. The final RI and FS reports were submitted in August 1997. The proposed plan was finalized in January 1998 and the final ROD was submitted in March 1998. Initiated preparation of the draft remedial design workplan.</p>						

Table 1 (continued)

Site No.	Operable Unit	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; pits were used until full and then a new pit was excavated
	<p>Current Investigative Status: Field Investigation Workplan submitted March 1995. Field screening activities, except for groundwater sampling, were completed in June 1997 (includes 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.</p>					
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
	<p>Current Investigative Status: Final RI/FS workplan submitted in November 1994. RI field investigation as defined in workplan completed in summer 1995. Draft RI/RA report submitted on June 7, 1996 for regulatory review. The final RI report was submitted in November 1996. The RI report presented a no further action recommendation with a proposal to prepare an NFA ROD. The draft proposed plan was submitted on June 24, 1997. The final ROD was submitted in August 1997.</p>					
11	OU 6	Golf Course Pesticide Disposal Area	1970s-1978	Pesticides, fungicides, and herbicide containers, vehicles, metal debris	Golf course maintenance area	Reported, between 200 and 400 empty 5-gallon cans containing pesticides were buried at the site; a limited number of full containers of pesticides were buried in 1978.
	<p>Current Investigative Status: Final RI/FS workplan submitted to regulatory agencies November 1994. Confirmatory field program completed in June 1996. The draft RI report was submitted on December 30, 1996. USEPA review comments for the Draft RI were received on March 6, 1997. Response to comments were submitted in April 1997. To address FDEP concerns about Arsenic contamination in subsurface soils, one (1) shallow monitoring well was installed in the vicinity of the highest arsenic detection. The well was installed and sampled in June 1997. The RI report is being finalized and will be submitted during the next reporting period. Elevated phenol detection was also resampled for subsurface soil. The final RI report was submitted in August 1997 and the final FS was submitted in January 1998. The draft and final proposed plan were submitted in March 1998.</p>					
	<p>Interim Actions: Final IROD submitted to the regulatory agencies in August 1994. IRA completed in January 1996. Submitted the remedial action completion report on October 18, 1996, and revision to the remedial action report was submitted on May 16, 1997.</p>					
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 bls, some rubble is above ground.
	<p>Current Investigative Status: Field Investigation Workplan submitted March 1995. Field screening activities (geophysical survey, hydrological assessment, monitoring well installation, surface and subsurface soil, groundwater sampling, surface water and sediment sampling) were completed in August 1997. The draft technical memorandum was submitted in March 1998.</p>					
13	--	Day Tank 1-Fuel Spill (1.5 acres)	1981	JP-5 fuel	Day tank	Location of fuel spill in 1981; approximately 500,000 gallon of JP-5 fuel was spilled; approximately 250,000 gallons was recovered.
	<p>Current Investigative Status: Transferred to the petroleum program.</p>					

Table 1 (continued)

Site No.	Operable Unit	Site Name/Size	Period of Operation	Waste Type	Sources	Description of Activity
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
						<p>Current Investigative Status: Final RI/FS workplan submitted to regulatory agencies in November 1994. RI field investigation as defined in workplan completed in summer 1995. Preliminary data presented to partnering team in June 1996. The draft RI report was submitted on November 27, 1996. Received USEPA review comments in March 1997. Response to comments were submitted in April 1997. The draft FS report was submitted in November 1997 and the final RI report was submitted in October 1997. The final FS report and the draft Proposed Plan were submitted in March 1998. Initiated preparation of the draft ROD.</p>
15	OU 5	Blue 10 Ordnance Disposal Area (10 acres)	1960s-1977	Small arms, parachute/distress flares, Mark IV signal cartridges, rocket ignitors, 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.
						<p>Current Investigative Status: Final RI/FS workplan submitted to regulatory agencies in November 1994. RI field investigation as defined in workplan completed in summer 1995. Preliminary data presented to partnering team in June 1996. The draft RI report was submitted on November 27, 1996. Received USEPA review comments in March 1997. Response to comments were submitted in April 1997. Continued preparation of the draft FS report. Supplemental samples to address data gaps identified by the partnering team were collected in May 1997. The final RI report was submitted in October 1997 and the draft FS report was submitted in November 1997. The final FS was submitted in March 1998.</p>
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; RCRA holding tank for wastewater is also located at Site 16; glass bead separator and associated piping also present.
						<p>Current Investigative Status: Final RI submitted July 1995; FS submitted August 1995. Final BRA submitted in January 1996. Proposed plan submitted on March 19, 1996. A public meeting was held on March 21, 1996. The final ROD was submitted in August 1996. A conceptual design package was submitted on December 16, 1996. A draft pilot-scale Treatability Study workplan for Storm Sewer System was submitted in March 1998. Design effort for the source area remediation is ongoing.</p> <p>Interim Remedial Action: Focused Feasibility Study and Remedial Design completed. Final responsiveness summary and IROD 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 submitted in September 1994.</p>
17	OU 2	Oil/Sludge Disposal Pit Southwest (2 acres)	Late 1960s - early 1970s	Waste fuels/oils	Fuel farm	Unlined shallow disposal pit
						<p>Current Investigative Status: Final RI and RA submitted in May 1995; Final FS submitted in July 1995. Final ROD submitted September 1995. Risk reduction remedial alternative is intrinsic bioremediation with an aggressive monitoring program. Draft remedial design workplan was submitted in July 1996 and review comments were received in September 1996. The final remedial design workplan was submitted in January 1997. The first round samples for monitoring natural attenuation were collected in May 1997. Completed the first, second, third, and fourth quarter sampling. Initiated preparation of the annual report for the first year of monitoring at the site.</p> <p>Interim Remedial Action: IROD signed in September 1994. IRA initiated in February 1995 for source removal, which is contaminated soil. IRA included removal and on-site treatment of contaminated soil. A remedial action completion report was submitted in September 1996.</p>

Table 1 (continued)

18	--	Ammunition Disposal Area (0.1 acre)	1950s	Ammunition crates, miscellaneous ordnance	Magazine area	Waste material from a nearby magazine area were trucked in and dumped over the site during the 1940s until 1950. Reportedly, all munitions were removed. As of 7/93, live munitions were still present at site according to EOD personnel.
<p>Current Investigative Status: Field Investigation Workplan submitted 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 No Further Action was submitted in March 1998.</p>						
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
<p>Current Investigative Status: Field Investigation Workplan submitted 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. Submitted the draft Technical Memorandum for No Further Action was submitted in January 1998. The partnering team has recommended that the report should be finalized after completion of the test pitting activities at the site.</p>						
<p> </p>						

Table 2
Site Description Chart
Petroleum Program
NAS Cecil Field, Jacksonville, Florida

15 April 1998

Site Name	Site Location	Waste Type	Sources	Description of Activity
Jet Engine Test Cell	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 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.
<p>Current Investigative Status: Preliminary contamination assessment initiated in Dec. 1990 by ABB-ES. USCOE conducted a soil investigation in Jan. 1991. The contamination assessment was completed in 1993 and a Contamination Assessment Report (CAR) addendum 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 submitted on November 22, 1996 was approved by 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 will be submitted in July 1997. Remedial action for soil excavation was completed in September 1997.</p> <p>Other Information: Part of Building 339 was demolished and rebuilt in June 1991. About one hundred tons (137.6) of soils 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.</p>				
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 (STC) and emergency response actions were conducted at these sites after the Feb. 10, 1991 spill. Heavy equipment and vacuum trucks were used to recover the fuel from STC.
<p>Current Investigative Status: This site covers a total of seven 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 contamination assessment was conducted in 1991 and 1994. The field investigation included soil borings, surface water and sediment sampling, and monitoring well installation. A Contamination Assessment Report (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 partnering team 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 CAR addendum recommending no further action (NFA) at all Dam sites, except Possum Dam, was submitted on May 19, 1997. A recommendation to resample Possum Dam site in December 1997 was approved.</p>				
JP-5 Spill Area	Adjacent to Tank 76-E, northeast corner of NFF	JP-5 Jet Fuel	Feb 10, 1991 JP-5 fuel spill	On Feb. 10, 1991 the 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 STC.
<p>Current Investigative Status: Preliminary CA conducted in 1991. 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 for the CAR, further investigations were conducted in 1995. A CARA was 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.</p> <p>Other Information: From September 1995 through January 1996, an initial remedial action was conducted by BEI. The IRA included removal of about 2,750 cubic yards of contaminated soil (>1000 ppm) from the site.</p>				
South Fuel Farm	Facility 43, at the intersection of 2nd street and Weed Street	JP-5 Jet Fuel	Several tanks that were removed in the 1990s.	Location of several ASTs, USTs and EMTs. All ATS were removed in 1995 and all USTs and EMTs (except Tank 342-DT) were removed in July 1994.
<p>Current Investigative Status: Contamination assessment completed in December 1991 and CAR submitted in July 1992. Upon review of CAR, FDEP requested additional investigation at this site. Supplemental investigation completed in July 1995 and CARA 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 was installed in February 1998 and system start up activities were completed in March 1998.</p>				

Table 2 (continued)

Site Name	Site Location	Waste Type	Sources	Description of Activity
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, an asphalt and concrete parking area, and a retention pond.	Probable spills and soil staining
<p>Current Investigative Status: Preliminary CA conducted in 1990. CA completed in 1991 and CAR submitted in May 1992. Subsequently, CARA 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 II 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 first, second, third, and fourth quarter sampling have been completed. A letter report presenting the sampling results for the first, second, and third quarter sampling have been submitted. Initiated preparation of the annual monitoring report.</p> <p>Other Information: IRA to remove soils saturated with free product completed in May 1996. A total of about 1000 cubic yards of soil were excavated. Remedial Action report submitted in June 1996.</p>				
Sal Taylor Creek Bank Sites	Along Sal Taylor Creek	JP-5 Jet Fuel	February 1991 JP-5 fuel spill.	Activities conducted after the fuel spill.
<p>Current Investigative Status: Nine locations along the banks of Sal Taylor Creek investigated to determine extent of soil and groundwater contamination due to the 1991 fuel spill. Results of the 1992-93 investigation presented in the July 1994 CAR. Per FDEP recommendations additional investigations completed in September 1995. CARA submitted in March 1996 was approved by FDEP in April 1996. The CARA recommended natural biodegradation for the remedial action these sites. Temporary wells were installed in December 1996 at the two locations recommended by the FDEP. Groundwater samples were collected from these wells in January 1997. A CAR addendum 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.</p>				
Day Tank 1	Northeast of Jet Road			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.
<p>Current Investigative Status: Geraghty and Miller conducted preliminary CA in 1981. CA initiated by ABB-ES in December 1990. The contamination assessment was completed in 1993 and a Contamination Assessment Report (CAR) addendum was submitted to FDEP in December 1993. Upon approval of the CAR, a Remedial Action Plan (RAP) was submitted to FDEP on 24 May 1994. The RAP was not approved by FDEP. Consequently, an Alternate Procedures Request (APR) was submitted to FDEP on 4 August 1995 to recover free product. The APR was approved on 14 September 1995. Per FDEP recommendation, five additional wells were installed and sampled in September 1995. The remedial action plan 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 remedial action. The letter memorandum will be submitted in July 1997.</p>				
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 1,800 gallon spill on November 28, 1993
<p>Current Investigative Status: CA completed in 1991. CAR submitted in June 1992. Supplemental investigation completed in 1993/94. Conducted field work in April 1994 to investigate the 1,800 gallon spill. In July 1994, FDEP recommended additional investigation that was completed in 1995. CARA submitted in April 1996. Subsequently the CARA was approved by FDEP. Supplemental assessment recommended by the partnering team was completed in November 1996. The RAP and the revised CAR addendum were submitted in January 1997. FDEP comments for the NFF RAP were reviewed at the June 1997 partnering team meeting. Supplemental soil samples were collected in September 1997 and the results were presented in a RAP letter memorandum submitted in November 1997.</p> <p>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.</p>				

Table 2 (continued)

Site Name	Site Location	Waste Type	Sources	Description of Activity
Tank 199	Building 199, Southeast corner of C Avenue and 6th Street	Heating oil	2,000 gallon underground heating oil tank.	Leaking UST
<p>Current Investigative Status: Prepared a contamination assessment plan in August 1996. Initiated CA in September 1996. The field program was completed in December 1996. The field program included soils 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 and submitted in November 1997. Soil samples for Kerosene Analytical Group analysis were collected in March 1998.</p>				
Day Tank 2	Facility 342-DT, at the intersection of 2nd street and weed street	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 is scheduled to be removed in 1997.
<p>Current Investigative Status: A contamination assessment plan was submitted in June 1997. Completed 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. Upon receipt of analytical data, a site assessment report will be prepared.</p> <p>Initial Remedial Action: The Day Tank 2 was decommissioned and removed in August 1997.</p>				