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FINAL BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORTS STUDY AREA 35 NTC ORLANDO FL

12/1/2000

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BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT

00065

for

STUDY AREA 35

Naval Training Center
Orlando, Florida

Southern Division
Naval Facilities Engineering Command
Contract Number N62467-89-D-0317/107
Contract Task Order 0024

DECEMBER 2000

TETRA TECH NUS, INC.
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1200-A231

December 15, 2000

Ms. Barbara Nwokike (Code 1873) (IRP RPM)
P.O. Box 190010
2155 Eagle Drive
North Charleston, SC 29419-9010

Reference: CLEAN Contract No. N62467-94-D-0888
Contract Task Order No. 0024

Subject: Environmental Site Screening Report for Study Area 35
Naval Training Center, Orlando, Florida

Dear Ms. Nwokike:

Enclosed is the final Environmental Site Screening Report for Study Area 35. This revision of the report includes changes resulting from review comments by the Orlando Partnering Team. I will forward the signature page to Wayne Hansel, Nancy Rodriquez, and David Grabka, then distribute the signed page. If you have any questions, please contact me at (865) 220-4730.

Sincerely,

Steven B. McCoy, P.E.
Task Order Manager

SBM:ckf

Enclosures

c: Mr. Rick Allen, Harding Lawson Associates
Mr. Michael J. Campbell, Tetra Tech NUS
Mr. David Grabka, FDEP
Mr. Wayne Hansel, SOUTHDIV
Mr. Mark Perry/File, Tetra Tech NUS (unbound)
Ms. Nancy Rodriquez, USEPA Region 4
Mr. Steve Tsangaris, CH2M Hill
Ms. Vickie Stitt, Tetra Tech NUS
Ms. Jacque Van Audenhove, Tetra Tech NUS
Ms. Debbie Wroblewski, Tetra Tech NUS (cover letter only)
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0201-A008

February 6, 2001

Commander, Southern Division
Naval Facilities Engineering Command
Attn: Ms. Barbara Nwokike, Code 1873
P.O. Box 190010
2155 Eagle Drive
North Charleston, SC 29419-9010

Reference: CLEAN Contract No. N62467-94-D-0888
Contract Task Order No. 0024

Subject: Environmental Site Screening Report for Study Area 35
Naval Training Center, Orlando, Florida

Dear Ms. Nwokike:

Enclosed is a copy of the signed signature page for the final Environmental Site Screening Report for Study Area 35. Please insert the signed page into your copy of the report. If you have any questions, please contact me at (865) 220-4730.

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Task Order Manager

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File/Edb

Rev. 1
12/15/00

BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT FOR STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA

COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:

Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

Submitted by:

Tetra Tech NUS, Inc.
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CONTRACT NO. N62467-89-D-0317/107
CONTRACT TASK ORDER 0024

December 2000

PREPARED UNDER THE SUPERVISION OF:

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TETRA TECH NUS, INC.
OAK RIDGE, TENNESSEE

APPROVED FOR SUBMITTAL BY:

DEBBIE WROBLEWSKI
PROGRAM MANAGER
TETRA TECH NUS, INC.
PITTSBURGH, PENNSYLVANIA

P.G. CERTIFICATION

I hereby certify that this Base Realignment and Closure Environmental Site Screening Report for Study Area 35 was prepared under my direct supervision in accordance with acceptable standards of geological practice.

Michael J. Campbell 12/15/00
Michael J. Campbell, P.G. / Date
License No. PG-0001981

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ACRONYMS

ABB-ES	ABB Environmental Services, Inc.
bgs	below ground surface
BGSV	background screening value
CLP	Contract Laboratory Program
DET	Environmental Detachment Charleston
DQO	data quality objective
EEG	Environmental Enterprise Group
FDEP	Florida Department of Environmental Protection
GCTL	Groundwater Cleanup Target Level
HLA	Harding Lawson Associates
IRA	Interim Remedial Action
mg/kg	milligrams per kilogram
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
MCL	Maximum Contaminant Level
NTC	Naval Training Center
NTU	nephelometric turbidity unit
OPT	Orlando Partnering Team
PCB	polychlorinated biphenyl
RBC	Risk-Based Concentration
RGO	remedial goal option
SA	Study Area
SCTL	Soil Cleanup Target Level
SDG	sample delivery group
TAL	Target Analyte List
TCL	Target Compound List
TRPH	total recoverable petroleum hydrocarbon
TSS	total suspended solids
TtNUS	Tetra Tech NUS, Inc.
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

1.0 INTRODUCTION

1.1 INVESTIGATION AND REMEDIATION SUMMARY

This report contains information gathered during site screening activities conducted at Study Area (SA) 35. Initial site screening investigations began on July 22, 1997, and were completed November 20, 1997. Proposed field activities were presented in the *Site Screening Plan, Groups I through IV Study Areas and Miscellaneous Additional Sites* (ABB Environmental Services, Inc. [ABB-ES], 1995a). An additional groundwater investigation, which focused on the vehicle hydraulic lift pits inside Building 2078, was conducted between March 4 and March 6, 1998. The site screening investigation resulted in the recommendation and implementation of a limited soil removal at the site. The Environmental Detachment Charleston (DET) performed Interim Remedial Action (IRA) excavations at the Study Area in April 1999 to remediate surface soils (DET, 1999) at excavation areas A through E and G through I. Surface soil confirmation sampling indicated that remediation was not complete at area A. Additional confirmation sampling proposed in the *Work Plan for Soil Sampling* (Tetra Tech NUS, Inc. [TtNUS], 2000) was performed near excavation area A on April 17, 2000, and June 21, 2000, which resulted in a further limited excavation on the northern edge of area A in August 2000.

1.2 SITE BACKGROUND AND CONDITIONS

SA 35 is part of the Main Base, Naval Training Center (NTC), Orlando (Figure 1). The study area occupies the southern part of the block formed by Langley and Iwo Jima Streets and Mitscher and Leahy Avenues. Most of the site is a large paved parking area fringed with grass swales and lawn (Figure 2). Two buildings (2078 and 2079) are included in the study area. Building 2078 is a former aircraft hangar used from 1968 to 1998 for vehicle maintenance. Eight hydraulic lifts were used for vehicle repair, seven inside the building and one outside the building. The outside lift and six of the inside lifts were constructed in long narrow pits approximately 8 feet deep. The seventh lift, inside Building 2078, was not constructed in a pit and was abandoned before the site screening investigation. Building 2079 was used to store tires, batteries, and hazardous materials. Additional details of historical site activities can be found in the Site Screening Plan (ABB-ES, 1995a). Both buildings were most recently used as the NTC, Orlando, 1st Lieutenant's shop and the recycling center. Aluminum cans, cardboard, and paper were stockpiled at Building 2078 for shipment to recycling facilities.

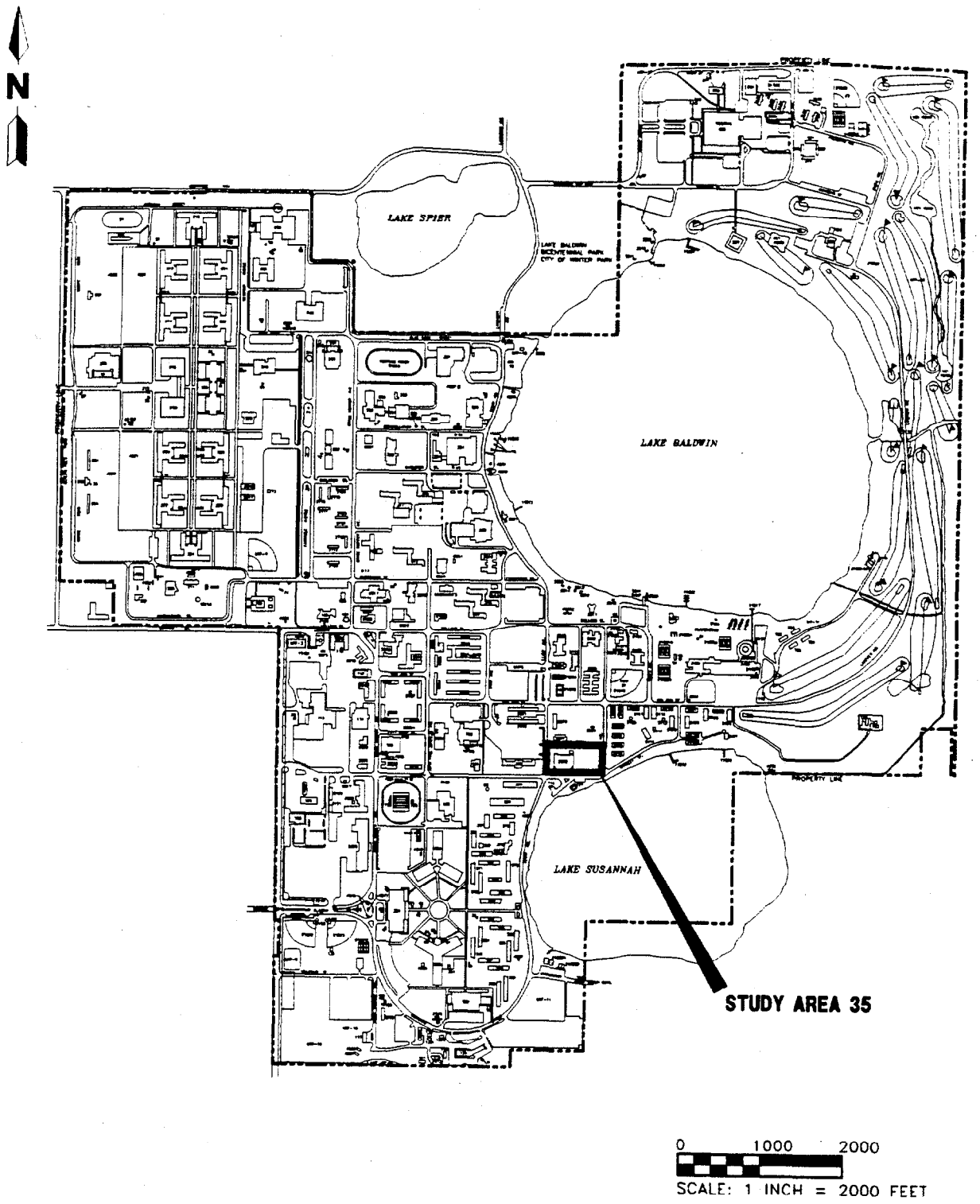

FIGURE 1
STUDY AREA LOCATION

SOURCE: HLA, 1996b

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BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT, STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA

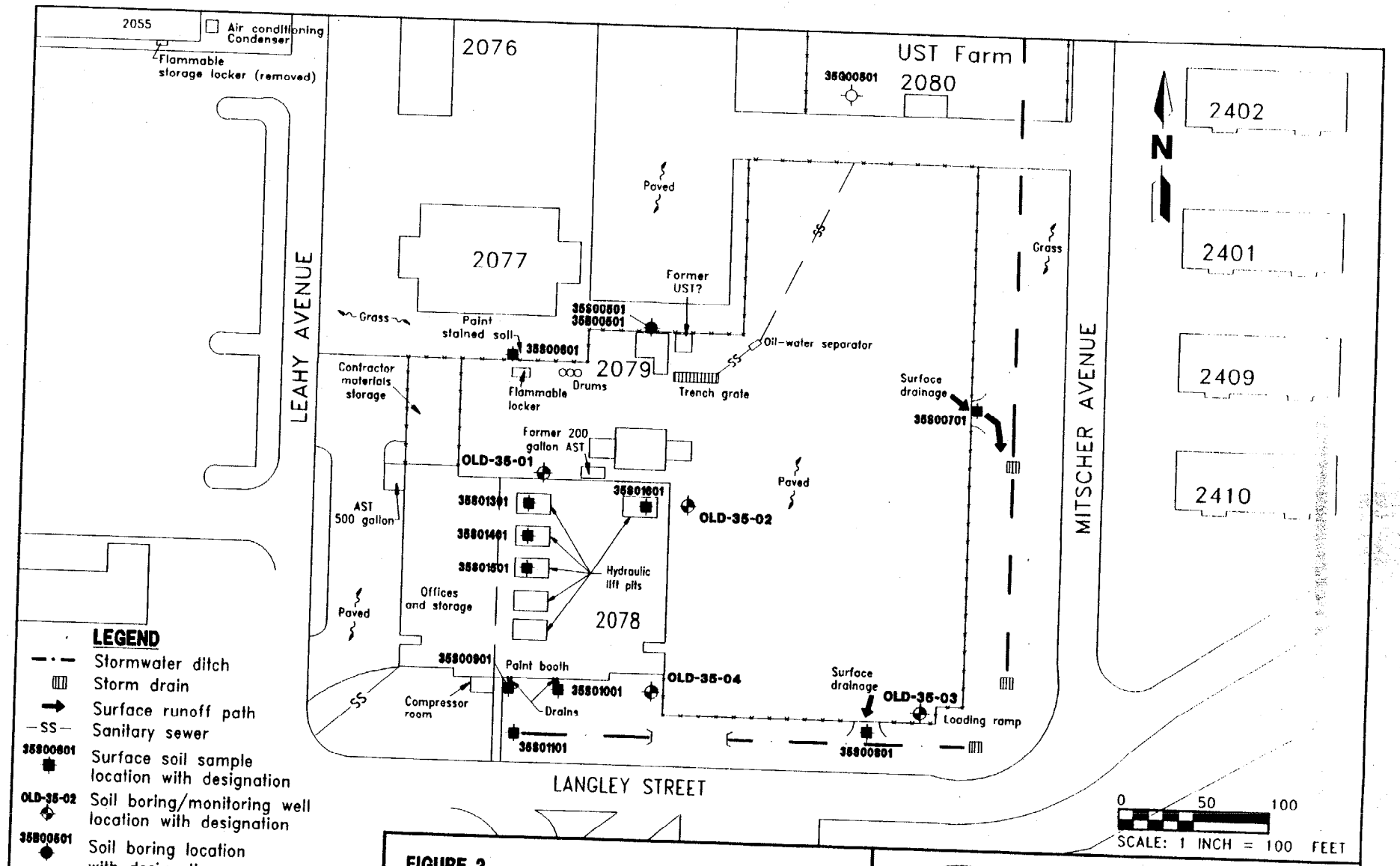

FIGURE 2
SURFACE SOIL, SOIL BORING AND MONITORING WELL LOCATIONS INITIAL SITE SCREENING INVESTIGATION

SOURCE: HLA, 1996b

BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT, STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA

2.0 SITE INVESTIGATION

2.1 INITIAL SITE SCREENING INVESTIGATION

The initial site screening investigation included a passive soil gas survey, soil sampling, and groundwater sampling. The investigation was intended to evaluate areas where automotive repair operations and related materials storage were most likely to release contaminants to the environment. Historical site activities and existing site conditions were used to determine sampling locations.

2.1.1 Field Investigation

The following areas or activities at SA 35 were investigated during the initial site screening investigation:

- An area on the south side of Building 2078 suspected of receiving wastewater discharged from a paint booth inside the building.
- An apparent release onto the pavement on the north side of Building 2078 from a drum storage area inside the building.
- The hydraulic lift pits at Building 2078.
- Potential releases due to unknown waste handling and storage practices at Building 2079.
- An area of stained soil adjacent to the flammable materials storage locker near the northwest corner of the SA.
- The drainage areas on the east and south sides of the SA receiving storm water runoff from the parking lot.
- The loading ramp located at the southeast corner of the parking lot.

2.1.1.1 Passive Soil Gas Survey

In order to rapidly identify areas where volatile organic compounds (VOCs) may have been released during vehicle maintenance operations and other site uses, a passive soil gas survey was conducted in the vicinity of Building 2078. A sampling grid with nodes 50 feet apart was established over the study area (Figure 3). A passive soil gas sample collector was installed approximately 2 feet below ground surface (bgs) at each grid node. Nodes that would have been under buildings or in concrete were offset where necessary. When the sample collectors were retrieved, they were submitted to a laboratory for VOC analysis.

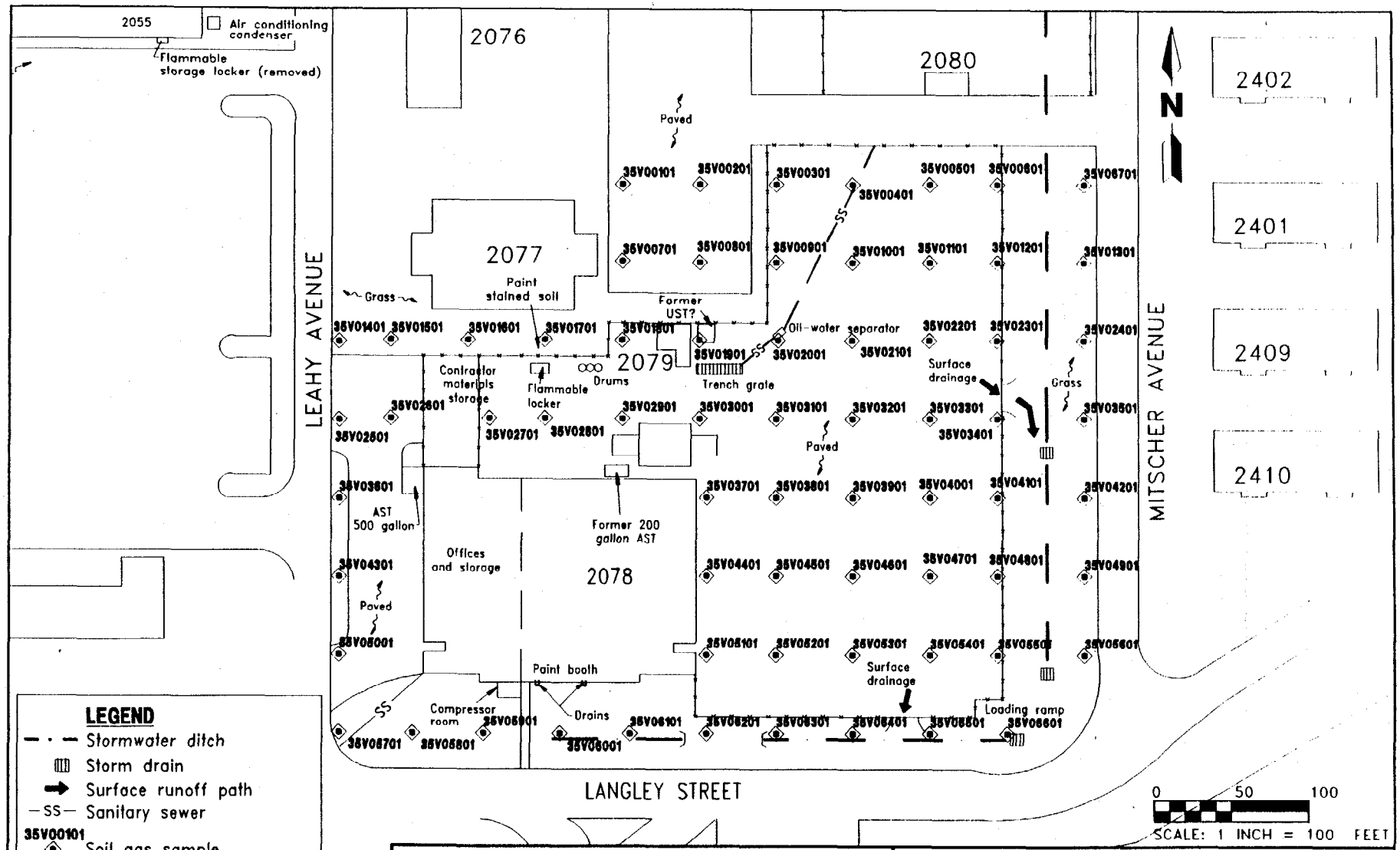

FIGURE 3
SOIL GAS SAMPLE LOCATIONS

SOURCE: HLA, 1996b

BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT, STUDY AREA 35

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2.1.1.2 Surface Soil Sampling

After the passive soil gas survey results were evaluated, surface soil samples were collected from the site following the rationale presented in the Site Screening Plan (ABB-ES, 1995a). Surface soil samples were collected at each of the five soil boring locations (35S00101 through 35S00501) and are discussed in Section 2.1.1.3. One surface soil sample, 35S00601, was collected in the area of paint-stained soil adjacent to the former location of a flammable materials storage locker north of Building 2078 (Figure 2).

Two surface soil samples were collected from the storm water drainage paths from the parking area east of Building 2078. Sample 35S00701 was collected on the east edge of the parking area, and 35S00801 was collected near the southeast corner of the pavement. Three surface soil samples, 35S00901, 35S01001, and 35S01101, were collected from the area around the paint booth discharge pipe on the south side of Building 2078.

The surface soil samples from each location were submitted to an approved laboratory for Contract Laboratory Program (CLP) Target Analyte List (TAL), Target Compound List (TCL), pesticides and polychlorinated biphenyls (PCBs), and total recoverable petroleum hydrocarbon (TRPH) analyses, in accordance with U.S. Environmental Protection Agency (USEPA) Level IV data quality objectives (DQOs).

2.1.1.3 Soil Boring Investigation and Subsurface Soil Sampling

In addition to the samples collected from the surface soil sample locations, five soil borings were advanced at SA 35 following the rationale presented in the Site Screening Plan (ABB-ES, 1995a). Surface and subsurface soil samples were collected at each soil boring location (Figure 2). One soil boring, OLD-35-01 (surface soil sample 35S00101, subsurface sample 35B00101), was located adjacent to the north side of Building 2078, where material may have seeped from a drum storage area inside the building. Another soil boring, OLD-35-02 (surface soil sample 35S00201, subsurface sample 35B00201), was located at the northeast corner of Building 2078, in the presumed downgradient direction from the trench drain at Building 2079 and the exterior hydraulic lift pit. Soil boring OLD-35-03 (surface soil sample 35S00301, subsurface sample 35B00301), was located in the southeast corner of the parking area, adjacent to the loading ramp and downgradient of activities in the parking area. Soil boring OLD-35-04 (surface soil sample 35S00401, subsurface sample 35B00401), was located at the southeast corner of Building 2078 and was intended to be downgradient of activities inside the building. Soil boring 35B005 (surface soil sample 35S00501, subsurface sample 35B00501) was located adjacent to a door on the north side of Building 2079, where disposal activities may have occurred.

At each soil boring location, subsurface soil samples were collected from the 2-foot interval varying from 4.5 to 8 feet bgs, which was immediately above the groundwater table at the time of sampling. Surface soil samples were also collected at each of the soil boring locations. Four soil borings (OLD-35-01 through OLD-35-04) were completed as monitoring wells (Figure 2). Soil boring logs and monitoring well installation diagrams are included in Appendix A.

The subsurface soil samples from each location were submitted to an approved laboratory for CLP TAL, TCL, pesticides and PCBs, and TRPH analyses, in accordance with USEPA Level IV DQOs.

2.1.1.4 Lift Pit Evaluation and Sampling

Prior to collecting lift pit soil samples, the construction and condition of the lift pits were evaluated. Each of the six interior lift pits was tested with a hand auger to determine if native soil was present at the floor of the pit. Four of the lift pits had native soil floors and two of the lift pits had cement floors. A well-indurated, cemented sand layer formed the native soil floors of the four pits without cement floors. The floor construction of the pit outside Building 2078 was not evaluated. During visits to the site, the outside pit had standing water with an oily sheen in the bottom.

After the lift pit construction evaluation, soil samples were collected from four of the lift pits inside Building 2078, rather than two as specified in the Site Screening Plan (ABB-ES, 1995a). One soil sample was collected from each of the four pits with native soil floors (Figure 2). Field personnel noted that some of these samples had a petroleum odor and an oily appearance.

The lift pit soil samples were submitted to an approved laboratory for CLP TAL, TCL, pesticides and PCBs, and TRPH analyses, in accordance with USEPA Level IV DQOs.

2.1.1.5 Groundwater Monitoring Well Installation and Sampling

After the passive soil gas survey results were evaluated, groundwater samples were collected from the site following the rationale presented in the Site Screening Plan (ABB-ES, 1995a). Four monitoring wells (OLD-35-01 through OLD-35-04, Figure 2) were installed during the initial screening investigation. An existing compliance well at the fuel storage area to the north at Building 2080 was also sampled (sample 35G00501). The soil borings for the new well installations were advanced approximately 16 feet into the surficial aquifer. The screened interval for each new monitoring well bracketed the water table, which was encountered at 8 to 9 feet bgs during the investigation.

A groundwater sample was collected from each well using low flow sampling techniques (ABB-ES, 1997). The groundwater samples were submitted to an approved laboratory for CLP TAL, TCL, pesticides and PCBs, total suspended solids (TSS), and TRPH analyses, in accordance with USEPA Level IV DQOs. Filtered groundwater samples (0.45 micron filter) were collected from each well for TAL metals analyses. Monitoring well installation diagrams and groundwater sample field data are included in Appendix A.

2.1.2 Initial Site Screening Results

The laboratory analytical results from the various media sampled at SA 35 are presented as Summary of Positive Detections Tables in Appendix B. A complete set of analytical results is presented in Appendix C. Exceedances of background or regulatory guidance concentrations (shaded on the positive hits tables) are displayed in chem-boxes near their respective explorations on Figure 4.

The analytical results of the soil samples were evaluated by comparing the concentrations of the various analytes detected to screening criteria, including basewide soil background screening levels, Florida Department of Environmental Protection (FDEP) Soil Cleanup Target Levels (SCTLs) and USEPA Region III Risk-Based Concentrations (RBCs).

The analytical results of the groundwater samples were evaluated by comparing the concentrations of the various analytes detected to screening criteria, including basewide groundwater background screening levels, FDEP Groundwater Cleanup Target Levels (GCTLs), Federal Maximum Contaminant Levels (MCLs) and USEPA Region III RBCs for tap water.

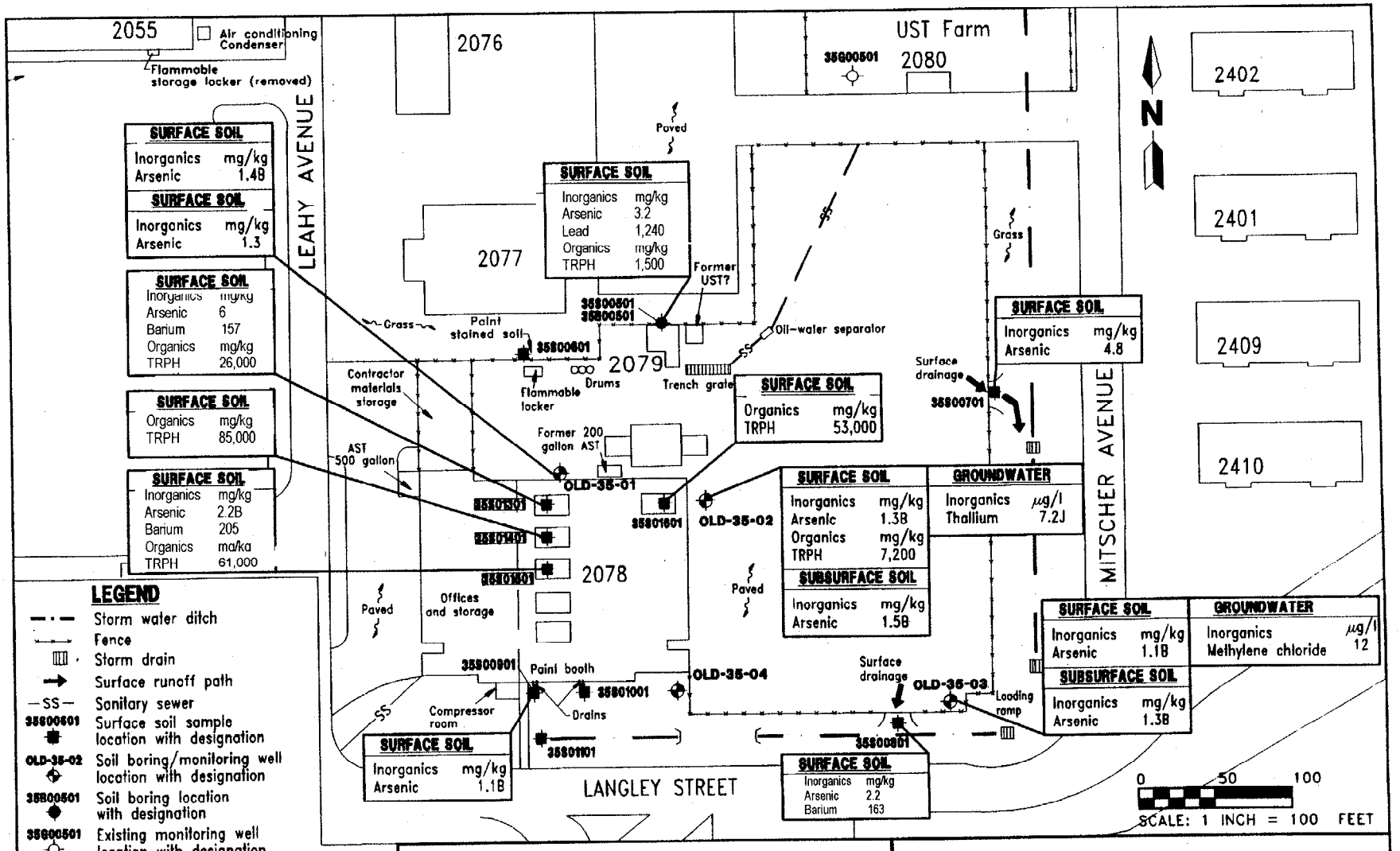
2.1.2.1 Passive Soil Gas Survey Results

No VOCs were detected in the passive soil gas samples collected during this field investigation.

2.1.2.2 Surface Soil Analytical Results

Analysis of the surface soil samples collected at SA 35 detected semivolatile organics, pesticides, PCBs, inorganics, and TRPH (Table B-1). Exceedances of background screening values (BGSV) or regulatory guidance concentrations are displayed in chem-boxes near their respective explorations on Figure 4.

Arsenic was detected in seven surface soil samples at concentrations above the residential SCTL of 0.8 milligrams per kilogram (mg/kg) and the BGSV of 1.0 mg/kg. The arsenic concentrations detected



LEGEND

- Storm water ditch
- Fence
- Storm drain
- Surface runoff path
- SS — Sanitary sewer
- 35S00501 — Surface soil sample location with designation
- OLD-35-02 — Soil boring/monitoring well location with designation
- 35S00501 — Soil boring location with designation
- 35G00501 — Existing monitoring well location with designation
- J — Duplicate
- B — Reported result is below contract-required detection limit and above instrument detection limit
- mg/kg — Milligrams per kilogram
- AST — Aboveground storage tank
- UST — Underground storage tank
- TRPH — Total recoverable petroleum hydrocarbons

FIGURE 4
SAMPLING LOCATIONS WITH SCREENING CRITERIA EXCEEDANCES, INITIAL SITE SCREENING INVESTIGATION

SOURCE: HLA, 1999b

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BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT, STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA

were 1.4 mg/kg in 35S00101, 1.3 mg/kg in 35S00201, 1.1 mg/kg in the duplicate for 35S00301, 3.2 mg/kg in 35S00501, 4.8 mg/kg in 35S00701, 2.2 mg/kg in 35S00801, and 1.1 mg/kg in 35S00901. The arsenic concentration in 35S00701 was also above the nonresidential SCTL of 3.7 mg/kg.

Lead was detected in one surface soil sample at a concentration above the residential SCTL of 500 mg/kg and the residential RBC of 400 mg/kg. The lead concentration in sample 35S00501 was 1,240 mg/kg. The lead concentration in 35S00501 was also above the nonresidential SCTL of 920 mg/kg.

Barium was detected in one surface soil sample at a concentration above the residential SCTL of 105 mg/kg. The barium concentration in sample 35S00801 was 163 mg/kg.

TRPH was detected in two surface soil samples at concentrations above the residential SCTL of 350 mg/kg. The TRPH concentrations detected were 7,200 mg/kg in sample 35S00201 and 1,500 mg/kg in sample 35S00501.

2.1.2.3 Subsurface Soil Analytical Results

Analysis of the subsurface soil collected at SA 35 detected semivolatile organics, pesticides, inorganics, and TRPH (Appendix B-2). Exceedances of site-specific background or regulatory guidance concentrations are displayed in chem-boxes near their respective explorations on Figure 4.

Arsenic was detected in three subsurface soil samples at concentrations above the residential SCTL of 0.8 mg/kg and the BGSV of 1.1 mg/kg. The arsenic concentrations detected were 1.3 mg/kg in sample 35B00101, 1.5 mg/kg in sample 35B00201, and 1.3 mg/kg in sample 35B00301.

2.1.2.4 Lift Pit Sample Results

Analysis of the soil samples collected from the lift pits inside Building 2078 detected VOCs, semivolatile organics, pesticides, inorganics, and TRPH (Appendix B-3). Exceedances of site-specific background or regulatory guidance concentrations are displayed in chem-boxes near their respective explorations on Figure 4.

TRPH was detected in four lift pit soil samples at concentrations above the residential SCTL of 340 mg/kg. The TRPH concentrations detected were 26,000 mg/kg in sample 35S01301, 85,000 mg/kg

in sample 35S01401, 61,000 mg/kg in sample 35S01501, and 53,000 mg/kg in sample 35S01601. The TRPH concentrations also exceeded the nonresidential SCTL of 2,500 mg/kg.

Arsenic was detected in two lift pit soil samples at concentrations above the residential SCTL of 0.8 mg/kg and the BGSV of 1.0 mg/kg. The arsenic concentrations detected were 6 mg/kg in sample 35S01301 and 2.2 mg/kg in sample 35S01501. The arsenic concentration in 35S01301 was also above the nonresidential SCTL of 3.7 mg/kg.

Barium was detected in two lift pit soil samples at concentrations above the residential SCTL of 105 mg/kg. The barium concentrations detected were 157 mg/kg in sample 35S01301 and 205 mg/kg in sample 35S01501.

2.1.2.5 Groundwater Analytical Results

Analysis of the groundwater samples collected during the initial site screening investigation at SA 35 detected VOCs, semivolatile organics, pesticides, and inorganics (Appendix B-4). Exceedances of site-specific background or regulatory guidance concentrations are displayed in chem-boxes near their respective explorations on Figure 4.

Thallium was detected in one groundwater sample at a concentration above the GCTL and the MCL of 2 μg/L and the BGSV of 3.8 micrograms per liter (μg/L). The thallium concentration in sample 35G00201 was 7.2J μg/L. The filtered groundwater sample, 35H00201, had a thallium concentration below the laboratory detection limit.

Methylene chloride was detected in one groundwater sample at a concentration above the GCTL and the MCL of 5 μg/L. The methylene chloride concentration in sample 35G00301 was 12 μg/L.

2.2 HYDRAULIC LIFT PIT GROUNDWATER ASSESSMENT

The analytical results from the lift pit floor samples suggested that petroleum-based materials were released into the hydraulic pits at concentrations high enough for potential migration to groundwater. A supplemental groundwater investigation was conducted to determine if the materials could be detected in groundwater samples adjacent to the lift pits.

2.2.1 Microwell Installation and Sampling

Four microwells were installed inside Building 2078 (Figure 5). Three microwells, OLD-35-05, OLD-35-06, and OLD-35-08, were installed adjacent to lift pits. The fourth microwell, OLD-35-07, was installed downgradient (southeast) of the pits located on the west side of the building. Analysis of water level data collected in January 1998 from the four monitoring wells installed during the initial site screening investigation indicated that groundwater flow at SA 35 was generally to the southeast, in the direction of Lake Susannah (Appendix D). The water table gradient was approximately 0.005 ft/ft.

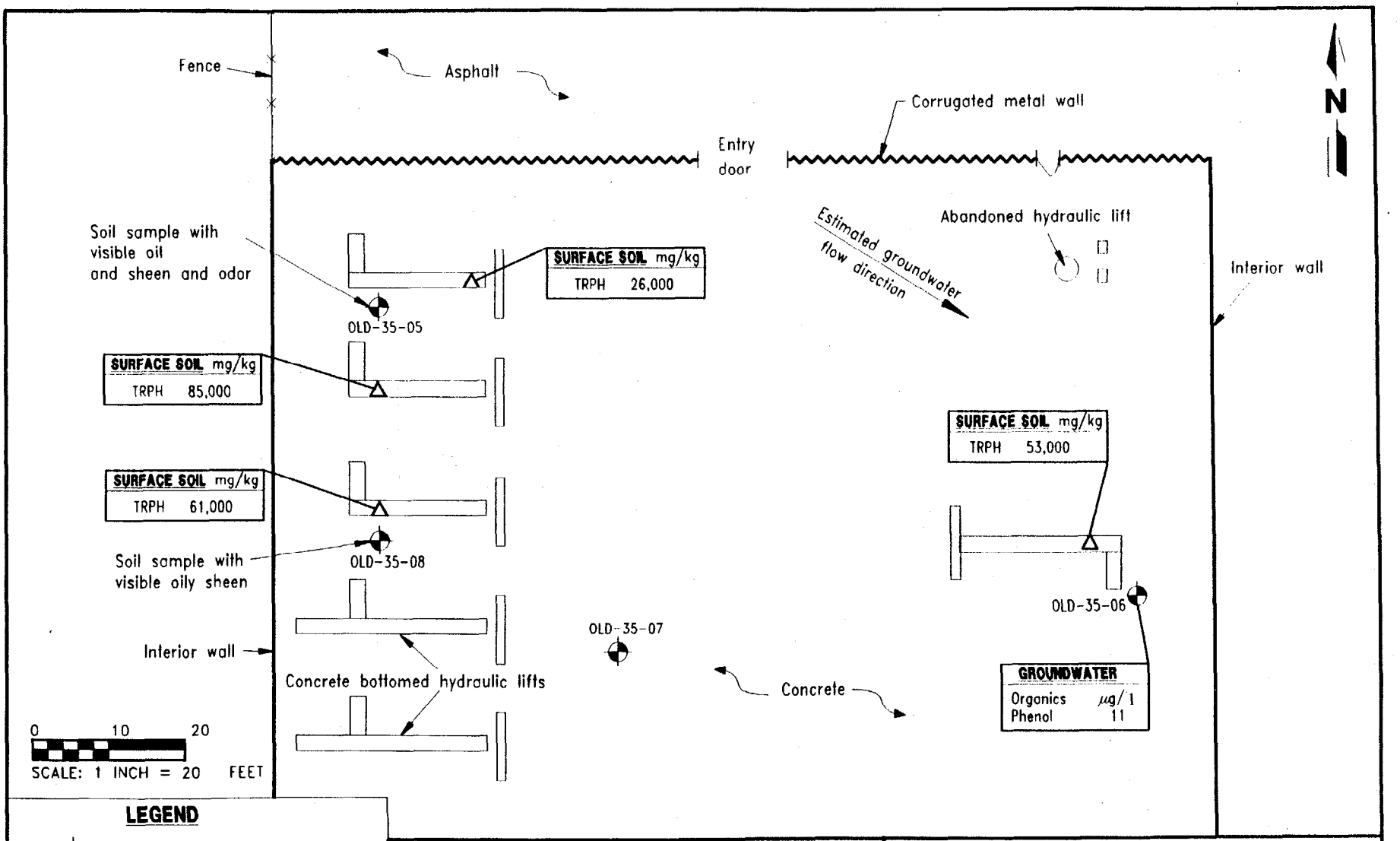
To allow for well installation, a 4-inch-diameter hole was cored through the concrete floor at each microwell location. Attempts to install the microwells by driving 2-inch-diameter casing to a depth of 16 feet bgs were unsuccessful due to the cemented sand layer noted during the lift pit construction evaluation. The soil borings for three of the microwell installations were advanced to approximately 13 feet bgs. The fourth microwell, OLD-35-07, was installed to a depth of 11.5 feet due to refusal. The screened interval for each microwell bracketed the water table, which was encountered at approximately 8 feet bgs during the investigation. Field personnel noted that soil from the OLD-35-05 boring, which was located between two lift pits, had an oily appearance and a petroleum odor.

A groundwater sample was collected from each microwell using low flow sampling techniques (ABB-ES, 1997). The groundwater samples were submitted to an approved laboratory for CLP TCL and TRPH analyses, in accordance with USEPA Level IV DQOs. Microwell installation diagrams and groundwater sample field data are included in Appendix A.

2.2.2 Groundwater Analytical Results

VOCs and semivolatile organics were detected in groundwater samples collected during the hydraulic lift pit assessment at SA 35 (Appendix B-5). Exceedances of site-specific background or regulatory guidance concentrations are displayed in chem-boxes near their respective explorations on Figure 5.

Phenol was detected in one groundwater sample at a concentration above the GCTL of 10 μg/L, but below the RBC of 22,000 μg/L. The phenol concentration in sample 35G00601 was 11 μg/L. The GCTL for phenol is an organoleptic standard based on taste and odor, and at these low concentrations is not expected to produce any adverse health effects.



LEGEND

⊕	Microwell location
△	Surface soil location
TRPH	Total recoverable petroleum hydrocarbons
µg/l	Micrograms per liter
mg/kg	Milligrams per kilogram

FIGURE 5

SURFACE SOIL AND GROUNDWATER EXCEEDANCES INSIDE BUILDING 2078

SOURCE: HLA, 1996b

BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT, STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA

3.0 REMEDIAL ACTIVITIES

Based on the results of the site screening investigation, several areas at SA 35 were identified where arsenic and/or TRPH concentrations in surface or lift pit soils exceeded residential screening criteria (Figure 6). The Orlando Partnering Team (OPT) determined that surface soil and lift pit soil removal would be an appropriate IRA to address arsenic and TRPH exceedances.

3.1 IRA SPECIFICATIONS

After evaluating the site screening data, a work plan was prepared which described the planned IRA implementation (Harding Lawson Associates [HLA], 1999). The objective of the IRA was to excavate and properly dispose of lift pit and surface soils where TRPH and/or arsenic concentrations were greater than FDEP residential SCTLs (Figure 6). These areas were defined in the work plan to include:

- Area A - the sample location on the north side of Building 2079 (TRPH and arsenic)
- Areas B and G - the two sample locations at the northeast and northwest corners of Building 2078 (TRPH and arsenic)
- Area C - the exterior lift pit north of Building 2078 with evidence of release of petroleum products (oily sheen in standing water described in Section 1.2)
- Area D - the inside lift pit on the east side of Building 2078 (TRPH)
- Area E - the three inside lift pits on the west side of Building 2078 (TRPH and arsenic)
- Area F - the surface soil sample location on the south side of Building 2078 (arsenic)
- Areas H and I - the two surface soil sample locations along the east-central and southeast boundaries of the SA (arsenic)

A sampling protocol was specified in the IRA work plan to confirm when sufficient soil had been removed from a location to achieve the IRA objective.

3.2 IRA EXECUTION – APRIL 1999

DET was contracted to perform the IRA as specified in the work plan (HLA, 1999aa). The DET performed the IRA in April 1999, and the portion of the Completion Report (DET, 1999) that describes the soil

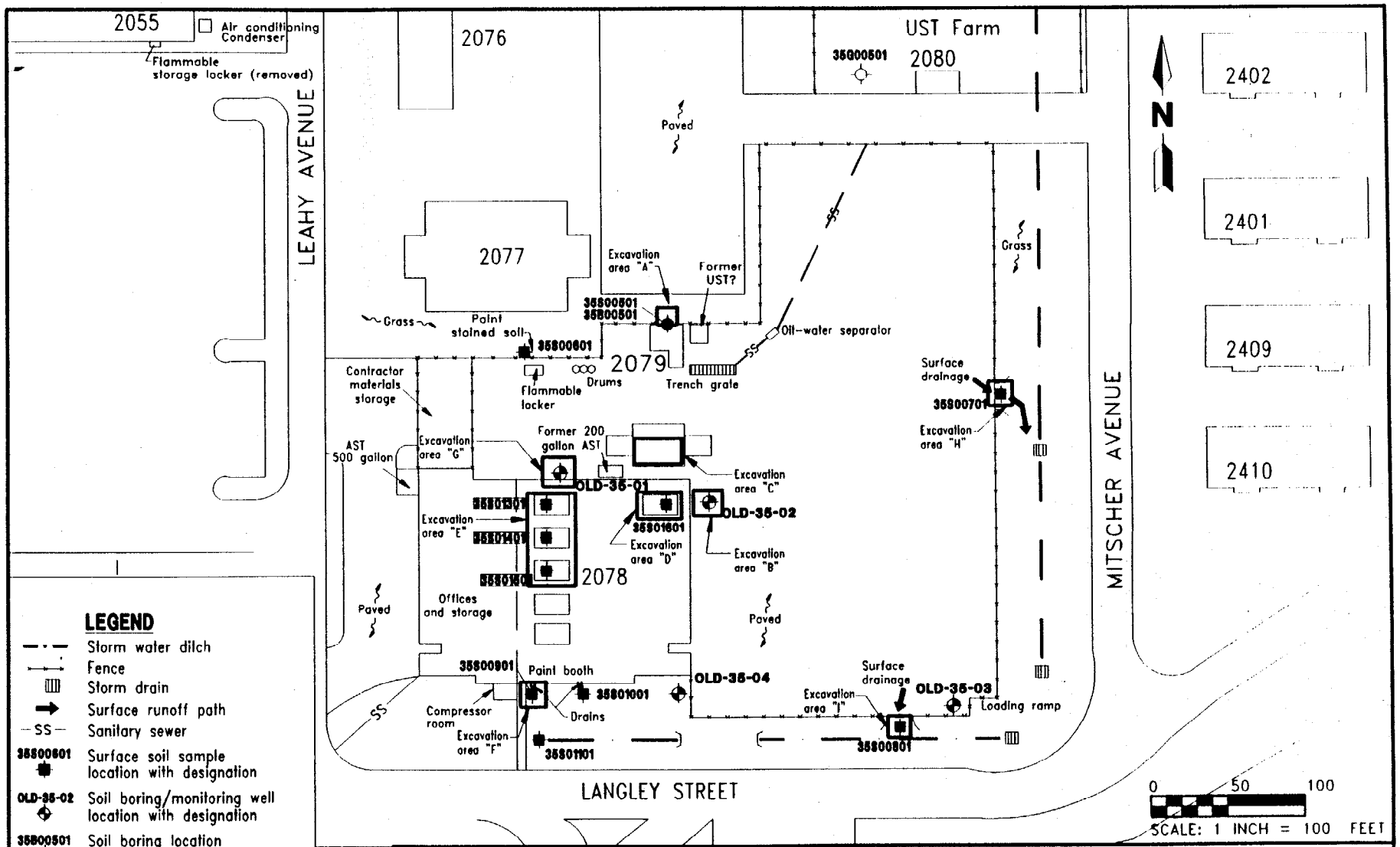


FIGURE 6
RECOMMENDED INTERIM REMEDIAL ACTION SOIL EXCAVATIONS

SOURCE: HLA, 1996b

BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT, STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA

removal is included as Appendix E. Eight of the nine areas specified in the IRA work plan (HLA, 1999aa) were excavated by the DET. Approximately 1,159 tons of soil were removed from the site, and the excavated material was characterized as nonhazardous and disposed of in a permitted facility. The OPT determined that excavation of area F was not needed.

Tetra Tech NUS presented the results of 95% Upper Confidence Limit (UCL) calculations for the Study Area at the April meeting of the Orlando Partnering Team. Soil sample 35S00901 in area F had a minor exceedance with an arsenic analysis of 1.1J (Section 2.1.2.2) but calculations showed that excavation of area F was unnecessary to achieve a 95% UCL value less than the BGSV of 1.0 mg/kg. As a result, the partnering team directed the DET not to excavate area F.

Based on analytical data collected during the IRA, excavation area A was extended approximately 15 feet further east than specified in the IRA work plan (HLA, 1999a). The area of excavation B was extended approximately 15 feet to the north and 10 feet to the south of the dimensions specified in the IRA work plan (HLA, 1999a), based on confirmation sample data collected by the DET. The other six excavation areas were nominally of the dimensions specified in the IRA work plan (HLA, 1999a).

Confirmation sample data collected by the DET from the edges of the excavations indicate that remedial goal options (RGOs) were achieved in excavation areas B, C, D, E, G, H, and I. A confirmation sample collected directly adjacent to Building 2079 from the south wall of excavation area A (along the north wall of Building 2079) contained arsenic at a concentration of 6.4 mg/kg. The OPT directed the DET to not excavate beneath the building.

4.0 ADDITIONAL SAMPLING AND REMEDIATION

Because of the arsenic exceedance along the south wall of excavation area A and the lead exceedance in soil sample 35S00501, TtNUS was directed to collect additional confirmation samples.

4.1 SOIL SAMPLING - APRIL 2000

Four soil samples were collected from a depth of 0 to 1 foot bgs at the edges of excavation area A (Figure 7) to confirm that lead concentrations did not exceed the screening criterion. Prior to sampling, measures were taken (i.e., digging) to determine the limits of the excavation area. The samples were submitted to an approved laboratory for lead analysis. The sample from the south edge was also analyzed for arsenic to confirm that concentrations did not exceed the screening criterion. Composite samples were collected at the north and south edges and discrete samples were collected at the east and west edges of excavation area A.

Arsenic and lead were detected in all April 2000 samples for which they were analyzed (Appendix B-6). Arsenic was detected at a concentration of 1.2 mg/kg in sample NTC35SA01612 (from the south wall of the excavation) which exceeded the residential SCTL of 0.8 mg/kg and the BGSV of 1.0 mg/kg (ABB-ES, 1995b). However, FDEP determined that adequate soil had been removed in this area and no further remediation was required. Lead was detected at a concentration of 468 mg/kg in sample NTC35SA01512 (from the north wall of the excavation) which exceeded the residential SCTL of 400 mg/kg and the BGSV of 14.5 mg/kg (ABB-ES, 1995b). The lead concentrations in the other samples did not exceed the SCTL.

4.2 SOIL SAMPLING - JUNE 2000

Because the lead concentration in sample NTC35SA01512 exceeded the residential SCTL, three additional discrete surface soil samples were collected near the paved area north of excavation area A from a depth of 0 to 1 foot bgs (Figure 7). The samples were submitted to an approved laboratory for lead analysis.

Lead was detected in all three of the June 2000 samples, but all concentrations were below the residential SCTL (Appendix B-6).

n8-5x11h.dgn

SOURCE: HLA, 1999

LEGEND

CONFIRMATION SOIL SAMPLE (APRIL 1999) ●

SURFACE SOIL SAMPLE 1' BGS (APRIL AND JUNE 2000) ○

COMPOSITE SOIL SAMPLE 1' BGS (APRIL 2000) □

EXCAVATED 2' DEPTH (APRIL 1999)

EXCAVATED 2' DEPTH (AUGUST 2000)

ESTIMATED CONCENTRATION J

SAMPLE NUMBER — SAMPLE COLLECTION DATE

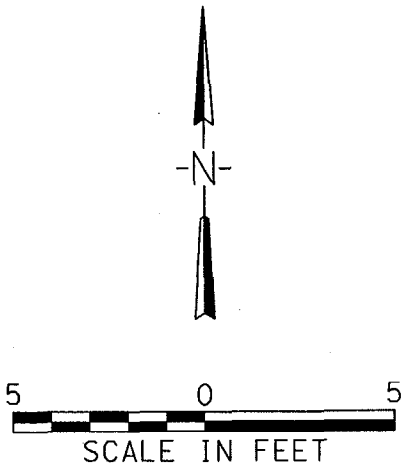
NTC35SA01701	4/00
ARSENIC LEAD	**1.2** 23.4

CHEMICAL — CHEMICAL[1,2] CONCENTRATION

SCREENING CRITERION[1]	
ARSENIC	1.0
LEAD	400

1-CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg)

2-BOLD CONCENTRATION INDICATES SCREENING CRITERIA EXCEEDANCE



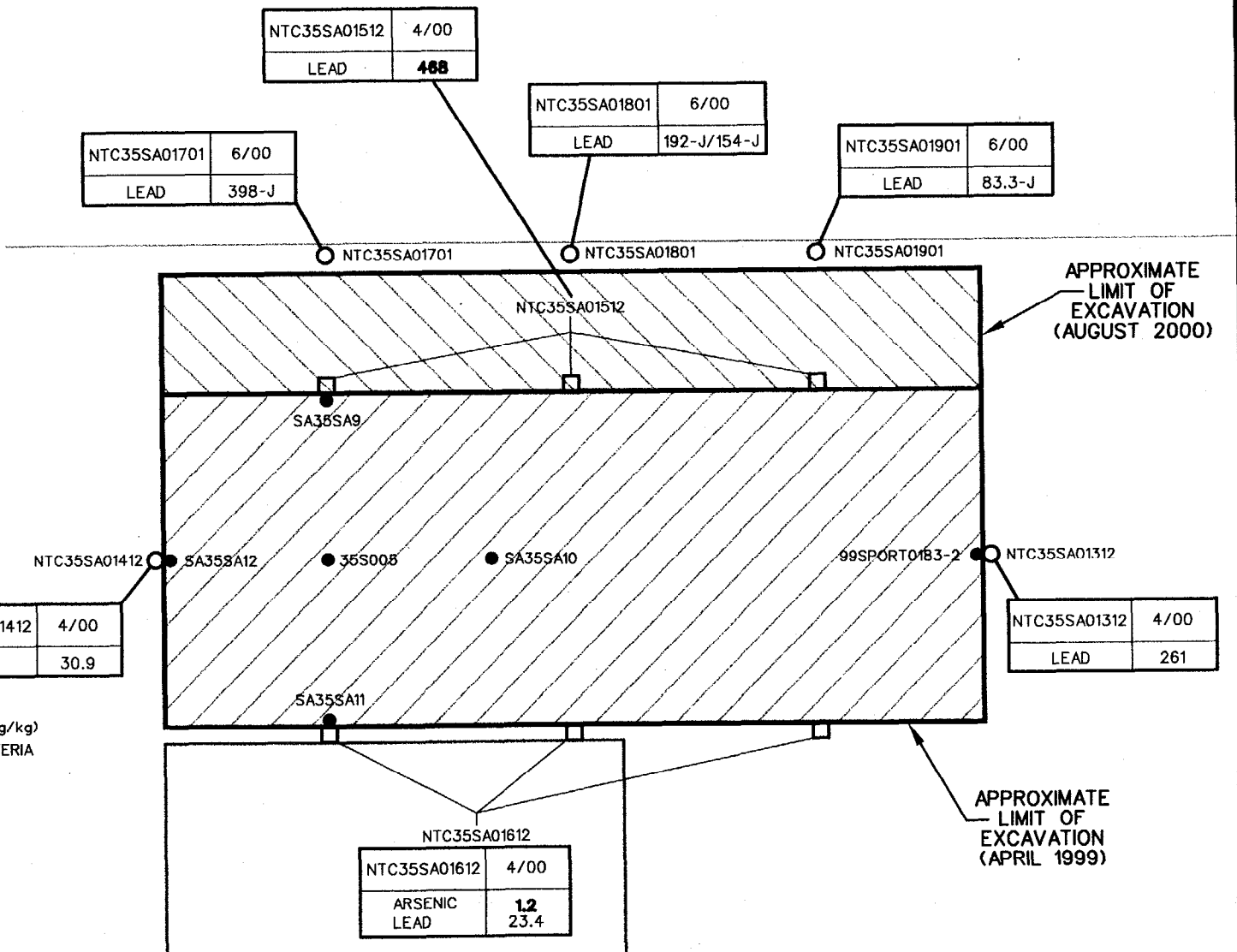


FIGURE 7

SOIL SAMPLING RESULTS AT EXCAVATION AREA A APRIL AND JUNE 2000 STUDY AREA 35 - MAIN BASE

NAVAL TRAINING CENTER ORLANDO, FLORID

Rev. 1 12/15/00

CAD FILE NO./DATE: 74570094.dgn/10-12-00

4709006

4-2

CTO 0024

4.3 IRA Execution – August 2000

In August 2000 the Environmental Enterprise Group (EEG) removed the soil with lead concentrations above the residential SCTL. Approximately 20 cubic yards of soil were removed and the excavation was backfilled with clean fill. The limit of the excavation is shown in Figure 7. Photos of the excavation are included in the EEG completion report provided in Appendix F. The excavated soil was transported to the McCoy Annex Landfill.

5.0 CONCLUSIONS AND RECOMMENDATIONS

During the site screening investigations at SA 35, soil gas, surface soil, subsurface soil, lift pit soil, and groundwater samples were collected and analyzed. Based on the results of the site screening investigations, an IRA was conducted to remediate soil with TRPH and arsenic exceedances in surface soil and lift pit soil. During the confirmation sampling as part of the IRA soil removal, arsenic was detected at a concentration of 6.4 mg/kg along the south wall of excavation area A next to the building foundation. This led to the collection of additional samples at this location which were submitted for both arsenic and lead analyses. These samples were collected to verify the previous arsenic concentration of 6.4 mg/kg and determine whether or not lead-contaminated soil had been removed.

5.1 SURFACE SOILS AND LIFT PIT SOILS

An IRA was conducted to remediate surface and lift pit soils where TRPH and arsenic were detected at concentrations greater than FDEP residential SCTLs. The results presented in the Completion Report (DET, 1999) indicate the RGOs for arsenic and TRPH outlined in the IRA work plan were met at seven of the eight excavation areas. A confirmatory sample collected adjacent to the north side of Building 2079 from excavation area A contained arsenic at a concentration of 6.4 mg/kg. This concentration is above the industrial SCTL of 3.7 mg/kg, but below the leaching SCTL of 29 mg/kg.

Other analytes exceeding surface soil screening criteria included lead in sample 35S00501 and barium in sample 35S00801. Other exceedances of lift pit soil screening criteria included heptachlor in sample 35S01401 and barium in samples 35S01301 and 35S01501. These sample locations were remediated during the IRA soil removal.

Because of the lead exceedance in sample 35S00501 and the arsenic detection of 6.4 mg/kg in the confirmation sample along the south wall of excavation area A, additional confirmation sampling was performed in April and June 2000. The additional sampling resulted in the subsequent removal of additional lead-contaminated soil in August 2000.

Based on available information, the remedial activities at SA 35 are protective of human health and the environment for exposure to surface soil and lift pit soils at the site. The RGOs for arsenic and TRPH outlined in the IRA work plan (HLA, 1999a) were initially met at seven of the eight excavation areas. Following an additional IRA soil removal at excavation area A, confirmatory sampling at this area indicates that the arsenic and lead concentrations are no longer an environmental concern. The arsenic

concentrations detected in surface soil at SA 35 are consistent with routine surface application of arsenic based pesticides. Because there is no historical indication that pesticides were mixed or stored at Building 2079, it is unlikely that spills or disposal occurred in this area. The data indicate that surface soils now meet the intended reuse for this parcel, which is residential.

5.2 SUBSURFACE SOILS

Arsenic was detected in three subsurface soil samples at concentrations above the residential SCTL and established background screening concentration. The arsenic concentrations detected were 1.3 mg/kg in sample 35B00101, 1.5 mg/kg in sample 35B00201, and 1.3 mg/kg in sample 35B00301. While these concentrations are slightly above the residential screening criteria, they are below the industrial SCTL of 3.7 mg/kg and the leaching SCTL of 29 mg/kg.

These subsurface soil samples were collected from the interval of 4.5 to 7.5 feet bgs and the concentrations of arsenic only marginally exceeded the residential SCTL for surface soil. Moreover, at these depths, it is not expected that there will be any human exposure to these soils. Because these arsenic concentrations are very close to the background screening concentration, no further sampling or delineation is considered necessary and the subsurface soils may be left in place with no further restrictions.

5.3 GROUNDWATER

Thallium, methylene chloride, and phenol were detected at concentrations above the GCTL or site-specific background in groundwater samples collected at SA 35. The nature of these exceedances is discussed in the following sections.

5.3.1 Thallium

One groundwater sample from the SA, 35G00201, contained thallium at a concentration above the screening criteria. The detected concentration of 7.2 J μg/L was above the BGSV of 3.8 μg/L and the GCTL and MCL of 2 μg/L. In all likelihood, the elevated thallium concentration in groundwater sample 35G00201 is an artifact due to suspended sediment in the sample. The turbidity of the unfiltered sample was 31 nephelometric turbidity units (NTUs). The filtered groundwater turbidity was 0.16 NTU and the filtered groundwater sample, 35H00201, had a thallium concentration below the laboratory detection limit.

The data indicate that the thallium detection in sample 35G00201 is due to sample turbidity. Furthermore, no source or indicated use of thallium was identified at the site. Therefore, no further delineation or remediation to address thallium in groundwater is warranted.

5.3.2 Methylene Chloride

One groundwater sample collected during the initial site screening investigation, 35G00301, contained methylene chloride at a concentration above the GCTL and the MCL of 5 μg/L. The methylene chloride concentration in sample 35G00301 was 12 μg/L. Methylene chloride was detected at 2 μg/L in one other groundwater sample collected during the initial site screening investigation (35G00401). Methylene chloride was not detected in the soil samples collected at the site or in the groundwater samples collected from the microwells sampled at a later date.

The detection of methylene chloride in samples from SA 35 does not appear to be site-related. Methylene chloride is commonly encountered as a laboratory artifact in environmental samples, because it is the principal solvent used in the majority of USEPA analytical methods. While the analytical results for groundwater and associated quality assurance/quality control samples for the particular sample delivery group (SDG) do not indicate laboratory contamination, other SDGs submitted to the same analytical laboratory have had low level detections of methylene chloride in both rinsate and trip blanks.

Another factor supporting the interpretation of the methylene chloride detections as a laboratory artifact is that it is the only VOC detected in the groundwater samples collected at SA 35 during the initial site screening investigation. Methylene chloride is inherently unstable and would likely degrade in time into other compounds, such as chloroform or chloromethane. Moreover, industrial-grade methylene chloride normally contains plasticizers and stabilizers (e.g., cyclohexane) and is sometimes mixed with other chlorinated solvents, which probably would have been detected by the analytical methods used if present in the groundwater samples.

Therefore, the methylene chloride detections in groundwater samples collected from SA 35 are probably laboratory artifacts, and no further delineation or remediation to address methylene chloride in groundwater is warranted.

5.3.3 Phenol

One groundwater sample collected during the hydraulic lift pit groundwater assessment, 35G00601, contained phenol at a concentration of 11 μg/L, exceeding the GCTL of 10 μg/L. One other groundwater

sample collected during the lift pit assessment, 35G00801, contained phenol at a concentration of 7 μg/L. Phenol was not detected in the soil samples collected at the site or in the groundwater samples collected during the initial site screening investigation.

Phenol is not a typical laboratory contaminant. However, there is no obvious source for phenol at SA 35, because it was not detected in other matrices or in groundwater samples collected during the initial site screening investigation. More common laboratory contaminants, acetone and bis(2-ethylhexyl)phthalate, were detected in groundwater samples collected during the hydraulic lift pit groundwater assessment. Alternatively, phenol can be a naturally occurring compound. At SA 35, phenol was detected along with carbon disulfide. Both phenol and carbon disulfide can be found in nature, particularly in organic-rich matrices.

The phenol detections in groundwater samples collected from SA 35 may be naturally occurring or due to laboratory contamination. The phenol concentration detected in sample 35G00601 was 11 μg/L, which only marginally exceeds the GCTL of 10 μg/L. Therefore, no further delineation or remediation is warranted to address phenol in groundwater at SA 35.

5.4 SUMMARY

Data collected during the site screening investigation at SA 35 indicated that surface soil and lift pit soil at several sample locations had TRPH, arsenic, or lead concentrations above the cleanup criteria for residential soil. An IRA was conducted to remediate the surface soils in the vicinity of these sample locations. The results presented in the Completion Report (DET, 1999) indicate the RGOs for TRPH and arsenic were met at seven of the eight excavation areas. Subsequent confirmation sampling and a further limited excavation at area A resulted in RGOs being met for arsenic and lead at the eighth excavation area. Based on available information, the remedial activities at SA 35 are protective of human health and the environment for exposure to surface soil and lift pit soil at the site.

Subsurface soil samples collected at three locations at SA 35 contained arsenic at concentrations above the residential SCTL and the BGSV. These subsurface soil samples were collected from the interval of 4.5 to 7.5 feet bgs and the concentrations of arsenic only marginally exceeded the residential SCTL. Moreover, at these depths, it is not expected that there will be any human exposure to these soils. Because these arsenic concentrations are very close to the BGSV, no further sampling or delineation is necessary and the soils may be left in place with no further restrictions.

Groundwater samples collected at SA 35 contained phenol, methylene chloride, and thallium at concentrations above the GCTL. The methylene chloride detections are probably artifacts from the

sampling and analysis process and do not represent actual groundwater conditions at SA 35. The phenol detected in groundwater may be naturally occurring or due to laboratory contamination. The thallium exceedance detected in the unfiltered groundwater sample from OLD-35-02 is very likely due to elevated sample turbidity, because the filtered sample from well OLD-35-02 did not contain detectable levels of thallium. Based on these considerations, no further delineation or remediation to address phenol, methylene chloride, or thallium in groundwater is warranted.

It is recommended that SA 35 be made eligible for transfer, and that the site be reclassified from 7/Gray to 4/Dark Green.

5.5 OPT CONCURRENCE

The undersigned members of the Orlando Partnering Team concur with the findings and recommendations of the preceding investigation.

STUDY AREA 35

Nancy Rodriguez U.S. Environmental Protection Agency, Region IV	1-16-01 Date
David P. Grabka Florida Department of Environmental Protection	12-28-00 Date
Wayne Hansel U.S. Department of the Navy	12-21-00 Date

REFERENCES

ABB-ES (ABB Environmental Services, Inc.), 1995a. *Site Screening Plan, Groups I through IV Study Areas and Miscellaneous Additional Sites, Naval Training Center, Orlando, Florida.*

ABB-ES, 1995b. *Background Sampling Report, Naval Training Center, Orlando, Florida.* Unit Identification Code N65928, Contract No. N62467-89-D-0317, August.

ABB-ES, 1997. *Project Operations Plan for Site Investigations and Remedial Investigations, Naval Training Center, Orlando, Florida.* Unit Identification code N65928, Contract No. N62467-89-D-0317/107, August.

DET (Environmental Detachment Charleston, S.C.), 1999. *Completion Report, Interim Remedial Action, SA 17, 18, 23, 35, 37, 40, 42, and OU 3 & 4, Naval Training Center and McCoy Annex, Orlando, Florida,* August.

HLA (Harding Lawson Associates), 1999a. *Base Realignment and Closure Work Plan for Interim Remedial Action, Study Area 35, Naval Training Center, Orlando, Florida.* Unit Identification Code N65928, Contract No. N62467-89-D-0317/107, January.

HLA, 1999b. *Final Draft Base Realignment and Closure Environmental Site Screening Report, Study Area 35, NTC, Orlando, Florida.* Unit Identification Code N65928, Contract No. N62467-89-D-0317/107, November.

TtNUS (Tetra Tech NUS, Inc.), 2000. *Work Plan for Soil Sampling, Naval Training Center, Orlando, Florida.* Unit Identification Code N65928, Contract Task Order 0024, June.

APPENDIX A

SOIL BORING LOGS, MONITORING WELL CONSTRUCTION DIAGRAMS, MONITORING WELL DEVELOPMENT FORMS, AND GROUNDWATER SAMPLING FIELD DATA SHEETS

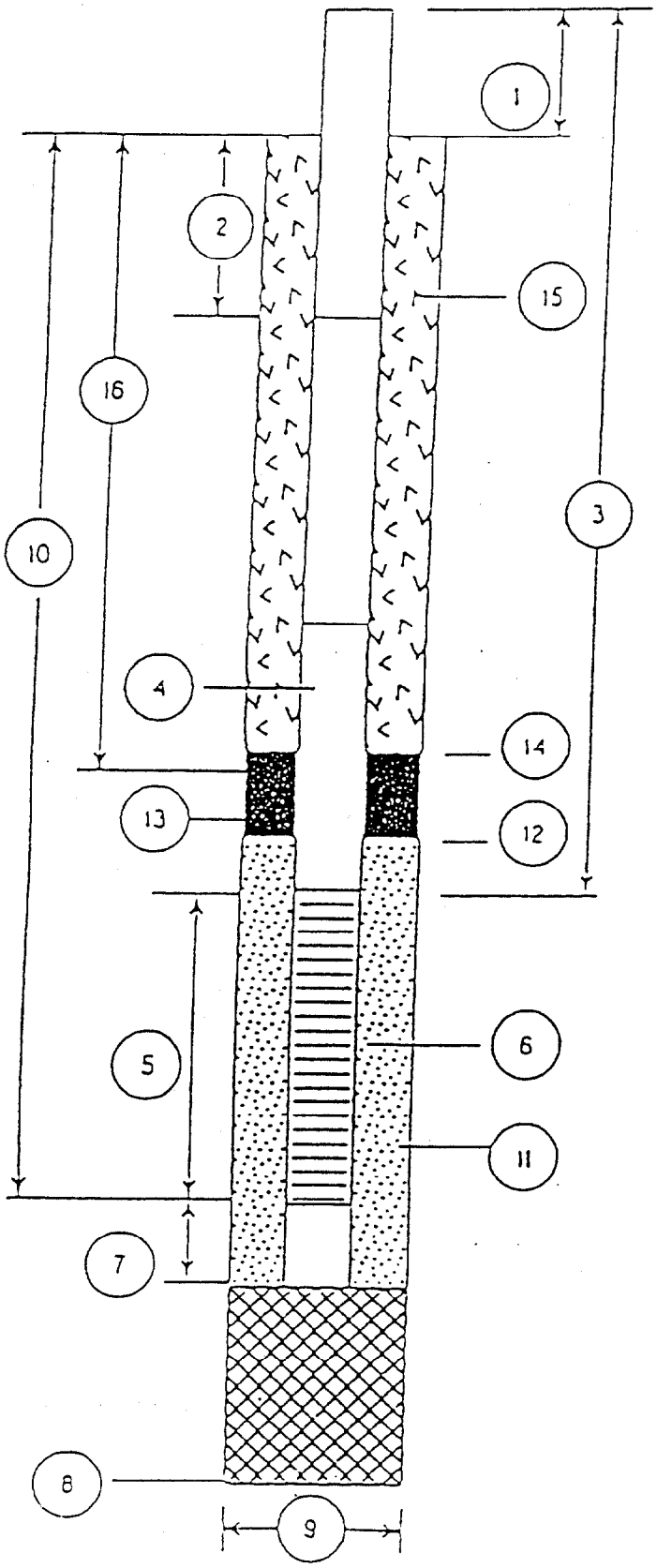
DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

WELL NUMBER: OLD-35-01

DATE OF INSTALLATION: 10-7/97



1. Height of Casing above ground: FM
2. Depth to first Coupling: 6'

   Coupling Interval Depths: NA
3. Total Length of Riser Pipe: 6'
4. Type of Riser Pipe: 2" sched. 40 PVC
5. Length of Screen: 10'
6. Type of Screen: 2" sched. 40 PVC 0.010 slot
7. Length of Sump: 6"
8. Total Depth of Boring: 16'
9. Diameter of Boring: 10 1/4"
10. Depth to Bottom of Screen: 16'
11. Type of Screen Filter: Silica sand

    Quantity Used: 4 50 lb Size: 20/30
12. Depth to Top of Filter: 4'
13. Type of Seal: fine sand 30/65

    Quantity Used: NR
14. Depth to Top of Seal: 2'
15. Type of Grout: NA

    Grout Mixture:

    Method of Placement: ____
16. Tot. Depth of 6 in. Steel Casing: NA

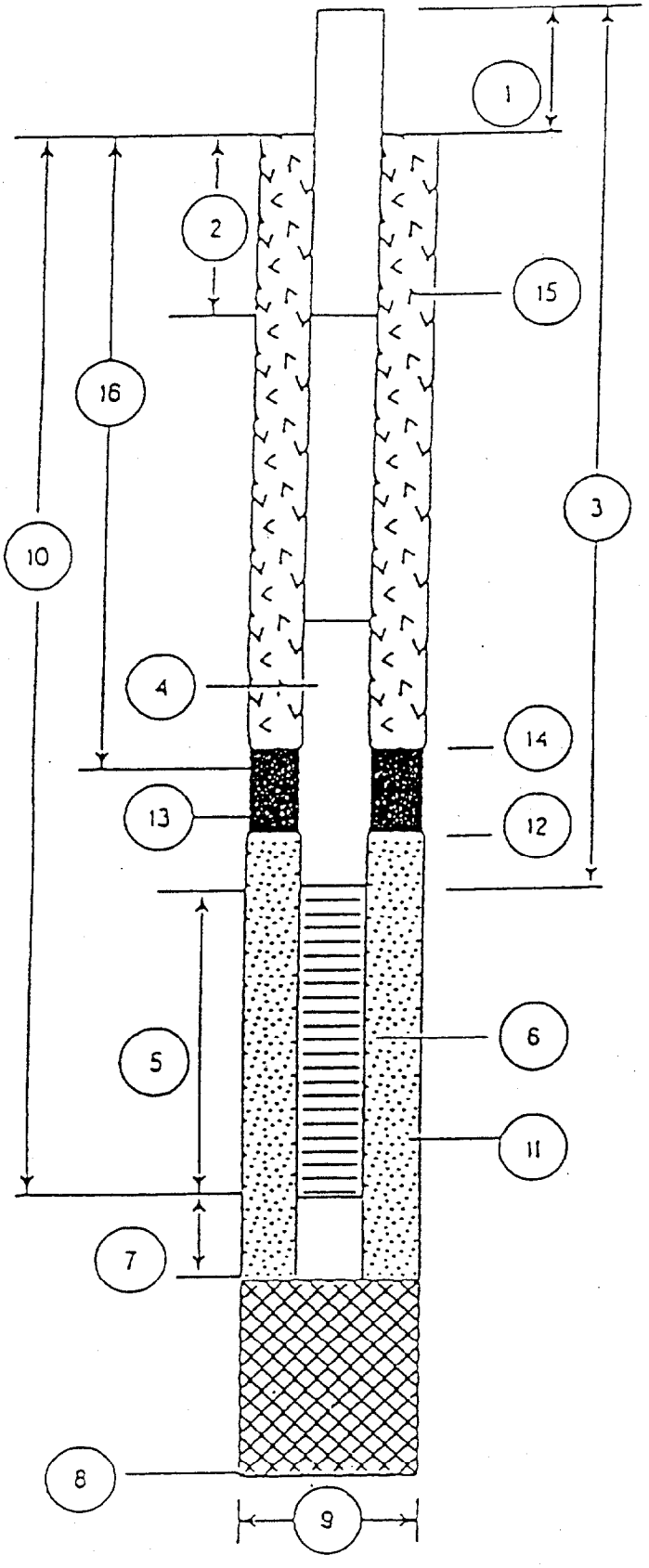
DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

WELL NUMBER: OLD-3502

DATE OF INSTALLATION: 10-7-2



1. Height of Casing above ground: FM
2. Depth to first Coupling: 6'
   Coupling Interval Depths: NA
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4. Type of Riser Pipe: 2" Sched. 40 PVC
5. Length of Screen: 10'
6. Type of Screen: 2" Sched 40 PVC 0.010 Slot
7. Length of Sump: 6"
8. Total Depth of Boring: 16'
9. Diameter of Boring: 10 1/4"
10. Depth to Bottom of Screen: 16'
11. Type of Screen Filter: Silica sand
    Quantity Used: 400 lb Size: 20/3
12. Depth to Top of Filter: 4'
13. Type of Seal: 30/65 Sand
    Quantity Used: 2'
14. Depth to Top of Seal: 2'
15. Type of Grout: NA
    Grout Mixture:
    Method of Placement: ——
16. Tot. Depth of 6 in. Steel Casing: NA

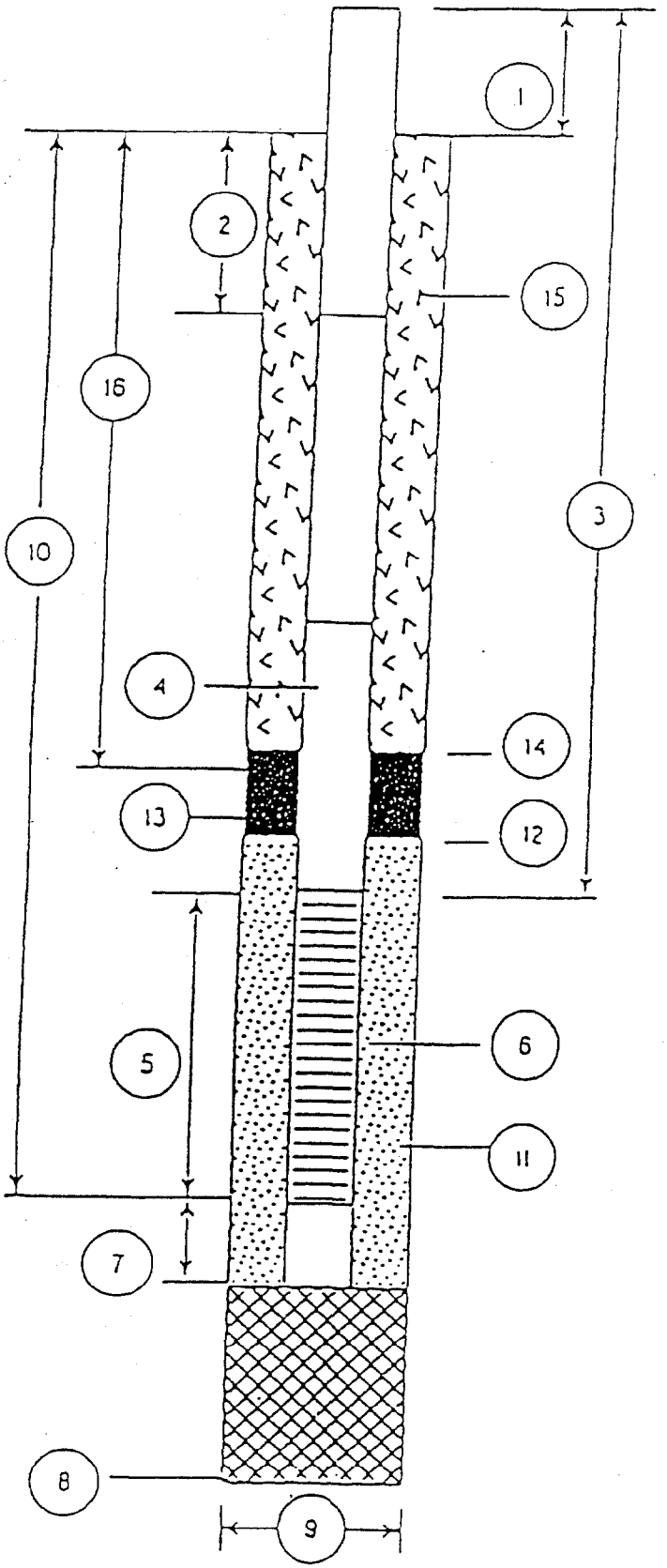
DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

WELL NUMBER: OLD-35-03

DATE OF INSTALLATION: 10-7-93



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   Coupling Interval Depths: NA
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4. Type of Riser Pipe: 2" Sched 40 PVC
5. Length of Screen: 10'
6. Type of Screen: 2" Sched 40 PVC 0.010 Slot
7. Length of Sump: 6"
8. Total Depth of Boring: 16'
9. Diameter of Boring: 10 1/4"
10. Depth to Bottom of Screen: 10'
11. Type of Screen Filter: Silica Sand

    Quantity Used: 500 lb Size: 20/30
12. Depth to Top of Filter: 4'
13. Type of Seal: 30/65 Sand

    Quantity Used: 2'
14. Depth to Top of Seal: 2'
15. Type of Grout: NA

    Grout Mixture:

    Method of Placement: ____
16. Tot. Depth of 6 in. Steel Casing: NA

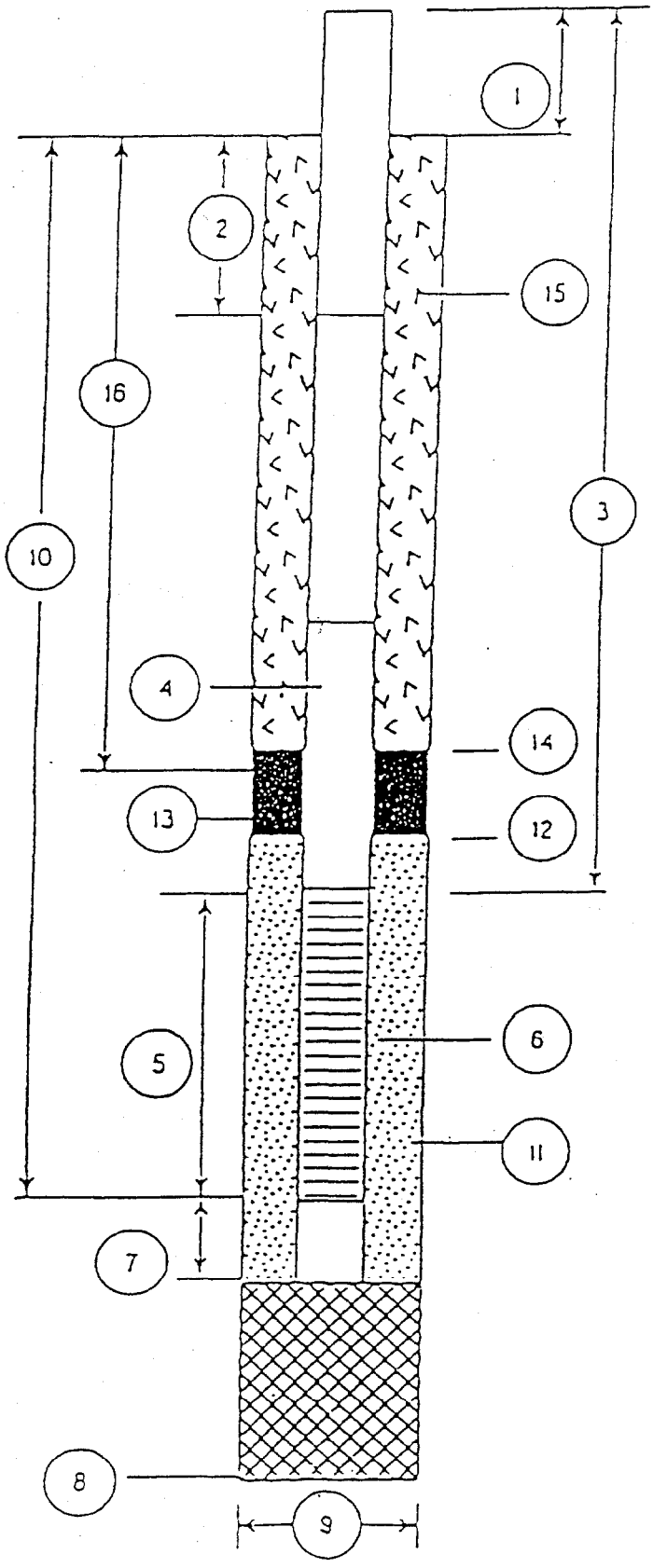
DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

WELL NUMBER: OLD-35-04

DATE OF INSTALLATION: 10-7-92



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   Coupling Interval Depths: NA
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4. Type of Riser Pipe: 2" Sched 40 PVC
5. Length of Screen: 10'
6. Type of Screen: 2" Sched 40 PVC 0.010 Slot
7. Length of Sump: 6"
8. Total Depth of Boring: 16'
9. Diameter of Boring: 10 1/4"
10. Depth to Bottom of Screen: 16'
11. Type of Screen Filter: Silica Sand
    Quantity Used: 450 lb Size: 20/30
12. Depth to Top of Filter: 4'
13. Type of Seal: 30/65 Sand
    Quantity Used: 2'
14. Depth to Top of Seal: 2'
15. Type of Grout: NA
    Grout Mixture:
    Method of Placement: ____
16. Tot. Depth of 6 in. Steel Casing: NA

DEPARTMENT OF THE NAVY

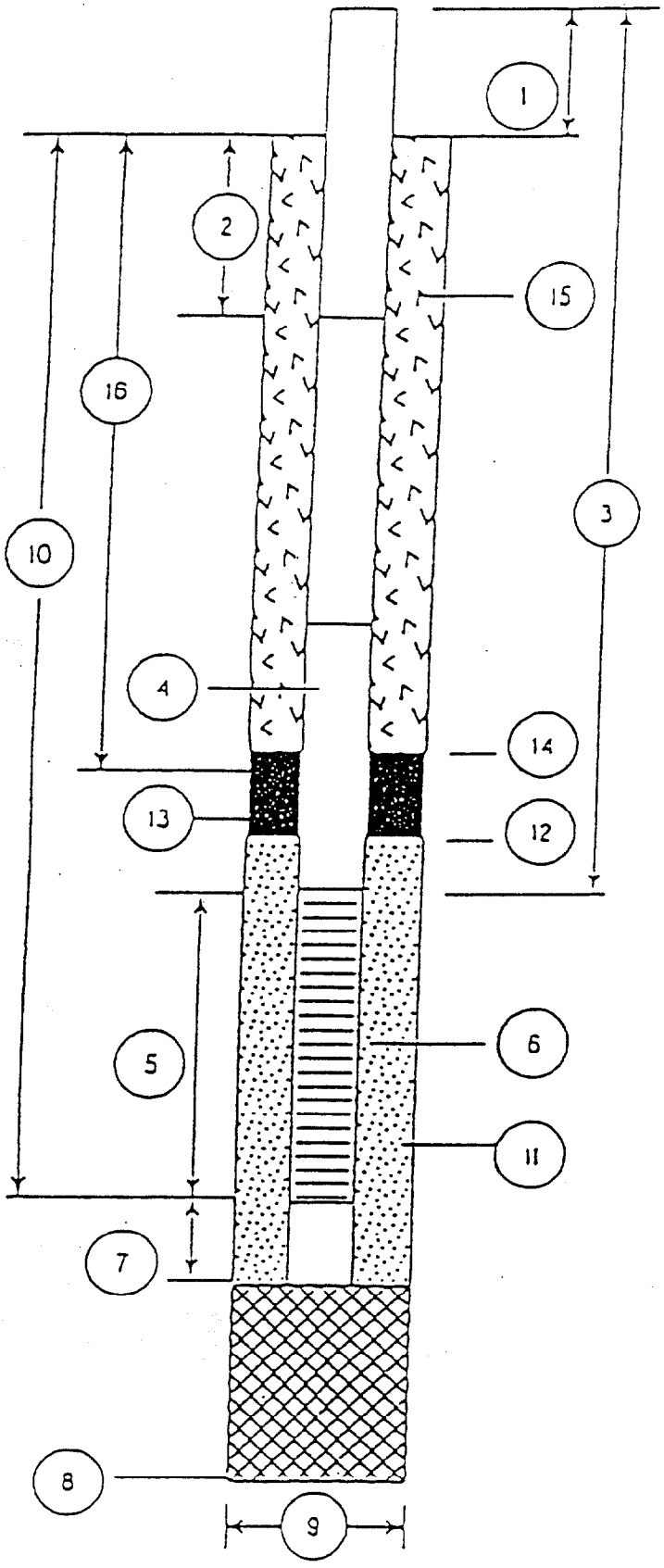
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

Microwell installed in concrete Fl

WELL NUMBER: OLD-35-05

DATE OF INSTALLATION: 3-4.



1. Height of Casing above ground: FM
2. Depth to first Coupling: 2'

   Coupling Interval Depths: 5'
3. Total Length of Riser Pipe: 7'
4. Type of Riser Pipe: 1/2" ID PVC
5. Length of Screen: 6'
6. Type of Screen: 0.010 Slot Pre-Packed
7. Length of Sump: NA
8. Total Depth of Boring: 13'
9. Diameter of Boring: 4"
10. Depth to Bottom of Screen: 13'
11. Type of Screen Filter: Std Sand

    Quantity Used: 20 lb Size: 20/3
12. Depth to Top of Filter: 4'
13. Type of Seal: Cetco med chips

    Quantity Used: NR
14. Depth to Top of Seal: ~~8"~~ 3'
15. Type of Grout: NA

    Grout Mixture:

    Method of Placement: ____
16. Tot. Depth of 6 in. Steel Casing: NA

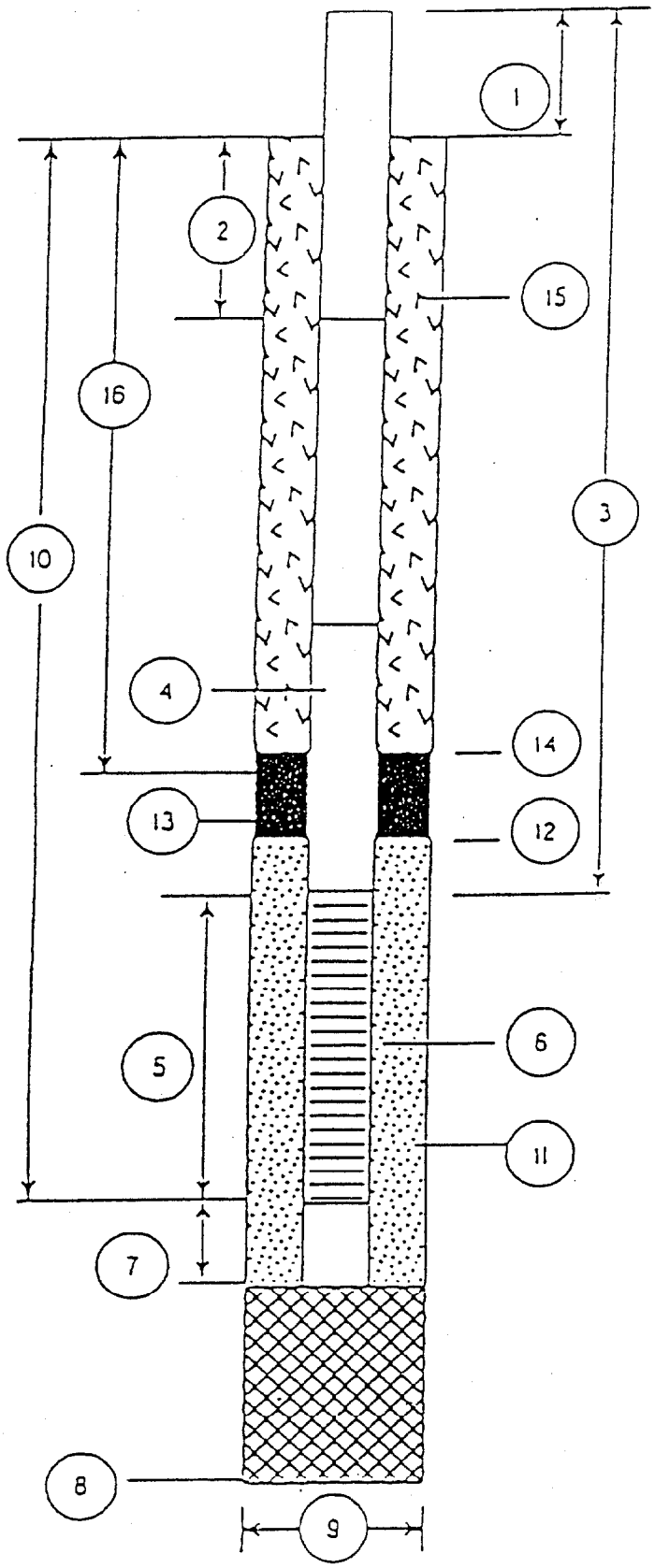
DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

WELL NUMBER: OLD-35-06

DATE OF INSTALLATION: 3-4-18



1. Height of Casing above ground: FM
2. Depth to first Coupling: 2'
   Coupling Interval Depths: 5'
3. Total Length of Riser Pipe: 7'
4. Type of Riser Pipe: 1/2" Sched. 40 PVC
5. Length of Screen: 6'
6. Type of Screen: 0.010 Slot Pre-Packed
7. Length of Sump: NA
8. Total Depth of Boring: 13'
9. Diameter of Boring: 4"
10. Depth to Bottom of Screen: 13'
11. Type of Screen Filter: Std Sand
    Quantity Used: 20/16 Size: 20/30
12. Depth to Top of Filter: 5 1/2'
13. Type of Seal: Cetco Med chips
    Quantity Used: NR
14. Depth to Top of Seal: ~~8"~~ ~~1/2~~ 3'
15. Type of Grout: _____
    Grout Mixture:
    Method of Placement: _____
16. Tot. Depth of 6 in. Steel Casing: NA

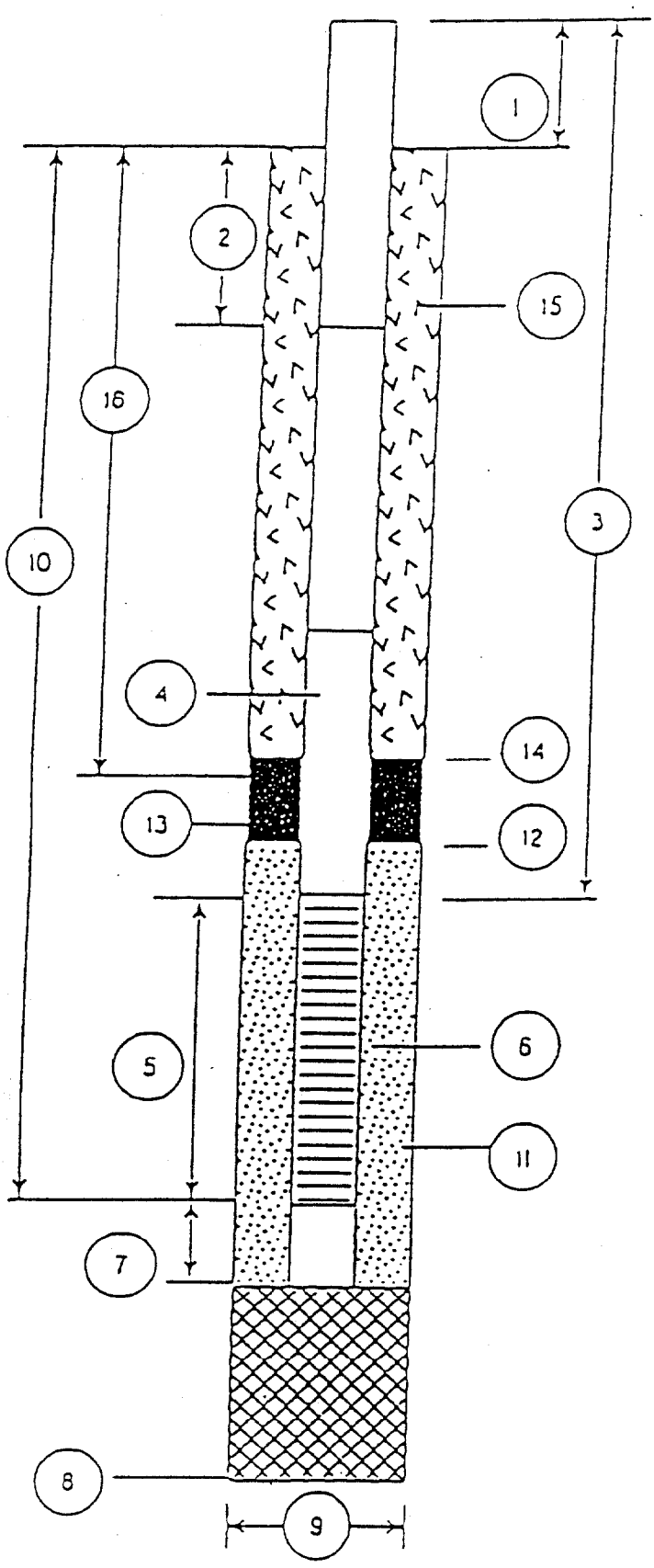
DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

WELL NUMBER: OLD-35-07

DATE OF INSTALLATION: 3-4/9



1. Height of Casing above ground: FM
2. Depth to first Coupling: 5'

   Coupling Interval Depths: NA
3. Total Length of Riser Pipe: 5'
4. Type of Riser Pipe: 1/2" ID PVC
5. Length of Screen: 6'
6. Type of Screen: 0.010 Slot Pre-packed
7. Length of Sump: NA
8. Total Depth of Boring: 11 1/2'
9. Diameter of Boring: 4"
10. Depth to Bottom of Screen: 11 1/2'
11. Type of Screen Filter: Std Sand

    Quantity Used: 20 lb Size: 20/30
12. Depth to Top of Filter: 3'
13. Type of Seal: CETCO Med. chips

    Quantity Used: NR
14. Depth to Top of Seal: ____
15. Type of Grout: ____

    Grout Mixture:

    Method of Placement: ____
16. Tot. Depth of 6 in. Steel Casing: NA

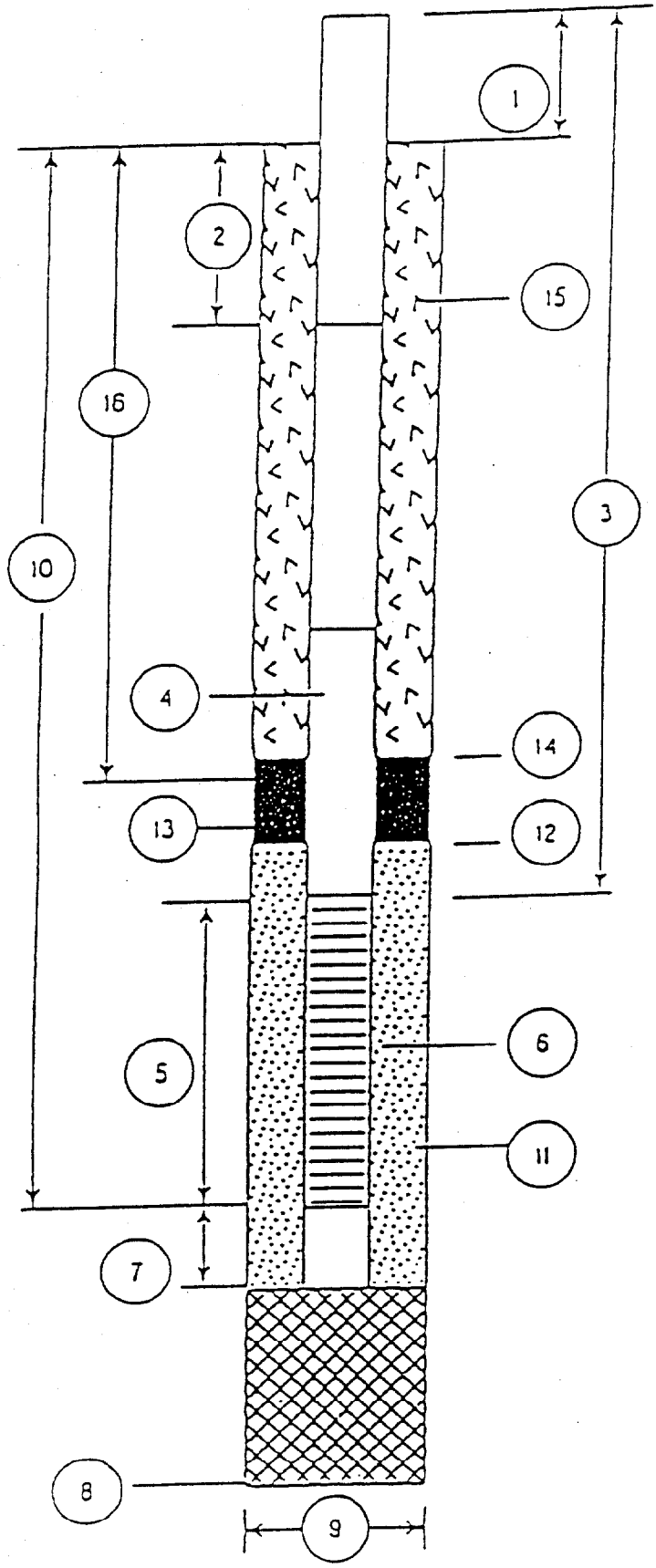
DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

WELL NUMBER: OLD-35-08

DATE OF INSTALLATION: 3-1



1. Height of Casing above ground: FM
2. Depth to first Coupling: 2'
   Coupling Interval Depths: 5'
3. Total Length of Riser Pipe: 7'
4. Type of Riser Pipe: 1/2" Sched 40 PVC
5. Length of Screen: 6' (2x3')
6. Type of Screen: 0.010 Slot Pre-Packed
7. Length of Sump: NA
8. Total Depth of Boring: 13'
9. Diameter of Boring: 4"
10. Depth to Bottom of Screen: 13'
11. Type of Screen Filter: Std Sand
    Quantity Used: 50 lb Size: 3-1/2
12. Depth to Top of Filter: 4'
13. Type of Seal: Cetco med chips
    Quantity Used: NR
14. Depth to Top of Seal: ~~2½'~~ 3'
15. Type of Grout: ———
    Grout Mixture:
    Method of Placement: ———
16. Tot. Depth of 6 in. Steel Casing: NA

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Project Number: 02530.05
Sample Location ID: OLD-35-01
Time: Start: 1308 End: 1435

Point of Interest: SA 35
Date: 11-5/97
Signature of Sampler: William D. Olson

Water Level/Well Data

Well Depth 15.99 ft. — X Measured; ___ Historical

X Top of Well; ___ Top of Protective Casing

Well Riser Stick-up (from ground) FM ft.

Protective Casing/Well Difference NA ft.

Protective Casing NA ft.

Depth to Water 8.31 ft.

Well Material: X PVC; ___ SS

Well Locked?: X Yes; ___ No

Well Dia. X 2 inch; ___ 4 inch; ___ 6 inch

Water Level Equip. Used: X Elect. Cond. Probe; ___ Float Activated; ___ Press. Transducer

Height of Water Column 7.68 ft. X X .16 Gal/ft. (2 in.); ___ .65 Gal/ft. (4 in.); ___ 1.5 Gal/ft. (6 in.); ___ Gal/ft. (___ in.) = 1.2 Gal/Vol; 4 1/2 Total Gal Purged

Well Integrity: Yes / No
Prot. Casing Secure: X / ___
Concrete Collar Intact: X / ___
Other ___: X / ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
X	X	Peristaltic Pump	
		Submersible Pump	
		Bailer	
		PVC/Silicon Tubing	
X	X	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
	X	In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used: (✓ All That Apply at Location)

- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- X Deionized Water
- ___ Liquinox Solution
- ___ Hexane
- ___ HNO_3/D.I. Water Solution
- ___ Potable Water
- ___ None

Field Analysis Data

Ambient Air VOC ϕ ppm Well Mouth ϕ ppm

Field Data Collected: X In-line; ___ In Container

Sample Observations: ___ Turbid; X Clear; ___ Cloudy; ___ Colored; ___ Odor

Purge Data	@ 1 ~~[illegible]~~ Gal.	@ 2 Gal.	@ 3 1/2 Gal.	@ 4 Gal.	@ 4 1/2 Gal.
Temperature, Deg. C	26.0	26.0	26.0	26.0	26.0
pH, units	5.94	6.06	5.94	6.01	5.91
Specific Conductivity	120	120	125	130	125
~~(umhos/cm. @ 25 Deg. C.)~~ NTU	25.5	25.7	14.50	10.97	8.47
~~Oxidation—Reduction, +/-mv~~					
~~Dissolved Oxygen, ppm~~					

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Field Filtered	Preservation Method	Volume Required	✓ If Sample Collected	Sample Bottle IDs
VOA		HCL			/ / /
SVOA		4°C			/ / /
Pest/PCB		4°C			/ / /
Inorganics		HNO_3			/ / /
Explosives		4°C			/ / /
TPH		H_2SO_4			/ / /
TOC		H_2SO_4			/ / /
Nitrate		H_2SO_4			/ / /

Notes:

35H00101 = filtered metals, 0.45u, Fil. Turb = 0.00 NTU

35G00101 = FULL Suite + TPH + TSS

final Turbidity = 5.05 NTU

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Project Number: 02530.05
Sample Location ID: OLD-35-02
Time: Start: 1035 End: 1360

Point of Interest: SA 35
Date: 11-5/97
Signature of Sampler: [illegible]

Water Level/Well Data

Well Depth 15.96 Ft. — X Measured / ___ Historical — X Top of Well / ___ Top of Protective Casing

Well Riser Stick-up (from ground) FM Ft.

Protective Casing/Well Difference NA Ft.

Protective Casing NA Ft.

Depth to Water 8.82 Ft.

Well Material: X PVC / ___ SS

Well Locked?: X Yes / ___ No

Well Dia. X 2 inch / ___ 4 inch / ___ 6 inch

Water Level Equip. Used: X Elect. Cond. Probe / ___ Float Activated / ___ Press. Transducer

Height of Water Column 7.14 Ft. X X .16 Gal/Ft. (2 in.) / ___ .65 Gal/Ft. (4 in.) / ___ 1.5 Gal/Ft. (6 in.) / ___ Gal/Ft. (___ in.) = 1.1 Gal/Vol; 9.5 Total Gal Purged

Well Integrity:

	Yes	No
Prot. Casing Secure	X	
Concrete Collar Intact	X	
Other	X	

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
X	X	Peristaltic Pump	
		Submersible Pump	
		Bailer	
		PVC/Silicon Tubing	
X	X	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
	X	In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used: (✓ All That Apply at Location)

- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- X Deionized Water
- ___ Liquinox Solution
- ___ Hexane
- ___ HNO_3/D.I. Water Solution
- ___ Potable Water
- ___ None

Field Analysis Data

Ambient Air VOC 0 ppm Well Mouth 0 ppm Field Data Collected X In-line / ___ In Container

Sample Observations: ___ Turbid / X Clear / ___ Cloudy / ___ Colored / ___ Odor

Purge Data	@ 5 Gal.	@ 6 1/4 Gal.	@ 7 1/2 Gal.	@ 8 3/4 Gal.	@ 9 1/2 Gal.
Temperature, Deg. C	27.5	27.5	27.5	28.0	28.0
pH, units	5.88	5.88	5.90	5.91	5.88
Specific Conductivity	132	131	130	129	129
~~Turbidity, @ 25 Deg. C, NTU~~	52.7	50.6	38.8	30.6	31.0
~~Oxidation - Reduction, +/- mv~~					
~~Dissolved Oxygen, ppm~~					

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Field Filtered	Preservation Method	Volume Required	✓ If Sample Collected	Sample Bottle IDs
VOA		HCL			/ / /
SVOA		4°C			/ / /
Pest/PCB		4°C			/ / /
Inorganics		HNO_3			/ / /
Explosives		4°C			/ / /
TPH		H_2SO_4			/ / /
TOC		H_2SO_4			/ / /
Nitrate		H_2SO_4			/ / /

Notes:

35H00201 = Filtered Metals, 0.45u, Filtered Turb. = 0.1 NTU

35G00201 = Full suite + TPH + TSS

Final Turbidity = 32.3 NTU

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Point of Interest: SA 35
Project Number: 02530.05
Date: 11-5/97
Sample Location ID: OLD-35-03
Time: Start: 0800 End: 1030
Signature of Sampler: William D. Olson

Water Level/Well Data

Well Depth 15.90 Ft. — X Measured ___ Historical — X Top of Well ___ Top of Protective Casing — Well Riser Stick-up (from ground) NM Ft. — Protective Casing/Well Difference NA Ft. — Protective Casing NA Ft.

Depth to Water 7.71 Ft. — Well Material: X PVC ___ SS — Well Locked?: X Yes ___ No — Well Dia. X 2 inch ___ 4 inch ___ 6 inch — Water Level Equip. Used: X Elect. Cond. Probe ___ Float Activated ___ Press. Transducer

Height of Water Column 8.19 Ft. X X .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__ in.) = 1.3 Gal/Vol; 5 Total Gal Purged

Well Integrity:	Yes	No
Prot. Casing Secure	X	
Concrete Collar Intact	X	
Other	X	

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
X	X	Peristaltic Pump	
		Submersible Pump	
		Bailer	
		PVC/Silicon Tubing	
X	X	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
	X	In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used: (✓ All That Apply at Location)

- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- X Deionized Water
- ___ Liquinox Solution
- ___ Hexane
- ___ HNO_3/D.I. Water Solution
- ___ Potable Water
- ___ None

Field Analysis Data

Ambient Air VOC Ø ppm Well Mouth Ø ppm Field Data Collected X In-line ___ In Container

Sample Observations: ___ Turbid X Clear ___ Cloudy ___ Colored ___ Odor

Purge Data	@ INIT 25.0 Gal.	@ 2 Gal.	@ 3 Gal.	@ 4 1/2 Gal.	@ 5 Gal.
Temperature, Deg. C	~~26.0~~	26.0	26.0	26.5	27.0
pH, units	4.09	4.61	5.44	5.41	5.46
Specific Conductivity	78	81	82	85	83
~~(umhos/cm. @ 25 Deg. C.)~~ NTU	36.3	23.4	3.70	3.00	1.92
~~Oxidation - Reduction, +/- mv~~					
~~Dissolved Oxygen, ppm~~					

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Field Filtered	Preservation Method	Volume Required	✓ If Sample Collected	Sample Bottle IDs
VOA		HCL			/ / /
SVOA		4°C			/ / /
Pest/PCB		4°C			/ / /
Inorganics		HNO_3			/ / /
Explosives		4°C			/ / /
TPH		H_2SO_4			/ / /
TOC		H_2SO_4			/ / /
Nitrate		H_2SO_4			/ / /

Notes:
35H00301 = Filtered Metals, 0.45 µ Filt. Turb. = 0.84 NTU
35G00301 = Full Suite + TPH + TSS
Final Turbidity = 6.08 NTU

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Project Number: 02530.05
Sample Location ID: OLD-35-04
Time: Start: 1442 End: 1615

Point of Interest: SA 35
Date: 11-5/97
Signature of Sampler: William D. Olson

Water Level/Well Data

Well Depth 15.91 Ft. X Measured ___ Historical

X Top of Well ___ Top of Protective Casing

Well Riser Stick-up (from ground) FM Ft.

Protective Casing/Well Difference NA Ft.

Protective Casing NA Ft.

Depth to Water 7.66 Ft.

Well Material: X PVC ___ SS

Well Locked?: X Yes ___ No

Well Dia. X 2 inch ___ 4 inch ___ 6 inch

Water Level Equip. Used: X Elect. Cond. Probe ___ Float Activated ___ Press. Transducer

Height of Water Column 8.25 Ft. X X .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (___ in.) = 1.3 Gal/Vol; 5 Total Gal Purged

Well Integrity:	Yes	No
Prot. Casing Secure	X	
Concrete Collar Intact	X	
Other	X	

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
X	X	Peristaltic Pump	
		Submersible Pump	
		Bailer	
		PVC/Silicon Tubing	
X	X	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
	X	In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used: (✓ All That Apply at Location)

- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- X Deionized Water
- ___ Liquinox Solution
- ___ Hexane
- ___ HNO_3/D.I. Water Solution
- ___ Potable Water
- ___ None

Field Analysis Data

Ambient Air VOC Ø ppm Well Mouth Ø ppm Field Data Collected X In-line ___ In Container

Sample Observations: ___ Turbid X Clear ___ Cloudy ___ Colored ___ Odor

Purge Data	@ INIT Gal.	@ 1 Gal.	@ 2 Gal.	@ 3 Gal.	@ 5 Gal.
Temperature, Deg. C	27.0	26.0	26.0	26.0	26.0
pH, units	5.06	5.03	5.19	5.15	5.12
Specific Conductivity	48	58	65	66	70
~~(umhos/cm. @ 25 Deg. C)~~ NTU	7.54	3.80	2.10	1.48	0.86
~~Oxidation-Reduction, +/- mv~~					
~~Dissolved Oxygen, ppm~~					

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Field Filtered	Preservation Method	Volume Required	✓ If Sample Collected	Sample Bottle IDs
VOA		HCL			/ / /
SVOA		4OC			/ / /
Pest/PCB		4OC			/ / /
Inorganics		HNO_3			/ / /
Explosives		4°C			/ / /
TPH		H_2SO_4			/ / /
TOC		H_2SO_4			/ / /
Nitrate		H_2SO_4			/ / /

Notes:
35H00401 = Filtered Metals, 0.45u, Fil. Turb. = 0.03 NTU
35G00401 = Full Suite + TPH + TSS
Final Turbidity 0.89 NTU

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Project Number: 02530.05
Sample Location ID: OLD-35-05
Time: Start 0900 End: 0945

Point of Interest: SA 35
Date: 3-6-98
Signature of Sampler: [illegible]

Water Level/Well Data

Well Depth 13 ft. — ___ Measured, X Historical

X Top of Well; ___ Top of Protective Casing; ___ ___

Well Riser Stick-up (from ground) FM ft.

Protective Casing/Well Difference ___ ft.

Protective Casing ___ ft.

Depth to Water NR ft.

Well Material: X PVC, X SS, ___

Well Locked?: X Yes, ___ No

Well Dia.: ___ 2 inch, ___ 4 inch, ___ 6 inch, ___ 1/2 inch

Water Level Equip. Used: X Elect. Cond. Probe, ___ Float Activated, ___ Press. Transducer, ___ ___

Height of Water Column NR ft. X ___ .16 Gal/ft. (2 in.), ___ .65 Gal/ft. (4 in.), ___ 1.5 Gal/ft. (6 in.), 0.01 Gal/ft. (___ in.) = ___ Gal/Vol; 1.5 Total Gal Purged

Well Integrity: Yes / No
Prot. Casing Secure: ___ / ___
Concrete Collar Intact: ___ / ___
Other ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
X	X	Peristaltic Pump	
		Submersible Pump	
		Bailer	
		PVC/Silicon Tubing	
X	X	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used: (✓ All That Apply at Location)

- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- X Deionized Water
- ___ Liquinox Solution
- ___ Hexane
- ___ HNO_3/D.I. Water Solution
- ___ Potable Water
- ___ None

Field Analysis Data

Ambient Air VOC ___ ppm Well Mouth ___ ppm

Field Data Collected: ___ In-line, ___ In Container

Sample Observations: ___ Turbid, ___ Colored, ___ Clear, ___ Odor, ___ Cloudy

Purge Data	@ INIT Gal.	@ — Gal.	@ 1/2 Gal.	@ 1.0 Gal.	@ 1.5 Gal.
Temperature, Deg. C	22.6		22.8	22.9	23.0
pH, units	4.71		5.04	5.02	5.06
Specific Conductivity (umhos/cm. @ 25 Deg. C.)	115		105	100	98
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm NTU	41.0		12.74	12.25	6.41

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Field Filtered	Preservation Method	Volume Required	✓ If Sample Collected	Sample Bottle IDs
VOA		HCL			/ / /
SVOA		4°C			/ / /
Pest/PCB		4°C			/ / /
Inorganics		HNO_3			/ / /
Explosives		4°C			/ / /
TPH		H_2SO_4			/ / /
TOC		H_2SO_4			/ / /
Nitrate		H_2SO_4			/ / /

Notes:

35G-00501
2x 1L amber = TCL SVOC
2x 500mL amber w/HCL = TPH
3x 40ml w/HCL = TCL VOC

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLando
Point of Interest: SA 35
Project Number: 02530.05
Date: 3-6/98
Sample Location ID: OLD-35-06
Time: Start 0900 End: 1115
Signature of Sampler: [illegible]

Water Level/Well Data

Well Depth 12.39 Ft. — ___ Measured / X Historical

X Top of Well / ___ Top of Protective Casing / ___ ___

Well Riser Stick-up (from ground) FM Ft.

Protective Casing/Well Difference ___ Ft.

Protective Casing ___ Ft.

Depth to Water NR Ft.

Well Material: X PVC / X SS / ___

Well Locked?: X Yes / ___ No

Well Dia. ___ 2 inch / ___ 4 inch / ___ 6 inch / X 1/2 inch

Water Level Equip. Used: ___ Elect. Cond. Probe / ___ Float Activated / ___ Press. Transducer / ___ ___

Height of Water Column NR Ft. X ___ 16 Gal/Ft. (2 in.) / ___ 65 Gal/Ft. (4 in.) / ___ 1.5 Gal/Ft. (6 in.) / 0.10 Gal/Ft. (___ in.) = [___ Gal/Vol / NR Total Gal Purged]

Well Integrity: Yes / No
Prot. Casing Secure: ✓ / ___
Concrete Collar Intact: ✓ / ___
Other ___ ✓ / ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
X	X	Peristaltic Pump	
___	___	Submersible Pump	
___	___	Bailer	
X	X	PVC/Silicon Tubing	
X	X	Teflon/Silicon Tubing	
___	___	Airlift	
___	___	Hand Pump	
___	___	In-line Filter	
___	___	Press/Vac Filter	

Decontamination Fluids Used:

(✓ All That Apply at Location)
- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- X Deionized Water
- ___ Liquinox Solution
- ___ Hexane
- ___ HNO_3/D.I. Water Solution
- ___ Potable Water
- ___ None
- ___ ___
- ___ ___

Field Analysis Data

Ambient Air VOC ___ ppm Well Mouth ___ ppm

Field Data Collected: ___ In-line / ___ In Container

Sample Observations: ___ Turbid / ___ Clear / ___ Cloudy / ___ Colored / ___ Odor

Purge Data	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.
Temperature, Deg. C	Purged	dry	3	times	
pH, units					
Specific Conductivity (umhos/cm. @ 25 Deg. C.)					
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm					

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Field Filtered	Preservation Method	Volume Required	✓ If Sample Collected	Sample Bottle IDs
VOA	___	HCL	___	___	___/___/___/___
SVOA	___	4°C	___	___	___/___/___/___
Pest/PCB	___	4°C	___	___	___/___/___/___
Inorganics	___	HNO_3	___	___	___/___/___/___
Explosives	___	4°C	___	___	___/___/___/___
TPH	___	H_2SO_4	___	___	___/___/___/___
TOC	___	H_2SO_4	___	___	___/___/___/___
Nitrate	___	H_2SO_4	___	___	___/___/___/___

Notes: ___

35G00601
2 x 1l amber = TCL SVOC
2 x 500ml amber w/HCL = TPH
3 x 40 ml w/HCL = TCL VOC

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Point of Interest: SA35
Project Number: 02530.05
Date: 3-6-98
Sample Location ID: OLD-35-07
Time: Start: 1106 End: 1200
Signature of Sampler: [illegible]

Water Level/Well Data

Well Depth 10.88 Ft. — X Measured / X Historical — X Top of Well / ___ Top of Protective Casing

Well Riser Stick-up (from ground) FM Ft. — Protective Casing/Well Difference ___ Ft. — Protective Casing ___ Ft.

Depth to Water NR Ft.

Well Material: X PVC / X SS

Well Locked?: X Yes / ___ No

Well Dia. ___ 2 inch / ___ 4 inch / ___ 6 inch / X 1/2 inch

Water Level Equip. Used: ___ Elect. Cond. Probe / ___ Float Activated / ___ Press. Transducer

Height of Water Column NR Ft. X ___ 16 Gal/Ft. (2 in.) / ___ 65 Gal/Ft. (4 in.) / ___ 1.5 Gal/Ft. (6 in.) / ___ Gal/Ft. (___ in.) = ___ Gal/Vol; 1 gal Total Gal Purged

Well Integrity: Yes / No
Prot. Casing Secure: ___ / ___
Concrete Collar Intact: ___ / ___
Other ___ / ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
X	X	Peristaltic Pump	
		Submersible Pump	
		Bailer	
		PVC/Silicon Tubing	
X	X	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used: (✓ All That Apply at Location)

- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- X Deionized Water
- ___ Liquinox Solution
- ___ Hexane
- ___ HNO_3/0.1 Water Solution
- ___ Potable Water
- ___ None
- ___ ___
- ___ ___

Field Analysis Data

Ambient Air VOC ___ ppm Well Mouth ___ ppm Field Data Collected ___ In-line / ___ In Container

Sample Observations: ___ Turbid / ___ Colored / ___ Clear / ___ Odor / ___ Cloudy

Purge Data	@ Init Gal.	@ 1/2 gal Gal.	@ 3/4 Gal.	@ 1 Gal.	@ ___ Gal.
Temperature, Deg. C	23.4	23.4	23.4	23.6	
pH, units	5.11	4.98	4.96	5.06	
Specific Conductivity (umhos/cm. @ 25 Deg. C.)	140	130	138	130	
Oxidation - Reduction, +/- mv					
~~Dissolved Oxygen, ppm~~ NTU	2200	16.29	13.73	7.61	

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Field Filtered	Preservation Method	Volume Required	✓ If Sample Collected	Sample Bottle IDs
VOA		HCL			/ / /
SVOA		4°C			/ / /
Pest/PCB		4°C			/ / /
Inorganics		HNO_3			/ / /
Explosives		4°C			/ / /
TPH		H_2SO_4			/ / /
TOC		H_2SO_4			/ / /
Nitrate		H_2SO_4			/ / /

Notes:

35G0070L
2 x 1L amber = TCL SVOC
2 x 500ml amber w/HCL = TPH
3 x 40 ml w/HCL = TCL VOC

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Project Number: 02530.05
Sample Location ID: OLD-35-08
Time: Start 1015 End: 1100

Point of Interest: SA35
Date: 3-6/98
Signature of Sampler: [illegible]

Water Level/Well Data

Well Depth 13 ft. — ___ Measured, X Historical

X Top of Well; ___ Top of Protective Casing; ___ ___

Well Riser Stick-up (from ground) FM ft.

Protective Casing/Well Difference ___ ft.

Protective Casing ___ ft.

Depth to Water NA ft.

Well Material: ___ PVC, ___ SS, ___

Well Locked?: X Yes, ___ No

Well Dia.: ___ 2 inch, ___ 4 inch, ___ 6 inch, ___ 1/2 inch

Water Level Equip. Used: ___ Elect. Cond. Probe, ___ Float Activated, ___ Press. Transducer, ___ ___

Height of Water Column NA ft. X ___ .16 Gal/ft. (2 in.), ___ .65 Gal/ft. (4 in.), ___ 1.5 Gal/ft. (6 in.), ___ Gal/ft. (___ in.) = [___ Gal/Vol; 1.5 Total Gal Purged]

Well Integrity:	Yes	No
Prot. Casing Secure	✓	
Concrete Collar Intact	✓	
Other	✓	

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
X	X	Peristaltic Pump	
		Submersible Pump	
		Bailer	
		PVC/Silicon Tubing	
X	X	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used: (✓ All That Apply at Location)

___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
X Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None

Field Analysis Data

Ambient Air VOC ___ ppm Well Mouth ___ ppm Field Data Collected ___ In-line ___ In Container

Sample Observations: ___ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data	@ Init Gal.	@ 1/4 Gal.	@ 3/4 Gal.	@ 1 Gal.	@ 1.5 Gal.
Temperature, Deg. C	23.1	23.5	23.6	23.7	23.7
pH, units	5.12	4.98	5.06	5.10	5.10
Specific Conductivity (umhos/cm, @ 25 Deg. C.)	125	145	140	138	138
Oxidation - Reduction, +/- mv					
~~Dissolved Oxygen, ppm~~ NTU	3.74	9.84	4.92	4.40	3.87

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Field Filtered	Preservation Method	Volume Required	✓ If Sample Collected	Sample Bottle IDs
VOA		HCL			/ / /
SVOA		4°C			/ / /
Pest/PCB		4°C			/ / /
Inorganics		HNO_3			/ / /
Explosives		4°C			/ / /
TPH		H_2SO_4			/ / /
TOC		H_2SO_4			/ / /
Nitrate		H_2SO_4			/ / /

Notes:

35G00801
2 x 1L amber = TCL SVOC
2 x 500ml amber w/HCL = TPH
3 x 40ml w/HCL = TCL VOC

SOIL BORING LOG

Client: NAVY	Project No. 02530.05		Point of Interest:
			Boring No.: OLD-35-01
			Protection: D
Contractor: GPI	Date Started: 10/7/97		Completed: 10/7/97
Method: Hollow Stem	Casing Size:		PI Meter: Photo FID
Ground Elev.:	Soil Drilled:		Total Depth: 16 ft
Logged by: J. Nash	Checked by:		▽ Below Ground:
Screen: 10 (ft.)	Riser: 6 (ft.)	Diam: 2 in (ID)	Material: PVC	Page 1 of: 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	CLP/SCREENING	RECOVERY	PID (ppm)	SOIL/ROCK DESCRIPTION	SOIL CLASS	BLOWS/6-IN.	WELL DATA	LITHOLOGY	ELEVATION (FT.)
				PH	Ø	SAND, fine grained, gray, dry	SP				
5				100%	Ø	– dk. brown, dense		2 2 2 / 2 2 2 / 3 5 5			
				95%	Ø			10 10 7 / 10 10 7			
10				95%	Ø	– organic rich, wet, loose sand		5 5 4 / 5 5 3			
				100%	Ø			3 3 6 / 5 5 5			
				100%	Ø			23 23 30 / 7 7 36			
15				80%	Ø	– very dense		50/4			
20											

PROPORTIONS	(-) AMOUNT (+)	ABBREVIATIONS		
Trace (tr)	0-10%	f = fine	gr = gray	MS = Split Spoon
Little (li)	10-20%	m = medium	bn = brown	BW = Screened Auger
Some (so)	20-35%	c = coarse	blk = black	HP = Hydropunch
and	35-50%			

SOIL BORING LOG

Client: NAVY	Project No. 02530.05	Point of Interest:	
Contractor: GPI	Date Started: 10/7/97	Boring No.: OLD-35-02	
Method: Hollow Stem	Casing Size:	Protection: D	
Ground Elev.:	Soil Drilled:	Completed: 10/7/97	
Logged by: J. Nash	Checked by:	PI Meter: Porta FID	
Screen: 10 (ft.)	Riser: 6 (ft.)	Diam: 2 in (ID)	Material: PVC
		Total Depth: 16 ft	
		▽ Below Ground:	
		Page 1 of: 1	

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	CLP/SCREENING	RECOVERY	PID (ppm)	SOIL/ROCK DESCRIPTION	SOIL CLASS	BLOWS/6-IN.	WELL DATA	LITHOLOGY	ELEVATION (FT.)
				PH	Ø	SAND, fine grained, gray, dry	SP				
						– brown		3 4			
5				90%		– dk. brown – black		8 7			
				80%		– dense, wet		5 6			
								6 7			
				90%				13 25			
10								27 54			
				100%				41 45			
						– cemented layer		48 50			
				95%				21 34			
								47 34			
15				90%		– reddish brown, semi cemented		23 28			
								21 34			
20											

PROPORTIONS	(-) AMOUNT (+)	ABBREVIATIONS		
Trace (tr)	0-10%	f = fine	gr = gray	MS = Split Spoon
Little (li)	10-20%	m = medium	bn = brown	BW = Screened Auger
Some (so)	20-35%	c = coarse	blk = black	HP = Hydropunch
and	35-50%			

SOIL BORING LOG

Point of Interest:			
Boring No.: OLD-35-03			
Client: NAVY	Project No. 02530.05	Protection: D	
Contractor: GPI	Date Started: 10/7/97	Completed: 10/7/97	
Method: Hollow Stem	Casing Size:	PI Meter: Porta FID	
Ground Elev.:	Soil Drilled:	Total Depth: 16 ft	
Logged by: J. Nash	Checked by:	▽ Below Ground:	
Screen: 10 (ft.)	Riser: 6 (ft.)	Diam: 2in (ID)	Material: PVC	Page 1 of: 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	CLP/SCREENING	RECOVERY	PID (ppm)	SOIL/ROCK DESCRIPTION	SOIL CLASS	BLOWS/6-IN.	WELL DATA	LITHOLOGY	ELEVATION (FT.)
				PH	Ø	SAND, fine grained, gray, dry	SP				
						– brown		4 8			
5				100%		– dk. brown, dense		6 7			
				95%		– wet		5 20			
								3 14			
				50%				50 +1			
10								50 +1			
				95%				21 27			
								28 39			
				100%		SAND, fine-medium, reddish brown dense	SP	15 19			
								25 50			
15				100%	✓			9 37			
								36 36			
20											

PROPORTIONS	(-) AMOUNT (+)	ABBREVIATIONS		
Trace (tr)	0-10%	f = fine	gr = gray	MS = Split Spoon
Little (li)	10-20%	m = medium	bn = brown	BW = Screened Auger
Some (so)	20-35%	c = coarse	blk = black	HP = Hydropunch
and	35-50%			

SOIL BORING LOG

Client: NAVY	Project No. 02530.05	Point of Interest:	
Contractor: GPI	Date Started: 10/7/97	Boring No.: OLD-35-04	
Method: Hollow Stem	Casing Size:	Protection: D	
Ground Elev.:	Soil Drilled:	Completed: 10/7/97	
Logged by: J. Nash	Checked by:	PI Meter: Porta FID	
Screen: 10 (ft.)	Riser: 6 (ft.)	Diam: 2in (ID)	Material: PVC
		Total Depth: 16 ft	
		▽ Below Ground:	
		Page 1 of: 1	

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	CLP/SCREENING	RECOVERY	PID (ppm)	SOIL/ROCK DESCRIPTION	SOIL CLASS	BLOWS/6-IN.	WELL DATA	LITHOLOGY	ELEVATION (FT.)
				PH	0	SAND, fine grained, gray, dry	SP				
						– brown					
5				85%		– dk brown – black					
				90%							
				45%		– dense					
10				90%							
						– dk brown					
				95%							
15				100%		SAND, fine-medium, reddish brown	SP				
20											

PROPORTIONS	(-) AMOUNT (+)	ABBREVIATIONS		
Trace (tr)	0-10%	f = fine	gr = gray	MS = Split Spoon
Little (li)	10-20%	m = medium	bn = brown	BW = Screened Auger
Some (so)	20-35%	c = coarse	blk = black	HP = Hydropunch
and	35-50%			

APPENDIX B

POSITIVE DETECTIONS TABLES

Table B-1 Summary of Positive Detections in Surface Soil Analytical Results
Table B-2 Summary of Positive Detections in Subsurface Soil Analytical Results
Table B-3 Summary of Positive Detections in Lift Pit Soil Analytical Results
Table B-4 Summary of Positive Detections in Groundwater Analytical Results
Table B-5 Summary of Positive Detections in Groundwater Analytical Results - Lift Pit Microwells
Table B-6 Summary of Positive Detections in Surface Soil Analytical Results– Confirmation Sampling, April and June 2000

TABLE B-1

SUMMARY OF POSITIVE DETECTIONS IN SURFACE SOIL ANALYTICAL RESULTS

Appendix B
Table B-1. Summary of Positive Detections in Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	Background	FDEP SCTL	RBC for Residential Soil		RBC for Industrial Soil		35S00101	35S00201	35S00301	35S00301D	35S00401	35S00501
Sampling Date							31-Oct-97	31-Oct-97	31-Oct-97	31-Oct-97	10-Nov-97	10-Nov-97
Semivolatile Organics, ug/kg												
Acenaphthylene		1,100,000	2,300,000	n	61,000,000	n						13 J
Anthracene		19,000,000	23000000	n	610000000	n		13 J				12 J
Benzo(a)anthracene		1,400	880	c	7,800	c						18 J
Benzo(a)pyrene		100	88	c	780	c						22 J
Benzo(b)fluoranthene		1,400	880	c	7,800	c						28 J
Benzo(g,h,i)perylene		2,300,000	2300000	n	61,000,000	n						24 J
Benzo(k)fluoranthene		15,000	8,800	c	78,000	c						25 J
Chrysene		140,000	88,000	c	780,000	c		100 J				31 J
Fluoranthene		2,800,000	3,100,000	n	82,000,000	n		10 J				43 J
Indeno(1,2,3-cd)pyrene		1,500	880	c	7,800	c						13 J
Phenanthrene		1,900,000	2,300,000	n	61,000,000	n						16 J
Pyrene		2,200,000	2,300,000	n	61,000,000	n		66 J				46 J
Pesticides/PCBs, ug/kg												
4,4'-DDD		4,500	2,700	c	24,000	c		290 D			0.13 J	12 J
4,4'-DDE		3,200	1,900	c	17,000	c		46	1.3 J	1.3 J	3.1 J	8.3 J
4,4'-DDT		3,200	1,900	c	17,000	c			1.3 J	1.5 J	2.9 J	11 J
Aldrin		60	38	c	340	c						
alpha-BHC		200	100	c	910	c		2.2 J				
alpha-Chlordane		3,000	490	c	4,400	c		8.2				35 D
Aroclor-1254		600	ND		ND							
Aroclor-1260		600	ND		ND			150 J				210 J
beta-BHC		600	350	c	3,200	c						
delta-BHC		22,000	350	c	3,200	c		4.9				0.6 J
Dieldrin		70	40	c	360	c						3.7 J
Endosulfan sulfate		ND	ND		ND			2.5 J				
gamma-BHC (Lindane)		600	490	c	4,400	c						1 J
gamma-Chlordane		3,000	490	c	4,400	c	0.08 J	11				47 D
Heptachlor		10	140	c	1,300	c	0.09 J		0.06 J			
Heptachlor epoxide		100	70	c	630	c		1.7 J				1.6 J
Methoxychlor		380,000	390,000	n	10,000,000	n	2.2 J		1.4 J	1.2 J	0.94 J	

Appendix B
Table B-1. Summary of Positive Detections in Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	Background	FDEP SCTL	RBC for Residential Soil	RBC for Industrial Soil	35S00101	35S00201	35S00301	35S00301D	35S00401	35S00501
Sampling Date					31-Oct-97	31-Oct-97	31-Oct-97	31-Oct-97	10-Nov-97	10-Nov-97
Inorganics, mg/kg										
Aluminum	2088	72000	78,000 n	1,000,000 n	1400 J	1650 J	309 J	240 J	1390	1330
Antimony	ND	26	31 n	820 n						1.5 J
Arsenic	1.0	0.8	0.43 /23 c/n	3.8 c/610 c/n	**1.4** J	**1.3** J	0.89 J	**1.1** J		**3.2**
Barium	8.7	105	5,500 n	140,000 n		75.2 J				99.4
Beryllium	ND	120	0.15 c	1 c		0.1 J				0.13 J
Cadmium	0.98	75	39 n	1,000 n						1.1
Calcium	25295	ND	1000000	1000000	27900	13500	16400 J	4620 J		48500
Chromium	5	290	390 n	10,000 n	3.4	4.4	1.6 J	1.5 J	3.1	207
Cobalt	ND	4700	4,700 n	120,000 n	0.72 J	0.66 J	0.58 J	0.7 J		1.7 J
Copper	4.1	105	270,000 n	1,000,000 n		6	0.74 J			36.7
Iron	712	23,000	23,000 n	610,000 n	485	703 J	47.3 J	36.3 J	105	1320
Lead	14.5	500	400	400	1.6 J	47.6 J	1.3 J	1 J	12.8	**1240**
Magnesium	328	ND	460,468	460,468		584 J	192 J	62.1 J		
Manganese	8.1	1600	1,800 n	47,000 n	4.1	30.2	6 J			42.4
Mercury	0.07	3.7	23 n	610 n				0.03 J	0.03 J	0.06
Nickel	4.4	105	1,600 n	41,000 n						2.1 J
Potassium	210	ND	1,000,000	1,000,000		114 J				
Selenium	1.1	390	390 n	10,000 n		0.63 J	0.55 J	0.57 J		
Silver	ND	390	390 n	10,000 n	0.91 J		0.83 J	0.8 J		
Sodium	ND	ND	100,000	1,000,000						
Thallium	2	ND	ND	ND				2 J		
Vanadium	3.1	15	550 n	14,000 n	1.2 J	1.1 J	1.2 J		0.46 J	3.3 J
Zinc	17.2	23000	23,000 n	610,000 n		16.8 J				125
General Chemistry										
pH, units	ND	ND	ND	ND						8
TRPH, mg/kg	ND	350	ND	ND	42	**7200**	140		11	**1500**

Appendix B
Table B-1. Summary of Positive Detections in Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	Background	FDEP SCTL	RBC for Residential Soil	RBC for Industrial Soil	35S00601	35S00701	35S00801	35S00901	35S01001	35S01101
Sampling Date					10-Nov-97	10-Nov-97	10-Nov-97	10-Nov-97	10-Nov-97	10-Nov-97
Semivolatile Organics, ug/kg										
Acenaphthylene		1,100,000	2,300,000 n	61,000,000 n	26 J					
Anthracene		19,000,000	23000000 n	610000000 n						
Benzo(a)anthracene		1,400	880 c	7,800 c	31 J					24 J
Benzo(a)pyrene		100	88 c	780 c	62 J					41 J
Benzo(b)fluoranthene		1,400	880 c	7,800 c	90 J					56 J
Benzo(g,h,i)perylene		2,300,000	2300000 n	61,000,000 n						
Benzo(k)fluoranthene		15,000	8,800 c	78,000 c	79 J					50 J
Chrysene		140,000	88,000 c	780,000 c	80 J			13 J		58 J
Fluoranthene		2,800,000	3,100,000 n	82,000,000 n	96 J			15 J	44 J	80 J
Indeno(1,2,3-cd)pyrene		1,500	880 c	7,800 c						
Phenanthrene		1,900,000	2,300,000 n	61,000,000 n	25 J			6 J	30 J	20 J
Pyrene		2,200,000	2,300,000 n	61,000,000 n	68 J			19 J	31 J	56 J
Pesticides/PCBs, ug/kg										
4,4'-DDD		4,500	2,700 c	24,000 c	0.65 J			0.86 J	2.4 J	3.1 J
4,4'-DDE		3,200	1,900 c	17,000 c	5.5 J		2.4 J	84 D	71 D	36 J
4,4'-DDT		3,200	1,900 c	17,000 c	8.3	0.31 J	5.2 J	20	77 DJ	54 J
Aldrin		60	38 c	340 c	0.28 J	0.14 J				0.75 J
alpha-BHC		200	100 c	910 c						
alpha-Chlordane		3,000	490 c	4,400 c		0.12 J	0.67 J	0.82 J	14 J	6.2 J
Aroclor-1254		600	ND	ND			21 J			51 J
Aroclor-1260		600	ND	ND			25 J		110 J	100 J
beta-BHC		600	350 c	3,200 c	0.56 J		0.08 J		0.61 J	0.79 J
delta-BHC		22,000	350 c	3,200 c						
Dieldrin		70	40 c	360 c	0.12 J				2.6 J	
Endosulfan sulfate		ND	ND	ND					5.4 J	15 J
gamma-BHC (Lindane)		600	490 c	4,400 c					0.24 J	0.2 J
gamma-Chlordane		3,000	490 c	4,400 c	2.6		1.3 J	0.71 J	9.9 J	6.7 J
Heptachlor		10	140 c	1,300 c						
Heptachlor epoxide		100	70 c	630 c	0.42 J				1.1 J	
Methoxychlor		380,000	390,000 n	10,000,000 n	7.3 J	2.1 J		2.1 J		

Appendix B
Table B-1. Summary of Positive Detections in Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	Background	FDEP SCTL	RBC for Residential Soil		RBC for Industrial Soil		35S00601		35S00701		35S00801		35S00901		35S01001		35S01101	
Sampling Date							10-Nov-97		10-Nov-97		10-Nov-97		10-Nov-97		10-Nov-97		10-Nov-97	
Inorganics, mg/kg																		
Aluminum	2088	72000	78,000	n	1,000,000	n	2540		1360		930		2110		2130		2010	
Antimony	ND	26	31	n	820	n					0.98	J						
Arsenic	1.0	0.8	0.43 /23	c/n	3.8 c/610	c/n			4.8		2.2	J	1.1	J				
Barium	8.7	105	5,500	n	140,000	n	8.5	J	13.9	J	163		9.3	J	27.3	J	56.6	
Beryllium	ND	120	0.15	c	1	c	0.08	J			0.14	J	0.06	J	0.06	J	0.09	J
Cadmium	0.98	75	39	n	1,000	n	0.23	J	0.23	J	4.3		0.57	J	0.51	J	0.36	J
Calcium	25295	ND	1000000		1000000		6400				144000		2830				8280	
Chromium	5	290	390	n	10,000	n	4.2				18.2		6.3		41.2		78.2	
Cobalt	ND	4700	4,700	n	120,000	n					0.58	J	0.39	J	2.3	J	2.1	J
Copper	4.1	105	270,000	n	1,000,000	n					41.2				7.4		9.4	
Iron	712	23,000	23,000	n	610,000	n	722		531		1220		752		1230		1040	
Lead	14.5	500	400		400		25.8		5		102		144		203		386	
Magnesium	328	ND	460,468		460,468													
Manganese	8.1	1600	1,800	n	47,000	n	14.9				77.2		10.6		25.8		28.5	
Mercury	0.07	3.7	23	n	610	n			0.09		1.1				0.95		0.21	
Nickel	4.4	105	1,600	n	41,000	n	0.61	J	0.65	J	4.6	J	0.96	J	1.4	J	1.3	J
Potassium	210	ND	1,000,000		1,000,000													
Selenium	1.1	390	390	n	10,000	n												
Silver	ND	390	390	n	10,000	n					0.66	J						
Sodium	ND	ND	100,000		1,000,000				14	J								
Thallium	2	ND	ND		ND													
Vanadium	3.1	15	550	n	14,000	n	1.5	J	0.73	J	5.7	J	1.6	J	2.5	J	2	J
Zinc	17.2	23000	23,000	n	610,000	n					197		229		227		124	
General Chemistry																		
pH, units	ND	ND	ND		ND													
TRPH, mg/kg	ND	350	ND		ND		43		48		91		16		230		110	

Appendix B
Table B-1. Notes for Summary of Positive Detections in
Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

NOTES:

The background screening value is twice the average of detected concentrations for inorganic analytes.
SCTL = Florida Department of Environmental Protection, Soil Cleanup Target Levels, Chapter 62-777 FAC, May 26, 1999.
Values indicated are for direct exposure scenario. Value for chromium is for chromium (IV).
Value for mercury is for inorganic mercury.
RBC = Risk-Based Concentration Table, USEPA Region III, May 1996, R.L. Smith. RBC for chromium is based on chromium VI. RBC for lead is not available; value is Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites (OSWER directive 9355-4-12). For essential nutrients (calcium, magnesium, sodium, potassium) screening values were derived based on recommended daily allowances.
RBC for benzo(g,h,i)perylene and phenanthrene are not available, value is based on pyrene.
n = noncarcinogenic pathway
c = carcinogenic pathway
ND = Not determined.
bls = below land surface
PCB = polychlorinated biphenyl.
OSWER = Office of Solid Waste and Emergency Response.
USEPA = U.S. Environmental Protection Agency.
DDD = Dichlorodiphenyldichloroethane
DDE = Dichlorodiphenyldichloroethene
DDT = Dichlorodiphenyltrichloroethane
D = Indicates value was determined during a diluted reanalysis.
J = Reported concentration is an estimated quantity.
All inorganics results expressed in milligrams per kilogram (mg/kg) soil dry weight; organics in micrograms per kilogram (ug/kg) soil dry weight.
Bold/shaded values indicate exceedance of regulatory guidance and background.

mg/kg = milligrams per kilogram.
ug/kg = micrograms per kilogram.

TABLE B-2

SUMMARY OF POSITIVE DETECTIONS IN SUBSURFACE SOIL ANALYTICAL RESULTS

Appendix B
Table B-2. Summary of Positive Detections in Subsurface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

	Background Screening	SCTL Leaching	RBC for Residential Soil	RBC for Industrial Soil	35B00101	35B00201	35B00301	35B00401	35B00501
					31-Oct-97	31-Oct-97	31-Oct-97	10-Nov-97	10-Nov-97
Depth bls (ft)					4.5-6.5	5.5-7.5	5.5-7.5	6.0-8.0	6.0-8.0
Semivolatile Organics, ug/kg									
Diethylphthalate		2,900						48 J	
Pesticides/PCBs, ug/kg									
4,4'-DDD		200	2,700 c	24,000 c		0.29 J			
4,4'-DDE		300	1,900 c	17,000 c	0.2 J			0.62 J	
4,4'-DDT		2,700	1,900 c	17,000 c	0.16 J			0.86 J	
alpha-Chlordane		4,100	490 c	4,400 c					0.23 J
delta-BHC		200	350 c	3,200 c		0.1 J			
Dieldrin		5	40 c	360 c	0.23 J				
gamma-BHC (Lindane)		10	490 c	4,400 c					0.08 J
gamma-Chlordane		4,100	490 c	4,400 c	0.11 J				
Heptachlor		200	140 c	1,300 c	0.07 J				
Methoxychlor		130,000	390,000 n	10,000,000 n	0.59 J				0.51 J
Inorganics, mg/kg									
Aluminum	2,119	NC	78,000 n	1,000,000 n	5290 J	3420 J	4640 J	3760	2910
Arsenic	1.1	29	0.43 /23 c/n	3.8 c/610 c/n	1.3 J	1.5 J	1.3 J		
Barium	3.6	1,600	5,500 n	140,000 n			24.6 J		
Beryllium	ND	63	0.15 c	1.3 c	0.07 J	0.06 J	0.08 J	0.06 J	0.05 J
Calcium	115	ND	1000000	1000000	4320	205 J	176 J		
Chromium	4	38	390 n	10,000 n	10.1	12.1	9.3	8.5	10.2
Cobalt	2	NC	4,700 n	120,000 n	0.64 J	0.78 J	0.53 J		
Copper	ND	NC	270,000 n	1,000,000 n		1 J	0.99 J		
Iron	264	NC	23,000 n	610,000 n	201 J	51.6 J	41.6 J	37.5	69
Lead	3.9	NC	400	400	6.3 J	11.5 J	3 J	14.2	5.7
Magnesium	32.8	ND	460,468	460,468	48.9 J	25.4 J	15.2 J		
Mercury	ND	2.1	23 n	610 n	0.09	0.09	0.05 J	0.16	0.15
Nickel	ND	130	1,600 n	41,000 n	20.9				
Selenium	1.3	5	390 n	10,000 n	1.3		0.94 J		
Silver	ND	34	390 n	10,000 n	0.69 J	1.1 J			
Vanadium	3.4	6,000	550 n	14,000 n	1.4 J	0.87 J	1.1 J	0.54 J	0.43 J
General Chemistry, mg/kg									
TRPH	ND	340	ND	ND	110	15	11	11	18

Appendix B

Table B-2. Summary of Positive Detections in Subsurface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

NOTES:

The background screening value is twice the average of detected concentrations for inorganic analytes.

SCTL = Florida Department of Environmental Protection, Soil Cleanup Target Levels, Chapter 62-777 FAC, May 26, 1999.
Values indicated are for leaching to groundwater scenario. Value for chromium is for chromium (IV).
Value for mercury is for inorganic mercury.

RBC = Risk-Based Concentration Table, USEPA Region III, May 1996, R.L. Smith. RBC for chromium is based on chromium VI. RBC for lead is not available; value is Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites (OSWER directive 9355-4-12). For essential nutrients (calcium, magnesium, sodium, potassium) screening values were derived based on recommended daily allowances.

n = noncarcinogenic pathway
c = carcinogenic pathway
NA = Not applicable (for SCTLs) or not analyzed (for analytical entries).
ND = Not determined.
NC = Not calculated. Requires SPLP/TCLP test to calculate site specific leaching SCTL.
mg/kg = milligrams per kilogram.
ug/kg = micrograms per kilogram.
OSWER = Office of Solid Waste and Emergency Response.
USEPA = U.S. Environmental Protection Agency.
J = Reported concentration is an estimated quantity.
All inorganics results expressed in milligrams per kilogram (mg/kg) soil dry weight; organics in micrograms per kilogram (ug/kg) soil dry weight.

TABLE B-3

SUMMARY OF POSITIVE DETECTIONS IN LIFT PIT SOIL ANALYTICAL RESULTS

Appendix B
Table B-3. Summary of Positive Detections in Lift Pit Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID / Sampling Date	Background	FDEP SCTL	RBC for Residential Soil	RBC for Industrial Soil	35S01301 20-Nov-97	35S01401 20-Nov-97	35S01501 20-Nov-97	35S01601 20-Nov-97
Volatile Organics, ug/kg								
2-Butanone		4800000	700,000 n	41,000,000 n		42		
Acetone		770000	7,800,000 n	200,000,000 n		120		
Tetrachloroethene		10,000	12,000 c	110,000 c			11 J	
Toluene		300,000	160,000,000 n	410,000,000 n				4 J
Semivolatile Organics, ug/kg								
2-Methylnaphthalene		1,500,000	3,100,000 n	82,000,000 n		590 J		
bis(2-Ethylhexyl)phthalate		75,000	46,000 c	410,000 c	410			
Naphthalene		1,000,000	3,100,000 n	82,000,000 n		140 J		
Pesticides/PCBs, ug/kg								
4,4'-DDD		4,500	2,700 c	24,000 c	14 J			6.5 J
4,4'-DDE		3,200	1,900 c	17,000 c	29 J	25 J	51 DJ	46 J
Aldrin		60	38 c	340 c		1.7 J	1.5 J	1.2 J
alpha-Chlordane		3,000	490 c	4,400 c	4.8 J		5 J	1.9 J
beta-BHC		600	350 c	3,200 c	1.2 J	5.5 J	4.8 J	19 J
delta-BHC		22,000	350 c	3,200 c		2 J		
Dieldrin		70	40 c	360 c		0.96 J		
Endosulfan sulfate		ND	ND	ND	4.3 J			
Endrin		21,000	23,000 n	610,000 n		0.59 J	1.7 J	1.6 J
Endrin aldehyde		ND	ND	ND		2 J		
Endrin ketone		ND	ND	ND			2 J	
gamma-BHC (Lindane)		600	490 c	4,400 c				
gamma-Chlordane		3,000	490 c	4,400 c	9 J		16 J	6.7 J
Heptachlor		10	140 c	1,300 c		20 J		
Heptachlor epoxide		100	70 c	630 c	1.6 J			
Methoxychlor		380,000	390,000 n	10,000,000 n	6.9 J	7.8 J	19 J	2.5 J
Inorganics, mg/kg								
Aluminum	2088	72000	78,000 n	1,000,000 n	12600	11000	10400	4380
Antimony	ND	26	31 n	820 n	0.87 J		0.97 J	0.92 J
Arsenic	1.0	0.8	0.43 /23 c/n	3.8 c/610 c/n	6	1 J	2.2 J	
Barium	8.7	105	5,500 n	140,000 n	157 J	8.1 J	205 J	17.2 J
Cadmium	0.98	75	39 n	1,000 n	1.7	0.29 J	1.7	0.18 J
Calcium	25295	ND	1000000	1000000	9870 J	2060 J	5600 J	15400 J
Chromium	5	290	390 n	10,000 n	57.7 J	16.2 J	92.3 J	9.3 J
Cobalt	ND	4700	4,700 n	120,000 n	1.4 J	0.28 J	1.3 J	0.5 J
Copper	4.1	105	270,000 n	1,000,000 n	28.2 J	13.7 J	46.9 J	11 J
Iron	712	23,000	23,000 n	610,000 n	4180 J	330 J	4720 J	1070 J

Appendix B
Table B-3. Summary of Positive Detections in Lift Pit Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	Background		FDEP SCTL		RBC for Residential Soil		RBC for Industrial Soil		35S01301		35S01401		35S01501		35S01601	
Sampling Date									20-Nov-97		20-Nov-97		20-Nov-97		20-Nov-97	
Lead	14.5		500		400		400		285	J	70	J	316	J	41.4	J
Magnesium	328		ND		460,468		460,468		480	J	75.9	J	425	J	514	J
Manganese	8.1		1600		1,800	n	47,000	n	28.7	J	4.9	J	43.8	J	41.1	J
Mercury	0.07		3.7		23	n	610	n	0.15		0.04	J	0.07		0.06	
Nickel	4.4		105		1,600	n	41,000	n	2.9	J	2.5	J	4.8	J	0.84	J
Potassium	210		ND		1,000,000		1,000,000		319	J	134	J	316	J	319	J
Sodium	ND		ND		100,000		1,000,000		926	J	509	J	1090	J	590	J
Vanadium	3.1		15		550	n	14,000	n	4.7	J	1.9	J	2.8	J	2.6	J
Zinc	17.2		23000		23,000	n	610,000	n	192	J	112	J	309	J	27.2	J
General Chemistry																
TRPH, mg/kg	ND		350		ND		ND		**26000**		**85000**		**61000**		**53000**	

Appendix B
Table B-3. Notes for Summary of Positive Detections in
Lift Pit Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

NOTES:

The background screening value is twice the average of detected concentrations for inorganic analytes.

SCTL = Florida Department of Environmental Protection, Soil Cleanup Target Levels, Chapter 62-777 FAC, May 26, 1999.
Values indicated are for direct exposure scenario. Value for chromium is for chromium (IV).
Value for mercury is for inorganic mercury.

RBC = Risk-Based Concentration Table, USEPA Region III, May 1996, R.L. Smith. RBC for chromium is based on chromium VI. RBC for lead is not available; value is Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites (OSWER directive 9355-4-12). For essential nutrients (calcium, magnesium, sodium, potassium) screening values were derived based on recommended daily allowances.
RBC for benzo(g,h,i)perylene and phenanthrene are not available, value is based on pyrene.

n = noncarcinogenic pathway
c = carcinogenic pathway
ND = Not determined
bls = below land surface
PCB = polychlorinated biphenyl
OSWER = Office of Solid Waste and Emergency Response
USEPA = U.S. Environmental Protection Agency
DDD = Dichlorodiphenyldichloroethane
DDE = Dichlorodiphenyldichloroethene
DDT = Dichlorodiphenyltrichloroethane
D = Indicates value was determined during a diluted reanalysis
J = Reported concentration is an estimated quantity

mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram

All inorganics results expressed in milligrams per kilogram (mg/kg) soil dry weight; organics in micrograms per kilogram (ug/kg) soil dry weight.
Bold/shaded values indicate exceedance of regulatory guidance and background.

TABLE B-4

SUMMARY OF POSITIVE DETECTIONS IN GROUNDWATER ANALYTICAL RESULTS

Appendix B

Table B-4. Summary of Positive Detections in Groundwater Analytical Results

Study Area 35

Naval Training Center, Orlando

Orlando, FL

Sample ID	Background Screening	FDEP GCTL		FEDMCL	RBC for Tap Water		35G00101		35H00101		35G00201		35H00201		35G00301	
Sampling Date							5-Nov-97		5-Nov-97		5-Nov-97		5-Nov-97		5-Nov-97	
Volatile Organics, ug/L																
Methylene chloride		5	p/c	5	4.1	c									12	
Semivolatile Organics, ug/L																
Fluoranthene		280	mc/st	ND	1500	n										
Pentachlorophenol		1	p/c	1	29,000	n									0.4	J
Pyrene		210	mc/st	ND	1100	n										
Pesticides/PCBs, ug/L																
4,4'-DDD		0.1	mc/c	ND	0.2	c					0.01	J				
gamma-BHC (Lindane)		0.2	p/c	0.2	0.052	c	0.0046	J								
Heptachlor		0.4	p/c	0.4	0.0023	c										
Inorganics, ug/L																
Aluminum	4,067	200	s	ND	37,000	n	518				1810				246	
Antimony	4.1	6	p/st	6	15	n										
Barium	31.4	2,000	p/st	2,000	2,600	n					12.9	J			18.1	J
Calcium	36,830	ND		ND	1,000,000		12500		13600		10700		9900		8120	
Chromium	7.8	100	p	100	ND						3.4	J				
Cobalt	ND	ND		ND	2,200	n										
Copper	5.4	1,000	s/st	1,300	1,500	n	2.8	J	2.6	J	2.6	J	2.8	J		
Iron	1,227	300	s	ND	11,000	n	315		291		173		82.5	J	221	
Lead	4	15	p/st	15	15				3.1		2.8	J				
Magnesium	4,560	ND		ND	118,807		600	J	622	J	2270	J	2140	J	955	J
Manganese	17	50	s	ND	840	n					19.4		17.9			
Nickel	ND	100	p/st	100	730	n			2.6	J	3.7	J	2.8	J		
Potassium	5,400	ND		ND	297,016		1390	J	1420	J	5470		5610		1930	J
Selenium	9.7	50	p	50	180	n					4.2	J				
Sodium	18,222	160,000	p	ND	396,022		8690		8860		5380		5510		3310	J
Thallium	3.8	2	p	2	ND						7.2	J				
Vanadium	20.6	49	mc/st	ND	260	n	3.1	J	2.8	J	4.5	J	3.8	J		
Zinc	4	5000	s/st	ND	11,000	n			10	J						
General Chemistry, mg/L																
Suspended Solids	ND	ND		ND	ND		6									

Appendix B
Table B-4. Summary of Positive Detections in Groundwater Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	Background Screening	FDEP GCTL		FEDMCL	RBC for Tap Water		35H00301		35G00401		35H00401		35G00501		35H00501	
Sampling Date							5-Nov-97		5-Nov-97		5-Nov-97		20-Nov-97		20-Nov-97	
Volatile Organics, ug/L																
Methylene chloride		5	p/c	5	4.1	c			2							
Semivolatile Organics, ug/L																
Fluoranthene		280	mc/st	ND	1500	n							0.5	J		
Pentachlorophenol		1	p/c	1	29,000	n										
Pyrene		210	mc/st	ND	1100	n							0.4	J		
Pesticides/PCBs, ug/L																
4,4'-DDD		0.1	mc/c	ND	0.2	c										
gamma-BHC (Lindane)		0.2	p/c	0.2	0.052	c										
Heptachlor		0.4	p/c	0.4	0.0023	c			0.14							
Inorganics, ug/L																
Aluminum	4,067	200	s	ND	37,000	n			105	J			93.2	J	59.7	J
Antimony	4.1	6	p/st	6	15	n	4.5	J								
Barium	31.4	2,000	p/st	2,000	2,600	n	13.2	J								
Calcium	36,830	ND		ND	1,000,000		7870		4690	J	4630	J	57200		55100	
Chromium	7.8	100	p	100	ND											
Cobalt	ND	ND		ND	2,200	n							1.8	J		
Copper	5.4	1,000	s/st	1,300	1,500	n										
Iron	1,227	300	s	ND	11,000	n	211		92.6	J	68.5	J				
Lead	4	15	p/st	15	15											
Magnesium	4,560	ND		ND	118,807		926	J	789	J	751	J	2200	J	2120	J
Manganese	17	50	s	ND	840	n										
Nickel	ND	100	p/st	100	730	n										
Potassium	5,400	ND		ND	297,016		1830	J	1410	J	1320	J	3480	J	3380	J
Selenium	9.7	50	p	50	180	n	2.7	J			3.2	J				
Sodium	18,222	160,000	p	ND	396,022		3390	J	5040		4820	J	14600	J	14900	J
Thallium	3.8	2	p	2	ND											
Vanadium	20.6	49	mc/st	ND	260	n							2.2	J	2	J
Zinc	4	5000	s/st	ND	11,000	n										
General Chemistry, mg/L																
Suspended Solids	ND	ND		ND	ND											

Apendix B
Table B-4. Notes for Summary of Positive Detections in Groundwater Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

NOTES:

Groundwater background screening value is twice the average of detected concentrations for inorganic analytes.
FDEPGCTL = Florida Department of Environmental Protection, Groundwater Cleanup Target Levels, Chapter 62-777 FAC, May 26, 1999.
FEDMCL= Federal Maximum Contaminant Levels, Primary Drinking Water Regulations and Health Advisories, February 1996.
RBC = Risk-Based Concentration Table, USEPA Region III, March 1997, R.L. Smith.
For essential nutrients (calcium, magnesium, potassium, and sodium) screening values were derived based on recommended daily allowances.
s = secondary groundwater standard.
st = systemic toxicant.
mc = based on minimum criteria
p = primary standard.
o = organoleptic.
n = noncarcinogenic effects.
c = carcinogen (GCTLs) or carcinogenic effects (RBCs).
ND = Not determined.
USEPA = U.S. Environmental Protection Agency.
H = Filtered sample (0.45 micron in-line filter).
J = Reported concentration is an estimated quantity.
ug/L = micrograms per liter.
mg/L = milligrams per liter.
Bold/shaded numbers indicate exceedance of groundwater guidance and background.
Blank space indicates analyte/compound was not detected at the reporting limit.

TABLE B-5

SUMMARY OF POSITIVE DETECTIONS IN GROUNDWATER ANALYTICAL RESULTS - LIFT PIT MICROWELLS

Appendix B

Table B-5. Summary of Positive Detections in Groundwater Analytical Results - Lift Pit Microwells
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	FDEP GCTL		FEDMCL	RBC for Tap Water		35G00501		35G00601		35G00701		35G00801	
Sampling Date						6-Mar-98		6-Mar-98		6-Mar-98		6-Mar-98	
Volatile Organics, ug/L													
Acetone	700	mc/st	ND	3700	n	4	J	6					
Methylene chloride	5	p/c	5	4.1	c								
Carbon disulfide	700	mc/st	ND	1000	n			10		14			
Semivolatile Organics, ug/L													
bis(2-Ethylhexyl)phthalate	6	p/c	6	4.8	c	2	J	2	J	0.8	J		
Phenol	10	o/st	ND	22,000	n			**11**				7	J

NOTES:

FDEPGCTL = Florida Department of Environmental Protection, Groundwater Cleanup Target Levels, Chapter 62-777 FAC, May 26, 1999.
FEDMCL= Federal Maximum Contaminant Levels, Primary Drinking Water Regulations and Health Advisories, February 1996.
RBC = Risk-Based Concentration Table, USEPA Region III, March 1997, R.L. Smith.
s = secondary groundwater standard.
st = systemic toxicant.
mc = based on minimum criteria
p = primary standard.
o = organoleptic.
n = noncarcinogenic effects.
c = carcinogen (GCTLs) or carcinogenic effects (RBCs).
ND = Not determined.
USEPA = U.S. Environmental Protection Agency.
J = Reported concentration is an estimated quantity.
ug/L = micrograms per liter.
mg/L = milligrams per liter.
Bold/shaded numbers indicate exceedance of groundwater guidance and background.
Blank space indicates analyte/compound was not detected at the reporting limit.

TABLE B-6

SUMMARY OF POSITIVE DETECTIONS IN SURFACE SOIL
APRIL AND JUNE 2000,
CONFIRMATION SAMPLES

APPENDIX B

TABLE B-6

SUMMARY OF POSITIVE DETECTIONS IN SURFACE SOIL ANALYTICAL RESULTS - CONFIRMATION SAMPLING, APRIL AND JUNE 2000

Sample ID	CAS No.	Screening Criteria[a]		NTC35SA01312	NTC35SA01412	NTC35SA01512	NTC35SA01612	NTC35S01701	NTC35S01801	NTC35S01801-D	NTC35S01901
Lab ID		Florida	NTC	A0D180140056	A0D180140057	A0D180140058	A0D180140059	A0F230119001	A0F230119002	A0F230119016	A0F230119003
Sample Date		SCTL[b]	BGSV[c]	4/21/00	4/21/00	4/21/00	4/21/00	6/23/00	6/23/00	6/23/00	6/23/00
Inorganics (mg/kg)											
Arsenic	7440-38-2	0.8	1	NA	NA	NA	1.2	NA	NA	NA	NA
Lead	7439-92-1	400[d]	14.5	261	30.9	468	23.4	398 J	192 J	154 J	83.3 J

"J" qualifier indicates an estimated value.
NA Not analyzed.
Values in shaded cells are equal to or exceed the screening criteria.
[a] The screening criterion is the greater of the SCTL or BGSV.
[b] Soil Cleanup Target Level (Development of Soil Cleanup Target Levels (SCTLs) for Chapter 62-777, F.A.C., May 26, 1999).
[c] Background Screening Value (Background Sampling Report for NTC, Orlando, Florida; ABB Environmental Services, August 1995) for inorganics only.
[d] Residential direct exposure value from USEPA Revised Interim Soil Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12 (1994).

APPENDIX C

ANALYTICAL RESULTS TABLES

Table C-1 Summary of Surface Soil Analytical Results
Table C-2 Summary of Subsurface Soil Analytical Results
Table C-3 Summary of Groundwater Analytical Results

TABLE C-1

SUMMARY OF SURFACE SOIL ANALYTICAL RESULTS

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35S00101	35S00201	35S00301	35S00301D	35S00401	35S00501	35S00601
Lab ID	S776201*19	S776201*17	S776201*15	S776201*22	S776391*7	S776391*20	S776391*12
Sampling Date	10/31/97	10/31/97	10/31/97	10/31/97	11/10/97	11/10/97	11/10/97
Volatile organics, ug/kg							
1,1,1-Trichloroethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
1,1,2,2-Tetrachloroethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
1,1,2-Trichloroethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
1,1-Dichloroethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
1,1-Dichloroethene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
1,2-Dichloroethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
1,2-Dichloroethene (total)	11 U	10 U	11 U	11 U	10 U	11 U	10 U
1,2-Dichloropropane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
2-Butanone	11 UJ	10 UJ	11 UJ	11 UJ	10 U	11 U	10 U
2-Hexanone	11 U	10 UJ	11 U	11 UJ	10 U	11 U	10 U
4-Methyl-2-pentanone	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Acetone	11 U	10 UJ	11 U	11 UJ	10 U	11 UJ	10 UJ
Benzene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Bromodichloromethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Bromoform	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Bromomethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Carbon disulfide	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Carbon tetrachloride	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Chlorobenzene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Chloroethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Chloroform	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Chloromethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
cis-1,3-Dichloropropene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Dibromochloromethane	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Ethylbenzene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Methylene chloride	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Styrene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Tetrachloroethene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Toluene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
trans-1,3-Dichloropropene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Trichloroethene	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Vinyl chloride	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Xylene (total)	11 U	10 U	11 U	11 U	10 U	11 U	10 U
Semivolatile organics, ug/kg							
1,2,4-Trichlorobenzene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
1,2-Dichlorobenzene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
1,3-Dichlorobenzene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
1,4-Dichlorobenzene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2,2'-oxybis(1-Chloropropane)	350 U	340 U	350 U	350 UJ	340 U	350 U	340 U
2,4,5-Trichlorophenol	880 U	860 U	880 U	880 U	860 U	880 U	860 U
2,4,6-Trichlorophenol	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2,4-Dichlorophenol	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2,4-Dimethylphenol	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2,4-Dinitrophenol	880 U	860 U	880 U	880 UJ	860 U	880 UJ	860 U
2,4-Dinitrotoluene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2,6-Dinitrotoluene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2-Chloronaphthalene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2-Chlorophenol	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2-Methylnaphthalene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2-Methylphenol	350 U	340 U	350 U	350 U	340 U	350 U	340 U
2-Nitroaniline	880 U	860 U	880 U	880 U	860 U	880 U	860 U
2-Nitrophenol	350 U	340 U	350 U	350 U	340 U	350 U	340 U
3,3'-Dichlorobenzidine	350 U	340 U	350 U	350 U	340 U	350 U	340 U
3-Methylphenol/4-Methylphenol	350 U	340 U	350 U	350 UJ	340 U	350 U	340 U
3-Nitroaniline	880 U	860 U	880 U	880 U	860 U	880 U	860 U
4,6-Dinitro-2-methylphenol	880 U	860 U	880 U	880 UJ	860 U	880 U	860 U

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35S00101	35S00201	35S00301	35S00301D	35S00401	35S00501	35S00601
Lab ID	S776201*19	S776201*17	S776201*15	S776201*22	S776391*7	S776391*20	S776391*12
Sampling Date	10/31/97	10/31/97	10/31/97	10/31/97	11/10/97	11/10/97	11/10/97
4-Bromophenyl-phenylether	350 U	340 U	350 U	350 U	340 U	350 U	340 U
4-Chloro-3-methylphenol	350 U	340 U	350 U	350 U	340 U	350 U	340 U
4-Chloroaniline	350 UJ	340 UJ	350 UJ	350 U	340 U	350 U	340 U
4-Chlorophenyl-phenylether	350 U	340 U	350 U	350 U	340 U	350 U	340 U
4-Nitroaniline	880 U	860 U	880 U	880 U	860 U	880 U	860 U
4-Nitrophenol	880 U	860 U	880 U	880 UJ	860 UJ	880 U	860 UJ
Acenaphthene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Acenaphthylene	350 U	340 U	350 U	350 U	340 U	13 J	26 J
Anthracene	350 U	13 J	350 U	350 U	340 U	12 J	340 U
Benzo(a)anthracene	350 U	340 U	350 U	350 U	340 U	18 J	31 J
Benzo(a)pyrene	350 U	340 U	350 U	350 U	340 U	22 J	62 J
Benzo(b)fluoranthene	350 U	340 U	350 U	350 U	340 U	28 J	90 J
Benzo(g,h,i)perylene	350 U	340 U	350 U	350 U	340 U	24 J	340 U
Benzo(k)fluoranthene	350 U	340 U	350 U	350 U	340 U	25 J	79 J
bis(2-Chloroethoxy)methane	350 U	340 U	350 U	350 U	340 U	350 U	340 U
bis(2-Chloroethyl)ether	350 U	340 U	350 U	350 UJ	340 U	350 U	340 U
bis(2-Ethylhexyl)phthalate	350 U	340 U	350 U	350 U	340 UJ	350 U	340 UJ
Butylbenzylphthalate	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Carbazole	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Chrysene	350 U	100 J	350 U	350 U	340 U	31 J	80 J
Di-n-butylphthalate	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Di-n-octylphthalate	350 U	340 U	350 U	350 U	340 UJ	350 U	340 UJ
Dibenz(a,h)anthracene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Dibenzofuran	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Diethylphthalate	350 U	340 U	350 U	350 U	340 UJ	350 U	340 UJ
Dimethylphthalate	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Fluoranthene	350 U	10 J	350 U	350 U	340 U	43 J	96 J
Fluorene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Hexachlorobenzene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Hexachlorobutadiene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Hexachlorocyclopentadiene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Hexachloroethane	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Indeno(1,2,3-cd)pyrene	350 U	340 U	350 U	350 U	340 U	13 J	340 U
Isophorone	350 U	340 U	350 U	350 U	340 U	350 U	340 U
N-Nitroso-di-n-propylamine	350 U	340 U	350 U	350 UJ	340 U	350 U	340 U
N-Nitrosodiphenylamine	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Naphthalene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Nitrobenzene	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Pentachlorophenol	880 U	860 U	880 U	880 UJ	860 U	880 U	860 U
Phenanthrene	350 U	340 U	350 U	350 U	340 U	16 J	25 J
Phenol	350 U	340 U	350 U	350 U	340 U	350 U	340 U
Pyrene	350 U	66 J	350 U	350 U	340 U	46 J	68 J
Pesticides/PCBs, ug/kg							
4,4'-DDD	3.5 U	290 D	3.5 U	3.5 U	0.13 J	12 J	0.65 J
4,4'-DDE	3.5 U	46	1.3 J	1.3 J	3.1 J	8.3 J	5.5 J
4,4'-DDT	3.5 U	6.9 U	1.3 J	1.5 J	2.9 J	11 J	8.3
Aldrin	1.8 U	3.5 U	1.8 U	1.8 U	1.8 U	1.8 U	0.28 J
alpha-BHC	1.8 U	2.2 J	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
alpha-Chlordane	1.8 U	8.2	1.8 U	1.8 U	1.8 U	35 D	1.8 U
Aroclor-1016	35 U	69 U	35 U	35 U	34 U	35 U	34 U
Aroclor-1221	71 U	140 U	71 U	71 U	70 U	71 U	70 U
Aroclor-1232	35 U	69 U	35 U	35 U	34 U	35 U	34 U
Aroclor-1242	35 U	69 U	35 U	35 U	34 U	35 U	34 U
Aroclor-1248	35 U	69 U	35 U	35 U	34 U	35 U	34 U
Aroclor-1254	35 U	69 U	35 U	35 U	34 U	35 U	34 U
Aroclor-1260	35 U	150 J	35 U	35 U	34 U	210 J	34 U
beta-BHC	1.8 U	3.5 U	1.8 U	1.8 U	1.8 U	1.8 UJ	0.56 J

Appendix C

Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35S00101	35S00201	35S00301	35S00301D	35S00401	35S00501	35S00601
Lab ID	S776201*19	S776201*17	S776201*15	S776201*22	S776391*7	S776391*20	S776391*12
Sampling Date	10/31/97	10/31/97	10/31/97	10/31/97	11/10/97	11/10/97	11/10/97
delta-BHC	1.8 U	4.9	1.8 U	1.8 U	1.8 U	0.6 J	1.8 U
Dieldrin	3.5 U	6.9 U	3.5 U	3.5 U	3.4 U	3.7 J	0.12 J
Endosulfan I	1.8 U	3.5 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Endosulfan II	3.5 U	6.9 U	3.5 U	3.5 U	3.4 U	3.5 U	3.4 U
Endosulfan sulfate	3.5 U	2.5 J	3.5 U	3.5 U	3.4 U	3.5 U	3.4 U
Endrin	3.5 U	6.9 U	3.5 U	3.5 U	3.4 U	3.5 U	3.4 U
Endrin aldehyde	3.5 U	6.9 U	3.5 U	3.5 U	3.4 U	3.5 U	3.4 U
Endrin ketone	3.5 U	6.9 U	3.5 U	3.5 U	3.4 U	3.5 U	3.4 U
gamma-BHC (Lindane)	1.8 U	3.5 U	1.8 U	1.8 U	1.8 U	1 J	1.8 U
gamma-Chlordane	0.08 J	11	1.8 U	1.8 U	1.8 U	47 D	2.6
Heptachlor	0.09 J	3.5 U	0.06 J	1.8 UJ	1.8 U	1.8 U	1.8 U
Heptachlor epoxide	1.8 U	1.7 J	1.8 U	1.8 U	1.8 U	1.6 J	0.42 J
Methoxychlor	2.2 J	35 U	1.4 J	1.2 J	0.94 J	18 U	7.3 J
Toxaphene	180 U	350 U	180 U	180 U	180 U	180 U	180 U
Inorganics, mg/kg							
Aluminum	1400 J	1650 J	309 J	240 J	1390	1330	2540
Antimony	0.93 U	2.9 U	1 UJ	2.2 UJ	0.69 U	1.5 J	0.69 U
Arsenic	1.4 J	1.3 J	0.89 J	1.1 J	0.75 U	3.2	0.75 U
Barium	2.4 UJ	75.2 J	2.5 UJ	2.3 UJ	3.6 U	99.4	8.5 J
Beryllium	0.04 U	0.1 J	0.04 U	0.04 U	0.04 U	0.13 J	0.08 J
Cadmium	0.13 U	0.12 U	0.13 U	0.13 U	0.12 U	1.1	0.23 J
Calcium	27900	13500	16400 J	4620 J	1020 U	48500	6400
Chromium	3.4	4.4	1.6 J	1.5 J	3.1	207	4.2
Cobalt	0.72 J	0.66 J	0.58 J	0.7 J	0.21 U	1.7 J	0.21 U
Copper	0.47 U	6	0.74 J	0.47 UJ	1.3 U	36.7	2.8 U
Iron	485	703 J	47.3 J	36.3 J	105	1320	722
Lead	1.6 J	47.6 J	1.3 J	1 J	12.8	1240	25.8
Magnesium	214 U	584 J	192 J	62.1 J	31.6 U	756 U	280 U
Manganese	4.1	30.2	6 J	3.2 U	1.7 U	42.4	14.9
Mercury	0.03 U	0.02 U	0.03 UJ	0.03 J	0.03 J	0.06	0.03 U
Nickel	0.49 U	0.48 U	0.49 U	0.49 U	0.48 U	2.1 J	0.61 J
Potassium	23.3 U	114 J	24.2 UJ	12.1 UJ	17.7 U	118 U	54.4 U
Selenium	0.55 U	0.63 J	0.55 J	0.57 J	0.54 U	0.55 U	0.54 U
Silver	0.91 J	0.62 U	0.83 J	0.8 J	0.62 U	0.64 U	0.62 U
Sodium	54.6 UJ	81.5 UJ	43.6 UJ	38.1 UJ	13.3 UJ	36.6 UJ	19.8 UJ
Thallium	1 U	0.98 U	1 UJ	2 J	0.98 U	1 U	0.98 U
Vanadium	1.2 J	1.1 J	1.2 J	0.36 UJ	0.46 J	3.3 J	1.5 J
Zinc	0.57 UJ	16.8 J	0.64 UJ	0.32 UJ	7.3 U	125	65.9 U
General Chemistry							
pH						8	
TRPH	42	7200	140		11	1500	43

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35S00701	35S00801	35S00901	35S01001	35S01101	35S01301	35S01401
Lab ID	S776391*13	S776391*14	S776391*9	S776391*10	S776391*11	S776621*1	S776621*2
Sampling Date	11/10/97	11/10/97	11/10/97	11/10/97	11/10/97	11/20/97	11/20/97
Volatile organics, ug/kg							
1,1,1-Trichloroethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
1,1,2,2-Tetrachloroethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
1,1,2-Trichloroethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
1,1-Dichloroethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
1,1-Dichloroethene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
1,2-Dichloroethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
1,2-Dichloroethene (total)	10 U	11 U	10 U	10 U	10 U	12 U	11 U
1,2-Dichloropropane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
2-Butanone	10 U	11 U	10 U	10 U	10 U	12 U	42
2-Hexanone	10 U	11 U	10 U	10 U	10 U	12 U	11 U
4-Methyl-2-pentanone	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Acetone	10 UJ	11 UJ	10 U	10 UJ	10 UJ	12 U	120
Benzene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Bromodichloromethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Bromoform	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Bromomethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Carbon disulfide	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Carbon tetrachloride	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Chlorobenzene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Chloroethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Chloroform	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Chloromethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
cis-1,3-Dichloropropene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Dibromochloromethane	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Ethylbenzene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Methylene chloride	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Styrene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Tetrachloroethene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Toluene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
trans-1,3-Dichloropropene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Trichloroethene	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Vinyl chloride	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Xylene (total)	10 U	11 U	10 U	10 U	10 U	12 U	11 U
Semivolatile organics, ug/kg							
1,2,4-Trichlorobenzene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
1,2-Dichlorobenzene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
1,3-Dichlorobenzene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
1,4-Dichlorobenzene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
2,2'-oxybis(1-Chloropropane)	340 UJ	350 UJ	340 U	340 U	350 U	390 U	3600 U
2,4,5-Trichlorophenol	860 U	890 U	860 U	860 U	870 U	990 U	9100 U
2,4,6-Trichlorophenol	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
2,4-Dichlorophenol	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
2,4-Dimethylphenol	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
2,4-Dinitrophenol	860 U	890 U	860 UJ	860 U	870 U	990 UJ	9100 UJ
2,4-Dinitrotoluene	340 UJ	350 UJ	340 U	340 U	350 U	390 U	3600 U
2,6-Dinitrotoluene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
2-Chloronaphthalene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
2-Chlorophenol	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
2-Methylnaphthalene	340 U	350 U	340 U	340 U	350 U	390 U	590 J
2-Methylphenol	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
2-Nitroaniline	860 U	890 U	860 U	860 U	870 U	990 U	9100 U
2-Nitrophenol	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
3,3'-Dichlorobenzidine	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
3-Methylphenol/4-Methylphenol	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
3-Nitroaniline	860 U	890 U	860 U	860 U	870 U	990 U	9100 U
4,6-Dinitro-2-methylphenol	860 U	890 U	860 U	860 U	870 U	990 U	9100 U

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35S00701	35S00801	35S00901	35S01001	35S01101	35S01301	35S01401
Lab ID	S776391*13	S776391*14	S776391*9	S776391*10	S776391*11	S776621*1	S776621*2
Sampling Date	11/10/97	11/10/97	11/10/97	11/10/97	11/10/97	11/20/97	11/20/97
4-Bromophenyl-phenylether	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
4-Chloro-3-methylphenol	340 UJ	350 UJ	340 U	340 U	350 U	390 U	3600 U
4-Chloroaniline	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
4-Chlorophenyl-phenylether	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
4-Nitroaniline	860 U	890 U	860 U	860 U	870 U	990 U	9100 U
4-Nitrophenol	860 UJ	890 UJ	860 U	860 UJ	870 UJ	990 U	9100 U
Acenaphthene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Acenaphthylene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Anthracene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Benzo(a)anthracene	340 U	350 U	340 U	340 U	24 J	390 U	3600 U
Benzo(a)pyrene	340 U	350 U	340 U	340 U	41 J	390 U	3600 U
Benzo(b)fluoranthene	340 U	350 U	340 U	340 U	56 J	390 U	3600 U
Benzo(g,h,i)perylene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Benzo(k)fluoranthene	340 U	350 U	340 U	340 U	50 J	390 U	3600 U
bis(2-Chloroethoxy)methane	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
bis(2-Chloroethyl)ether	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
bis(2-Ethylhexyl)phthalate	340 UJ	350 UJ	340 UJ	340 UJ	350 UJ	410	3600 U
Butylbenzylphthalate	340 UJ	350 UJ	340 UJ	340 U	350 U	390 U	3600 U
Carbazole	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Chrysene	340 U	350 U	13 J	340 U	58 J	390 U	3600 U
Di-n-butylphthalate	340 U	350 U	340 UJ	340 U	350 U	390 U	3600 U
Di-n-octylphthalate	340 U	350 U	340 U	340 UJ	350 UJ	390 U	3600 UJ
Dibenz(a,h)anthracene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Dibenzofuran	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Diethylphthalate	340 UJ	350 U	340 U	340 UJ	350 UJ	390 U	3600 U
Dimethylphthalate	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Fluoranthene	340 U	350 U	15 J	44 J	80 J	390 U	3600 U
Fluorene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Hexachlorobenzene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Hexachlorobutadiene	340 UJ	350 UJ	340 U	340 U	350 U	390 U	3600 U
Hexachlorocyclopentadiene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Hexachloroethane	340 UJ	350 U	340 U	340 U	350 U	390 U	3600 U
Indeno(1,2,3-cd)pyrene	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Isophorone	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
N-Nitroso-di-n-propylamine	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
N-Nitrosodiphenylamine	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Naphthalene	340 U	350 U	340 U	340 U	350 U	390 U	140 J
Nitrobenzene	340 U	350 UJ	340 U	340 U	350 U	390 U	3600 U
Pentachlorophenol	860 U	890 U	860 U	860 U	870 U	990 U	9100 U
Phenanthrene	340 U	350 U	6 J	30 J	20 J	390 U	3600 U
Phenol	340 U	350 U	340 U	340 U	350 U	390 U	3600 U
Pyrene	340 U	350 U	19 J	31 J	56 J	390 U	3600 UJ
Pesticides/PCBs, ug/kg							
4,4'-DDD	3.4 U	3.5 U	0.86 J	2.4 J	3.1 J	14 J	3.6 UR
4,4'-DDE	3.4 U	2.4 J	84 D	71 D	36 J	29 J	25 J
4,4'-DDT	0.31 J	5.2 J	20	77 DJ	54 J	3.9 UJ	3.6 UR
Aldrin	0.14 J	1.8 U	1.8 U	1.8 U	0.75 J	2 UJ	1.7 J
alpha-BHC	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	2 UJ	1.9 UR
alpha-Chlordane	0.12 J	0.67 J	0.82 J	14 J	6.2 J	4.8 J	1.9 UR
Aroclor-1016	34 U	35 U	34 U	34 U	35 U	39 UJ	36 UR
Aroclor-1221	70 U	72 U	70 U	70 U	70 U	80 UJ	74 UR
Aroclor-1232	34 U	35 U	34 U	34 U	35 U	39 UJ	36 UR
Aroclor-1242	34 U	35 U	34 U	34 U	35 U	39 UJ	36 UR
Aroclor-1248	34 U	35 U	34 U	34 U	35 U	39 UJ	36 UR
Aroclor-1254	34 U	21 J	34 U	34 U	51 J	39 UJ	36 UR
Aroclor-1260	34 U	25 J	34 U	110 J	100 J	39 UJ	36 UR
beta-BHC	1.8 U	0.08 J	1.8 U	0.61 J	0.79 J	1.2 J	5.5 J

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35S00701		35S00801		35S00901		35S01001		35S01101		35S01301		35S01401	
Lab ID	S776391*13		S776391*14		S776391*9		S776391*10		S776391*11		S776621*1		S776621*2	
Sampling Date	11/10/97		11/10/97		11/10/97		11/10/97		11/10/97		11/20/97		11/20/97	
delta-BHC	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	2	UJ	2	J
Dieldrin	3.4	U	3.5	U	3.4	U	2.6	J	3.5	U	3.9	UJ	0.96	J
Endosulfan I	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	2	UJ	1.9	UR
Endosulfan II	3.4	U	3.5	U	3.4	U	3.4	U	3.5	U	3.9	UJ	3.6	UR
Endosulfan sulfate	3.4	U	3.5	U	3.4	U	5.4	J	15	J	4.3	J	3.6	UR
Endrin	3.4	U	3.5	U	3.4	U	3.4	U	3.5	U	3.9	UJ	0.59	J
Endrin aldehyde	3.4	U	3.5	U	3.4	U	3.4	U	3.5	U	3.9	UJ	2	J
Endrin ketone	3.4	U	3.5	U	3.4	U	3.4	U	3.5	U	3.9	UJ	3.6	UR
gamma-BHC (Lindane)	1.8	U	1.8	U	1.8	U	0.24	J	0.2	J	2	UJ	1.9	UR
gamma-Chlordane	1.8	U	1.3	J	0.71	J	9.9	J	6.7	J	9	J	1.9	UR
Heptachlor	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	2	UJ	20	J
Heptachlor epoxide	1.8	U	1.8	U	1.8	U	1.1	J	1.8	U	1.6	J	1.9	UR
Methoxychlor	2.1	J	18	U	2.1	J	18	U	18	U	6.9	J	7.8	J
Toxaphene	180	U	180	U	180	U	180	U	180	U	200	UJ	190	UR
Inorganics, mg/kg														
Aluminum	1360		930		2110		2130		2010		12600		11000	
Antimony	0.69	U	0.98	J	0.69	U	0.69	U	0.69	U	0.87	J	0.73	UJ
Arsenic	4.8		2.2	J	1.1	J	0.75	U	0.76	U	6		1	J
Barium	13.9	J	163		9.3	J	27.3	J	56.6		157	J	8.1	J
Beryllium	0.04	U	0.14	J	0.06	J	0.06	J	0.09	J	0.21	U	0.1	U
Cadmium	0.23	J	4.3		0.57	J	0.51	J	0.36	J	1.7		0.29	J
Calcium	1910	U	144000		2830		2300	U	8280		9870	J	2060	J
Chromium	1.7	U	18.2		6.3		41.2		78.2		57.7	J	16.2	J
Cobalt	0.21	U	0.58	J	0.39	J	2.3	J	2.1	J	1.4	J	0.28	J
Copper	4.2	U	41.2		2.3	U	7.4		9.4		28.2	J	13.7	J
Iron	531		1220		752		1230		1040		4180	J	330	J
Lead	5		102		144		203		386		285	J	70	J
Magnesium	38.4	U	1380	U	144	U	314	U	215	U	480	J	75.9	J
Manganese	2.9	U	77.2		10.6		25.8		28.5		28.7	J	4.9	J
Mercury	0.09		1.1		0.03	U	0.95		0.21		0.15		0.04	J
Nickel	0.65	J	4.6	J	0.96	J	1.4	J	1.3	J	2.9	J	2.5	J
Potassium	21	U	80.2	U	37.4	U	37.9	U	47.7	U	319	J	134	J
Selenium	0.54	U	0.56	UJ	0.54	U	0.54	U	0.55	U	0.62	U	0.57	U
Silver	0.62	U	0.66	J	0.62	U	0.62	U	0.63	U	0.71	U	0.66	U
Sodium	14	J	67	UJ	11.7	UJ	33.6	UJ	18.1	UJ	926	J	509	J
Thallium	0.98	U	1	UJ	0.98	U	0.98	U	0.99	U	1.1	U	1	U
Vanadium	0.73	J	5.7	J	1.6	J	2.5	J	2	J	4.7	J	1.9	J
Zinc	36.3	U	197		229		227		124		192	J	112	J
General Chemistry														
pH														
TRPH	48		91		16		230		110		26000		85000	

Appendix C

Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35S01501		35S01601		NTC35SA01312	NTC35SA01412	NTC35SA01512	NTC35SA01612
Lab ID	S776621*3		S776621*4		A0D180140056	A0D180140057	A0D180140058	A0D180140059
Sampling Date	11/20/97		11/20/97		4/21/00	4/21/00	4/21/00	4/21/00
Volatile organics, ug/kg								
1,1,1-Trichloroethane	11	U	11	U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	11	U	11	U	NA	NA	NA	NA
1,1,2-Trichloroethane	11	U	11	U	NA	NA	NA	NA
1,1-Dichloroethane	11	U	11	U	NA	NA	NA	NA
1,1-Dichloroethene	11	U	11	U	NA	NA	NA	NA
1,2-Dichloroethane	11	U	11	U	NA	NA	NA	NA
1,2-Dichloroethene (total)	11	U	11	U	NA	NA	NA	NA
1,2-Dichloropropane	11	U	11	U	NA	NA	NA	NA
2-Butanone	11	U	11	U	NA	NA	NA	NA
2-Hexanone	11	U	11	U	NA	NA	NA	NA
4-Methyl-2-pentanone	11	U	11	UJ	NA	NA	NA	NA
Acetone	11	U	11	U	NA	NA	NA	NA
Benzene	11	U	11	U	NA	NA	NA	NA
Bromodichloromethane	11	U	11	U	NA	NA	NA	NA
Bromoform	11	U	11	U	NA	NA	NA	NA
Bromomethane	11	U	11	U	NA	NA	NA	NA
Carbon disulfide	11	U	11	U	NA	NA	NA	NA
Carbon tetrachloride	11	U	11	U	NA	NA	NA	NA
Chlorobenzene	11	U	11	UJ	NA	NA	NA	NA
Chloroethane	11	U	11	U	NA	NA	NA	NA
Chloroform	11	U	11	U	NA	NA	NA	NA
Chloromethane	11	U	11	U	NA	NA	NA	NA
cis-1,3-Dichloropropene	11	U	11	U	NA	NA	NA	NA
Dibromochloromethane	11	U	11	U	NA	NA	NA	NA
Ethylbenzene	11	U	11	U	NA	NA	NA	NA
Methylene chloride	11	U	11	U	NA	NA	NA	NA
Styrene	11	U	11	U	NA	NA	NA	NA
Tetrachloroethene	11	J	11	U	NA	NA	NA	NA
Toluene	11	U	4	J	NA	NA	NA	NA
trans-1,3-Dichloropropene	11	U	11	U	NA	NA	NA	NA
Trichloroethene	11	U	11	U	NA	NA	NA	NA
Vinyl chloride	11	U	11	U	NA	NA	NA	NA
Xylene (total)	11	U	11	U	NA	NA	NA	NA
Semivolatile organics, ug/kg								
1,2,4-Trichlorobenzene	3800	U	3700	U	NA	NA	NA	NA
1,2-Dichlorobenzene	3800	U	3700	U	NA	NA	NA	NA
1,3-Dichlorobenzene	3800	U	3700	U	NA	NA	NA	NA
1,4-Dichlorobenzene	3800	U	3700	U	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane)	3800	U	3700	U	NA	NA	NA	NA
2,4,5-Trichlorophenol	9500	U	9200	U	NA	NA	NA	NA
2,4,6-Trichlorophenol	3800	U	3700	U	NA	NA	NA	NA
2,4-Dichlorophenol	3800	U	3700	U	NA	NA	NA	NA
2,4-Dimethylphenol	3800	U	3700	U	NA	NA	NA	NA
2,4-Dinitrophenol	9500	UJ	9200	UJ	NA	NA	NA	NA
2,4-Dinitrotoluene	3800	U	3700	U	NA	NA	NA	NA
2,6-Dinitrotoluene	3800	U	3700	U	NA	NA	NA	NA
2-Chloronaphthalene	3800	U	3700	U	NA	NA	NA	NA
2-Chlorophenol	3800	U	3700	U	NA	NA	NA	NA
2-Methylnaphthalene	3800	U	3700	U	NA	NA	NA	NA
2-Methylphenol	3800	U	3700	U	NA	NA	NA	NA
2-Nitroaniline	9500	U	9200	U	NA	NA	NA	NA
2-Nitrophenol	3800	U	3700	U	NA	NA	NA	NA
3,3'-Dichlorobenzidine	3800	U	3700	U	NA	NA	NA	NA
3-Methylphenol/4-Methylphenol	3800	U	3700	U	NA	NA	NA	NA
3-Nitroaniline	9500	U	9200	U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	9500	U	9200	U	NA	NA	NA	NA

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35S01501		35S01601		NTC35SA01312	NTC35SA01412	NTC35SA01512	NTC35SA01612
Lab ID	S776621*3		S776621*4		A0D180140056	A0D180140057	A0D180140058	A0D180140059
Sampling Date	11/20/97		11/20/97		4/21/00	4/21/00	4/21/00	4/21/00
4-Bromophenyl-phenylether	3800	U	3700	U	NA	NA	NA	NA
4-Chloro-3-methylphenol	3800	U	3700	U	NA	NA	NA	NA
4-Chloroaniline	3800	U	3700	U	NA	NA	NA	NA
4-Chlorophenyl-phenylether	3800	U	3700	U	NA	NA	NA	NA
4-Nitroaniline	9500	U	9200	U	NA	NA	NA	NA
4-Nitrophenol	9500	U	9200	U	NA	NA	NA	NA
Acenaphthene	3800	U	3700	U	NA	NA	NA	NA
Acenaphthylene	3800	U	3700	U	NA	NA	NA	NA
Anthracene	3800	U	3700	U	NA	NA	NA	NA
Benzo(a)anthracene	3800	U	3700	U	NA	NA	NA	NA
Benzo(a)pyrene	3800	U	3700	U	NA	NA	NA	NA
Benzo(b)fluoranthene	3800	U	3700	U	NA	NA	NA	NA
Benzo(g,h,i)perylene	3800	U	3700	U	NA	NA	NA	NA
Benzo(k)fluoranthene	3800	U	3700	U	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	3800	U	3700	U	NA	NA	NA	NA
bis(2-Chloroethyl)ether	3800	U	3700	U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	3800	U	3700	U	NA	NA	NA	NA
Butylbenzylphthalate	3800	U	3700	U	NA	NA	NA	NA
Carbazole	3800	U	3700	U	NA	NA	NA	NA
Chrysene	3800	U	3700	U	NA	NA	NA	NA
Di-n-butylphthalate	3800	U	3700	U	NA	NA	NA	NA
Di-n-octylphthalate	3800	U	3700	U	NA	NA	NA	NA
Dibenz(a,h)anthracene	3800	U	3700	U	NA	NA	NA	NA
Dibenzofuran	3800	U	3700	U	NA	NA	NA	NA
Diethylphthalate	3800	U	3700	U	NA	NA	NA	NA
Dimethylphthalate	3800	U	3700	U	NA	NA	NA	NA
Fluoranthene	3800	U	3700	U	NA	NA	NA	NA
Fluorene	3800	U	3700	U	NA	NA	NA	NA
Hexachlorobenzene	3800	U	3700	U	NA	NA	NA	NA
Hexachlorobutadiene	3800	U	3700	U	NA	NA	NA	NA
Hexachlorocyclopentadiene	3800	U	3700	U	NA	NA	NA	NA
Hexachloroethane	3800	U	3700	U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	3800	U	3700	U	NA	NA	NA	NA
Isophorone	3800	U	3700	U	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	3800	U	3700	U	NA	NA	NA	NA
N-Nitrosodiphenylamine	3800	U	3700	U	NA	NA	NA	NA
Naphthalene	3800	U	3700	U	NA	NA	NA	NA
Nitrobenzene	3800	U	3700	U	NA	NA	NA	NA
Pentachlorophenol	9500	U	9200	U	NA	NA	NA	NA
Phenanthrene	3800	U	3700	U	NA	NA	NA	NA
Phenol	3800	U	3700	U	NA	NA	NA	NA
Pyrene	3800	U	3700	UJ	NA	NA	NA	NA
Pesticides/PCBs, ug/kg								
4,4'-DDD	3.8	UR	6.5	J	NA	NA	NA	NA
4,4'-DDE	51	DJ	46	J	NA	NA	NA	NA
4,4'-DDT	3.8	UR	3.7	UR	NA	NA	NA	NA
Aldrin	1.5	J	1.2	J	NA	NA	NA	NA
alpha-BHC	2	UR	1.9	UR	NA	NA	NA	NA
alpha-Chlordane	5	J	1.9	J	NA	NA	NA	NA
Aroclor-1016	38	UR	37	UR	NA	NA	NA	NA
Aroclor-1221	77	UR	74	UR	NA	NA	NA	NA
Aroclor-1232	38	UR	37	UR	NA	NA	NA	NA
Aroclor-1242	38	UR	37	UR	NA	NA	NA	NA
Aroclor-1248	38	UR	37	UR	NA	NA	NA	NA
Aroclor-1254	38	UR	37	UR	NA	NA	NA	NA
Aroclor-1260	38	UR	37	UR	NA	NA	NA	NA
beta-BHC	4.8	J	19	J	NA	NA	NA	NA

Appendix C

Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35S01501		35S01601		NTC35SA01312	NTC35SA01412	NTC35SA01512	NTC35SA01612
Lab ID	S776621*3		S776621*4		A0D180140056	A0D180140057	A0D180140058	A0D180140059
Sampling Date	11/20/97		11/20/97		4/21/00	4/21/00	4/21/00	4/21/00
delta-BHC	2	UR	1.9	UR	NA	NA	NA	NA
Dieldrin	3.8	UR	3.7	UR	NA	NA	NA	NA
Endosulfan I	2	UR	1.9	UR	NA	NA	NA	NA
Endosulfan II	3.8	UR	3.7	UR	NA	NA	NA	NA
Endosulfan sulfate	3.8	UR	3.7	UR	NA	NA	NA	NA
Endrin	1.7	J	1.6	J	NA	NA	NA	NA
Endrin aldehyde	3.8	UR	3.7	UR	NA	NA	NA	NA
Endrin ketone	2	J	3.7	UR	NA	NA	NA	NA
gamma-BHC (Lindane)	2	UR	1.9	UR	NA	NA	NA	NA
gamma-Chlordane	16	J	6.7	J	NA	NA	NA	NA
Heptachlor	2	UR	1.9	UR	NA	NA	NA	NA
Heptachlor epoxide	2	UR	1.9	UR	NA	NA	NA	NA
Methoxychlor	19	J	2.5	J	NA	NA	NA	NA
Toxaphene	200	UR	190	UR	NA	NA	NA	NA
Inorganics, mg/kg								
Aluminum	10400		4380		NA	NA	NA	NA
Antimony	0.97	J	0.92	J	NA	NA	NA	NA
Arsenic	2.2	J	0.8	U	NA	NA	NA	1.2
Barium	205	J	17.2	J	NA	NA	NA	NA
Beryllium	0.18	U	0.22	U	NA	NA	NA	NA
Cadmium	1.7		0.18	J	NA	NA	NA	NA
Calcium	5600	J	15400	J	NA	NA	NA	NA
Chromium	92.3	J	9.3	J	NA	NA	NA	NA
Cobalt	1.3	J	0.5	J	NA	NA	NA	NA
Copper	46.9	J	11	J	NA	NA	NA	NA
Iron	4720	J	1070	J	NA	NA	NA	NA
Lead	316	J	41.4	J	261	30.9	468	23.4
Magnesium	425	J	514	J	NA	NA	NA	NA
Manganese	43.8	J	41.1	J	NA	NA	NA	NA
Mercury	0.07		0.06		NA	NA	NA	NA
Nickel	4.8	J	0.84	J	NA	NA	NA	NA
Potassium	316	J	319	J	NA	NA	NA	NA
Selenium	0.6	U	0.58	U	NA	NA	NA	NA
Silver	0.69	U	0.67	U	NA	NA	NA	NA
Sodium	1090	J	590	J	NA	NA	NA	NA
Thallium	1.1	U	1	U	NA	NA	NA	NA
Vanadium	2.8	J	2.6	J	NA	NA	NA	NA
Zinc	309	J	27.2	J	NA	NA	NA	NA
General Chemistry								
pH								
TRPH	61000		53000		NA	NA	NA	NA

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	NTC35S01701	NTC35S01801	NTC35S01801-D	NTC35S01901
Lab ID	A0F230119001	A0F230119002	A0F230119016	A0F230119003
Sampling Date	6/23/00	6/23/00	6/23/00	6/23/00
Volatile organics, ug/kg				
1,1,1-Trichloroethane	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA
4-Methyl-2-pentanone	NA	NA	NA	NA
Acetone	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA
Chloromethane	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA
Styrene	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Toluene	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA
Xylene (total)	NA	NA	NA	NA
Semivolatile organics, ug/kg				
1,2,4-Trichlorobenzene	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	NA	NA
2-Chloronaphthalene	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA
2-Methylnaphthalene	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA
3,3'-Dichlorobenzidine	NA	NA	NA	NA
3-Methylphenol/4-Methylphenol	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	NTC35S01701	NTC35S01801	NTC35S01801-D	NTC35S01901
Lab ID	A0F230119001	A0F230119002	A0F230119016	A0F230119003
Sampling Date	6/23/00	6/23/00	6/23/00	6/23/00
4-Bromophenyl-phenylether	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA
4-Chlorophenyl-phenylether	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	NA	NA	NA	NA
bis(2-Chloroethyl)ether	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA
Di-n-butylphthalate	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA
Dimethylphthalate	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA
Phenol	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA
Pesticides/PCBs, ug/kg				
4,4'-DDD	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA
Aroclor-1016	NA	NA	NA	NA
Aroclor-1221	NA	NA	NA	NA
Aroclor-1232	NA	NA	NA	NA
Aroclor-1242	NA	NA	NA	NA
Aroclor-1248	NA	NA	NA	NA
Aroclor-1254	NA	NA	NA	NA
Aroclor-1260	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	NTC35S01701	NTC35S01801	NTC35S01801-D	NTC35S01901
Lab ID	A0F230119001	A0F230119002	A0F230119016	A0F230119003
Sampling Date	6/23/00	6/23/00	6/23/00	6/23/00
delta-BHC	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA
Endrin	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA
Inorganics, mg/kg				
Aluminum	NA	NA	NA	NA
Antimony	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA
Barium	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	398 J	192 J	154 J	83.3 J
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	NA	NA	NA	NA
Nickel	NA	NA	NA	NA
Potassium	NA	NA	NA	NA
Selenium	NA	NA	NA	NA
Silver	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Thallium	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
General Chemistry				
pH	NA	NA	NA	NA
TRPH	NA	NA	NA	NA

Appendix C
Table C-1. Summary of Surface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando Florida

NA = Identified parameter not analyzed.
Sample ID = Sample Identifier
Lab ID = Laboratory identifier

Units:

mg/kg	milligrams per kilogram
ug/kg	micrograms per kilogram
mg/L	milligrams per liter
ug/L	micrograms per liter

The following standard analytical data qualifiers have the following definitions:

U	The analyte/compound was analyzed for but was not detected above the reported sample quantitation limit. The number preceding the U qualifier is the reported sample quantitation limit.
J	The analyte/compound was positively identified and the associated numerical value is an estimated concentration of the analyte/compound in the sample.
UJ	The analyte/compound was not detected above the reported sample quantitation limit. The reported quantitation limit, however, is approximate and may or may not represent the actual limit of quantitation necessary to accurately measure the analyte/compound in the sample.
R	The sample results are rejected during data validation because of serious deficiencies in meeting quality control criteria.
D	Reported concentration is from a dilution or reanalysis of the sample.

TABLE C-2

SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

Appendix C
Table C-2. Summary of Subsurface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35B00101	35B00201	35B00301	35B00401	35B00501
Lab ID	S776201*20	S776201*18	S776201*16	S776391*8	S776391*21
Sampling Date	31-Oct-97	31-Oct-97	31-Oct-97	10-Nov-97	10-Nov-97
Volatile organics, ug/kg					
1,1,1-Trichloroethane	11 U	11 U	11 U	12 U	11 U
1,1,2,2-Tetrachloroethane	11 U	11 U	11 U	12 U	11 U
1,1,2-Trichloroethane	11 U	11 U	11 U	12 U	11 U
1,1-Dichloroethane	11 U	11 U	11 U	12 U	11 U
1,1-Dichloroethene	11 U	11 U	11 U	12 U	11 U
1,2-Dichloroethane	11 U	11 U	11 U	12 U	11 U
1,2-Dichloroethene (total)	11 U	11 U	11 U	12 U	11 U
1,2-Dichloropropane	11 U	11 U	11 U	12 U	11 U
2-Butanone	11 UJ	11 UJ	11 UJ	12 U	11 U
2-Hexanone	11 U	11 U	11 U	12 U	11 U
4-Methyl-2-pentanone	11 U	11 U	11 U	12 U	11 U
Acetone	11 U	11 U	11 U	12 U	11 UJ
Benzene	11 U	11 U	11 U	12 U	11 U
Bromodichloromethane	11 U	11 U	11 U	12 U	11 U
Bromoform	11 U	11 U	11 U	12 U	11 U
Bromomethane	11 U	11 U	11 U	12 U	11 U
Carbon disulfide	11 U	11 U	11 U	12 U	11 U
Carbon tetrachloride	11 U	11 U	11 U	12 U	11 U
Chlorobenzene	11 U	11 U	11 U	12 U	11 U
Chloroethane	11 U	11 U	11 U	12 U	11 U
Chloroform	11 U	11 U	11 U	12 U	11 U
Chloromethane	11 U	11 U	11 U	12 U	11 U
cis-1,3-Dichloropropene	11 U	11 U	11 U	12 U	11 U
Dibromochloromethane	11 U	11 U	11 U	12 U	11 U
Ethylbenzene	11 U	11 U	11 U	12 U	11 U
Methylene chloride	11 U	11 U	11 U	12 U	11 U
Styrene	11 U	11 U	11 U	12 U	11 U
Tetrachloroethene	11 U	11 U	11 U	12 U	11 U
Toluene	11 U	11 U	11 U	12 U	11 U
trans-1,3-Dichloropropene	11 U	11 U	11 U	12 U	11 U
Trichloroethene	11 U	11 U	11 U	12 U	11 U
Vinyl chloride	11 U	11 U	11 U	12 U	11 U
Xylene (total)	11 U	11 U	11 U	12 U	11 U
Semivolatile organics, ug/kg					
1,2,4-Trichlorobenzene	370 U	370 U	370 U	380 U	370 U
1,2-Dichlorobenzene	370 U	370 U	370 U	380 U	370 U
1,3-Dichlorobenzene	370 U	370 U	370 U	380 U	370 U
1,4-Dichlorobenzene	370 U	370 U	370 U	380 U	370 U
2,2'-oxybis(1-Chloropropane)	370 U	370 U	370 U	380 U	370 UJ
2,4,5-Trichlorophenol	920 U	920 U	930 U	960 U	920 U
2,4,6-Trichlorophenol	370 U	370 U	370 U	380 U	370 U
2,4-Dichlorophenol	370 U	370 U	370 U	380 U	370 U
2,4-Dimethylphenol	370 U	370 U	370 U	380 U	370 U
2,4-Dinitrophenol	920 U	920 U	930 U	960 U	920 UJ
2,4-Dinitrotoluene	370 U	370 U	370 U	380 U	370 U
2,6-Dinitrotoluene	370 U	370 U	370 U	380 U	370 U
2-Chloronaphthalene	370 U	370 U	370 U	380 U	370 U
2-Chlorophenol	370 U	370 U	370 U	380 U	370 U
2-Methylnaphthalene	370 U	370 U	370 U	380 U	370 U
2-Methylphenol	370 U	370 U	370 U	380 U	370 U
2-Nitroaniline	920 U	920 U	930 U	960 U	920 U
2-Nitrophenol	370 U	370 U	370 U	380 U	370 U

Appendix C
Table C-2. Summary of Subsurface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35B00101		35B00201		35B00301		35B00401		35B00501	
Lab ID	S776201*20		S776201*18		S776201*16		S776391*8		S776391*21	
Sampling Date	31-Oct-97		31-Oct-97		31-Oct-97		10-Nov-97		10-Nov-97	
3,3'-Dichlorobenzidine	370	U	370	U	370	U	380	U	370	U
3-Methylphenol/4-Methylphenol	370	U	370	U	370	U	380	U	370	U
3-Nitroaniline	920	U	920	U	930	U	960	U	920	U
4,6-Dinitro-2-methylphenol	920	U	920	U	930	U	960	U	920	U
4-Bromophenyl-phenylether	370	U	370	U	370	U	380	U	370	U
4-Chloro-3-methylphenol	370	U	370	U	370	U	380	U	370	UJ
4-Chloroaniline	370	UJ	370	UJ	370	UJ	380	U	370	U
4-Chlorophenyl-phenylether	370	U	370	U	370	U	380	U	370	U
4-Nitroaniline	920	U	920	U	930	U	960	U	920	U
4-Nitrophenol	920	U	920	U	930	U	960	UJ	920	UJ
Acenaphthene	370	U	370	U	370	U	380	U	370	U
Acenaphthylene	370	U	370	U	370	U	380	U	370	U
Anthracene	370	U	370	U	370	U	380	U	370	U
Benzo(a)anthracene	370	U	370	U	370	U	380	U	370	U
Benzo(a)pyrene	370	U	370	U	370	U	380	U	370	U
Benzo(b)fluoranthene	370	U	370	U	370	U	380	U	370	U
Benzo(g,h,i)perylene	370	U	370	U	370	U	380	U	370	U
Benzo(k)fluoranthene	370	U	370	U	370	U	380	U	370	U
bis(2-Chloroethoxy)methane	370	U	370	U	370	U	380	U	370	U
bis(2-Chloroethyl)ether	370	U	370	U	370	U	380	U	370	U
bis(2-Ethylhexyl)phthalate	370	U	370	U	370	U	380	UJ	370	UJ
Butylbenzylphthalate	370	U	370	U	370	U	380	U	370	UJ
Carbazole	370	U	370	U	370	U	380	U	370	U
Chrysene	370	U	370	U	370	U	380	U	370	U
Di-n-butylphthalate	370	U	370	U	370	U	380	U	370	U
Di-n-octylphthalate	370	U	370	U	370	U	380	UJ	370	U
Dibenz(a,h)anthracene	370	U	370	U	370	U	380	U	370	U
Dibenzofuran	370	U	370	U	370	U	380	U	370	U
Diethylphthalate	370	U	370	U	370	U	48	J	370	UJ
Dimethylphthalate	370	U	370	U	370	U	380	U	370	U
Fluoranthene	370	U	370	U	370	U	380	U	370	U
Fluorene	370	U	370	U	370	U	380	U	370	U
Hexachlorobenzene	370	U	370	U	370	U	380	U	370	U
Hexachlorobutadiene	370	U	370	U	370	U	380	U	370	UJ
Hexachlorocyclopentadiene	370	U	370	U	370	U	380	U	370	U
Hexachloroethane	370	U	370	U	370	U	380	U	370	U
Indeno(1,2,3-cd)pyrene	370	U	370	U	370	U	380	U	370	U
Isophorone	370	U	370	U	370	U	380	U	370	U
N-Nitroso-di-n-propylamine	370	U	370	U	370	U	380	U	370	U
N-Nitrosodiphenylamine	370	U	370	U	370	U	380	U	370	U
Naphthalene	370	U	370	U	370	U	380	U	370	U
Nitrobenzene	370	U	370	U	370	U	380	U	370	UJ
Pentachlorophenol	920	U	920	U	930	U	960	U	920	U
Phenanthrene	370	U	370	U	370	U	380	U	370	U
Phenol	370	U	370	U	370	U	380	U	370	U
Pyrene	370	U	370	U	370	U	380	U	370	U
Pesticides/PCBs, ug/kg										
4,4'-DDD	3.7	U	0.29	J	3.7	U	3.8	U	3.7	U
4,4'-DDE	0.2	J	3.7	U	3.7	U	0.62	J	3.7	U
4,4'-DDT	0.16	J	3.7	U	3.7	U	0.86	J	3.7	U
Aldrin	1.9	U	1.9	U	1.9	U	2	U	1.9	U
alpha-BHC	1.9	U	1.9	U	1.9	U	2	U	1.9	U
alpha-Chlordane	1.9	U	1.9	U	1.9	U	2	U	0.23	J

Appendix C
Table C-2. Summary of Subsurface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35B00101	35B00201	35B00301	35B00401	35B00501
Lab ID	S776201*20	S776201*18	S776201*16	S776391*8	S776391*21
Sampling Date	31-Oct-97	31-Oct-97	31-Oct-97	10-Nov-97	10-Nov-97
Aroclor-1016	37 U	37 U	37 U	38 U	37 U
Aroclor-1221	74 U	74 U	75 U	78 U	74 U
Aroclor-1232	37 U	37 U	37 U	38 U	37 U
Aroclor-1242	37 U	37 U	37 U	38 U	37 U
Aroclor-1248	37 U	37 U	37 U	38 U	37 U
Aroclor-1254	37 U	37 U	37 U	38 U	37 U
Aroclor-1260	37 U	37 U	37 U	38 U	37 U
beta-BHC	1.9 U	1.9 U	1.9 U	2 U	1.9 U
delta-BHC	1.9 U	0.1 J	1.9 U	2 U	1.9 U
Dieldrin	0.23 J	3.7 U	3.7 U	3.8 U	3.7 U
Endosulfan I	1.9 U	1.9 U	1.9 U	2 U	1.9 U
Endosulfan II	3.7 U	3.7 U	3.7 U	3.8 U	3.7 U
Endosulfan sulfate	3.7 U	3.7 U	3.7 U	3.8 U	3.7 U
Endrin	3.7 U	3.7 U	3.7 U	3.8 U	3.7 U
Endrin aldehyde	3.7 U	3.7 U	3.7 U	3.8 U	3.7 U
Endrin ketone	3.7 U	3.7 U	3.7 U	3.8 U	3.7 U
gamma-BHC (Lindane)	1.9 U	1.9 U	1.9 U	2 U	0.08 J
gamma-Chlordane	0.11 J	1.9 U	1.9 U	2 U	1.9 U
Heptachlor	0.07 J	1.9 U	1.9 U	2 U	1.9 U
Heptachlor epoxide	1.9 U	1.9 U	1.9 U	2 U	1.9 U
Methoxychlor	0.59 J	19 U	19 U	20 U	0.51 J
Toxaphene	190 U	190 U	190 U	200 U	190 U
Inorganics, mg/kg					
Aluminum	5290 J	3420 J	4640 J	3760	2910
Antimony	1.9 U	2.6 U	1.2 U	0.77 U	0.73 U
Arsenic	1.3 J	1.5 J	1.3 J	0.84 U	0.8 U
Barium	2.4 UJ	3.6 UJ	24.6 J	4.7 U	4.4 U
Beryllium	0.07 J	0.06 J	0.08 J	0.06 J	0.05 J
Cadmium	0.13 U	0.13 U	0.13 U	0.14 U	0.13 U
Calcium	4320	205 J	176 J	158 U	1010 U
Chromium	10.1	12.1	9.3	8.5	10.2
Cobalt	0.64 J	0.78 J	0.53 J	0.23 U	0.22 U
Copper	0.49 U	1 J	0.99 J	0.76 U	1.1 U
Iron	201 J	51.6 J	41.6 J	37.5	69
Lead	6.3 J	11.5 J	3 J	14.2	5.7
Magnesium	48.9 J	25.4 J	15.2 J	11.2 U	45.1 U
Manganese	1.5 U	0.38 U	0.25 U	0.58 U	0.83 U
Mercury	0.09	0.09	0.05 J	0.16	0.15
Nickel	20.9	0.75 U	0.54 U	0.53 U	0.51 U
Potassium	12 U	27.2 U	30.5 U	13.6 U	10.7 U
Selenium	1.3	0.58 U	0.94 J	0.6 U	0.58 U
Silver	0.69 J	1.1 J	0.67 U	0.7 U	0.67 U
Sodium	45.3 UJ	51 UJ	36 UJ	13.4 UJ	9 UJ
Thallium	1 U	1 U	1.1 U	1.1 U	1 U
Vanadium	1.4 J	0.87 J	1.1 J	0.54 J	0.43 J
Zinc	0.57 UJ	0.37 UJ	0.67 UJ	2.1 U	3.2 U
General Chemistry					
pH, units	NA	NA	NA	NA	8
TRPH, mg/kg	110	15	11	11	18

Appendix C
Table C-2. Summary of Subsurface Soil Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando Florida

NA = Identified parameter not analyzed.
Sample ID = Sample Identifier
Lab ID = Laboratory identifier

Units:

mg/kg milligrams per kilogram
ug/kg micrograms per kilogram
mg/L milligrams per liter
ug/L micrograms per liter

The following standard analytical data qualifiers have the following definitions:

U The analyte/compound was analyzed for but was not detected above the reported sample quantitation limit. The number preceding the U qualifier is the reported sample quantitation limit.
J The analyte/compound was positively identified and the associated numerical value is an estimated concentration of the analyte/compound in the sample.
UJ The analyte/compound was not detected above the reported sample quantitation limit. The reported quantitation limit, however, is approximate and may or may not represent the actual limit of quantitation necessary to accurately measure the analyte/compound in the sample.
R The sample results are rejected during data validation because of serious deficiencies in meeting quality control criteria.
D Reported concentration is from a dilution or reanalysis of the sample.

TABLE C-3

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Appendix C
Table C-3. Summary of Groundwater Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35G00101	35H00101	35G00201	35H00201	35G00301	35H00301	35G00401
Lab ID	S776298*3	S776298*8	S776298*2	S776298*7	S776298*1	S776298*6	S776298*4
Sampling Date	5-Nov-97	5-Nov-97	5-Nov-97	5-Nov-97	5-Nov-97	5-Nov-97	5-Nov-97
Volatile organics, ug/L							
1,1,1-Trichloroethane	1 U	NA	1 U	NA	1 U	NA	1 U
1,1,2,2-Tetrachloroethane	1 U	NA	1 U	NA	1 U	NA	1 U
1,1,2-Trichloroethane	1 U	NA	1 U	NA	1 U	NA	1 U
1,2-Dichlorobenzene	1 U	NA	1 U	NA	1 U	NA	1 U
1,3-Dichlorobenzene	1 U	NA	1 U	NA	1 U	NA	1 U
1,4-Dichlorobenzene	1 U	NA	1 U	NA	1 U	NA	1 U
1,1-Dichloroethane	1 U	NA	1 U	NA	1 U	NA	1 U
1,1-Dichloroethene	1 U	NA	1 U	NA	1 U	NA	1 U
1,2,4-Trichlorobenzene	1 UJ	NA	1 UJ	NA	1 UJ	NA	1 UJ
1,2-Dibromo-3-chloropropane	1 UJ	NA	1 UJ	NA	1 UJ	NA	1 UJ
1,2-Dibromoethane (EDB)	1 U	NA	1 U	NA	1 U	NA	1 U
1,2-Dichloroethane	1 U	NA	1 U	NA	1 U	NA	1 U
1,2-Dichloropropane	1 U	NA	1 U	NA	1 U	NA	1 U
2-Butanone	5 U	NA	5 U	NA	5 U	NA	5 U
2-Hexanone	5 U	NA	5 U	NA	5 U	NA	5 U
4-Methyl-2-pentanone	5 U	NA	5 U	NA	5 U	NA	5 U
Acetone	5 UR	NA	5 UR	NA	5 UR	NA	5 UR
Benzene	1 U	NA	1 U	NA	1 U	NA	1 U
Bromochloromethane	1 U	NA	1 U	NA	1 U	NA	1 U
Bromodichloromethane	1 U	NA	1 U	NA	1 U	NA	1 U
Bromoform	1 U	NA	1 U	NA	1 U	NA	1 U
Bromomethane	1 U	NA	1 U	NA	1 U	NA	1 U
Carbon disulfide	1 U	NA	1 U	NA	1 U	NA	1 U
Carbon tetrachloride	1 U	NA	1 U	NA	1 U	NA	1 U
Chlorobenzene	1 U	NA	1 U	NA	1 U	NA	1 U
Chloroethane	1 U	NA	1 U	NA	1 U	NA	1 U
Chloroform	1 U	NA	1 U	NA	1 U	NA	1 U
Chloromethane	1 U	NA	1 U	NA	1 U	NA	1 U
cis-1,2-Dichloroethene	1 U	NA	1 U	NA	1 U	NA	1 U
cis-1,3-Dichloropropene	1 U	NA	1 U	NA	1 U	NA	1 U
Dibromochloromethane	1 U	NA	1 U	NA	1 U	NA	1 U
Ethylbenzene	1 U	NA	1 U	NA	1 U	NA	1 U
Methylene chloride	2 U	NA	2 U	NA	12	NA	2
Styrene	1 U	NA	1 U	NA	1 U	NA	1 U
Tetrachloroethene	1 U	NA	1 U	NA	1 U	NA	1 U
Toluene	1 U	NA	1 U	NA	1 U	NA	1 U
trans-1,2-Dichloroethylene	1 U	NA	1 U	NA	1 U	NA	1 U
trans-1,3-Dichloropropene	1 U	NA	1 U	NA	1 U	NA	1 U
Trichloroethene	1 U	NA	1 U	NA	1 U	NA	1 U
Vinyl chloride	1 U	NA	1 U	NA	1 U	NA	1 U
Xylene (total)	1 U	NA	1 U	NA	1 U	NA	1 U
Semivolatile organics, ug/L							
2,2'-oxybis(1-Chloropropane)	10 U	NA	10 U	NA	10 U	NA	10 U
2,4,5-Trichlorophenol	25 U	NA	25 U	NA	25 U	NA	25 U
2,4,6-Trichlorophenol	10 U	NA	10 U	NA	10 U	NA	10 U
2,4-Dichlorophenol	10 U	NA	10 U	NA	10 U	NA	10 U
2,4-Dimethylphenol	10 U	NA	10 U	NA	10 U	NA	10 U
2,4-Dinitrophenol	25 U	NA	25 U	NA	25 U	NA	25 U
2,4-Dinitrotoluene	10 U	NA	10 U	NA	10 U	NA	10 U
2,6-Dinitrotoluene	10 U	NA	10 U	NA	10 U	NA	10 U
2-Chloronaphthalene	10 U	NA	10 U	NA	10 U	NA	10 U
2-Chlorophenol	10 U	NA	10 U	NA	10 U	NA	10 U
2-Methylnaphthalene	10 U	NA	10 U	NA	10 U	NA	10 U
2-Methylphenol	10 U	NA	10 U	NA	10 U	NA	10 U
2-Nitroaniline	25 U	NA	25 U	NA	25 U	NA	25 U

Appendix C
Table C-3. Summary of Groundwater Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35G00101		35H00101	35G00201		35H00201	35G00301		35H00301	35G00401	
Lab ID	S776298*3		S776298*8	S776298*2		S776298*7	S776298*1		S776298*6	S776298*4	
Sampling Date	5-Nov-97		5-Nov-97	5-Nov-97		5-Nov-97	5-Nov-97		5-Nov-97	5-Nov-97	
2-Nitrophenol	10	U	NA	10	U	NA	10	U	NA	10	U
3,3'-Dichlorobenzidine	10	U	NA	10	U	NA	10	U	NA	10	U
3-Methylphenol/4-Methylphenol	10	U	NA	10	U	NA	10	U	NA	10	U
3-Nitroaniline	25	U	NA	25	U	NA	25	U	NA	25	U
4,6-Dinitro-2-methylphenol	25	U	NA	25	U	NA	25	U	NA	25	U
4-Bromophenyl-phenylether	10	U	NA	10	U	NA	10	U	NA	10	U
4-Chloro-3-methylphenol	10	U	NA	10	U	NA	10	U	NA	10	U
4-Chloroaniline	10	U	NA	10	U	NA	10	U	NA	10	U
4-Chlorophenyl-phenylether	10	U	NA	10	U	NA	10	U	NA	10	U
4-Nitroaniline	25	U	NA	25	U	NA	25	U	NA	25	U
4-Nitrophenol	25	U	NA	25	U	NA	25	U	NA	25	U
Acenaphthene	10	U	NA	10	U	NA	10	U	NA	10	U
Acenaphthylene	10	U	NA	10	U	NA	10	U	NA	10	U
Anthracene	10	U	NA	10	U	NA	10	U	NA	10	U
Benzo(a)anthracene	10	U	NA	10	U	NA	10	U	NA	10	U
Benzo(a)pyrene	10	U	NA	10	U	NA	10	U	NA	10	U
Benzo(b)fluoranthene	10	U	NA	10	U	NA	10	U	NA	10	U
Benzo(g,h,i)perylene	10	U	NA	10	U	NA	10	U	NA	10	U
Benzo(k)fluoranthene	10	U	NA	10	U	NA	10	U	NA	10	U
bis(2-Chloroethoxy)methane	10	U	NA	10	U	NA	10	U	NA	10	U
bis(2-Chloroethyl)ether	10	U	NA	10	U	NA	10	U	NA	10	U
bis(2-Ethylhexyl)phthalate	10	U	NA	10	U	NA	10	U	NA	10	U
Butylbenzylphthalate	10	U	NA	10	U	NA	10	U	NA	10	U
Carbazole	10	U	NA	10	U	NA	10	U	NA	10	U
Chrysene	10	U	NA	10	U	NA	10	U	NA	10	U
Di-n-butylphthalate	10	U	NA	10	U	NA	10	U	NA	10	U
Di-n-octylphthalate	10	U	NA	10	U	NA	10	U	NA	10	U
Dibenz(a,h)anthracene	10	U	NA	10	U	NA	10	U	NA	10	U
Dibenzofuran	10	U	NA	10	U	NA	10	U	NA	10	U
Diethylphthalate	10	U	NA	10	U	NA	10	U	NA	10	U
Dimethylphthalate	10	U	NA	10	U	NA	10	U	NA	10	U
Fluoranthene	10	U	NA	10	U	NA	10	U	NA	10	U
Fluorene	10	U	NA	10	U	NA	10	U	NA	10	U
Hexachlorobenzene	10	U	NA	10	U	NA	10	U	NA	10	U
Hexachlorobutadiene	10	U	NA	10	U	NA	10	U	NA	10	U
Hexachlorocyclopentadiene	10	U	NA	10	U	NA	10	U	NA	10	U
Hexachloroethane	10	U	NA	10	U	NA	10	U	NA	10	U
Indeno(1,2,3-cd)pyrene	10	U	NA	10	U	NA	10	U	NA	10	U
Isophorone	10	U	NA	10	U	NA	10	U	NA	10	U
N-Nitroso-di-n-propylamine	10	U	NA	10	U	NA	10	U	NA	10	U
N-Nitrosodiphenylamine	10	U	NA	10	U	NA	10	U	NA	10	U
Naphthalene	10	U	NA	10	U	NA	10	U	NA	10	U
Nitrobenzene	10	U	NA	10	U	NA	10	U	NA	10	U
Pentachlorophenol	25	U	NA	25	U	NA	0.4	J	NA	25	U
Phenanthrene	10	U	NA	10	U	NA	10	U	NA	10	U
Phenol	10	U	NA	10	U	NA	10	U	NA	10	U
Pyrene	10	U	NA	10	U	NA	10	U	NA	10	U
Pesticides/PCBs, ug/L											
4,4'-DDD	0.1	U	NA	0.01	J	NA	0.1	U	NA	0.1	U
4,4'-DDE	0.1	U	NA	0.1	U	NA	0.1	U	NA	0.1	U
4,4'-DDT	0.1	U	NA	0.1	U	NA	0.1	U	NA	0.1	U
Aldrin	0.05	U	NA	0.05	U	NA	0.05	U	NA	0.05	U
alpha-BHC	0.05	U	NA	0.05	U	NA	0.05	U	NA	0.05	U
alpha-Chlordane	0.05	U	NA	0.05	U	NA	0.05	U	NA	0.05	U
Aroclor-1016	1	U	NA	1	U	NA	1	U	NA	1	U
Aroclor-1221	2	U	NA	2	U	NA	2	U	NA	2	U

Appendix C
Table C-3. Summary of Groundwater Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35G00101	35H00101	35G00201	35H00201	35G00301	35H00301	35G00401
Lab ID	S776298*3	S776298*8	S776298*2	S776298*7	S776298*1	S776298*6	S776298*4
Sampling Date	5-Nov-97	5-Nov-97	5-Nov-97	5-Nov-97	5-Nov-97	5-Nov-97	5-Nov-97
Aroclor-1232	1 U	NA	1 U	NA	1 U	NA	1 U
Aroclor-1242	1 U	NA	1 U	NA	1 U	NA	1 U
Aroclor-1248	1 U	NA	1 U	NA	1 U	NA	1 U
Aroclor-1254	1 U	NA	1 U	NA	1 U	NA	1 U
Aroclor-1260	1 U	NA	1 U	NA	1 U	NA	1 U
beta-BHC	0.05 U	NA	0.05 U	NA	0.05 U	NA	0.05 U
delta-BHC	0.05 U	NA	0.05 U	NA	0.05 U	NA	0.05 U
Dieldrin	0.1 UJ	NA	0.1 UJ	NA	0.1 UJ	NA	0.1 UJ
Endosulfan I	0.05 U	NA	0.05 U	NA	0.05 U	NA	0.05 U
Endosulfan II	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U
Endosulfan sulfate	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U
Endrin	0.1 UR	NA	0.1 UR	NA	0.1 UR	NA	0.1 UR
Endrin aldehyde	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U
Endrin ketone	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U
gamma-BHC (Lindane)	0.0046 J	NA	0.05 U	NA	0.05 U	NA	0.05 U
gamma-Chlordane	0.05 U	NA	0.05 U	NA	0.05 U	NA	0.05 U
Heptachlor	0.05 U	NA	0.05 U	NA	0.05 U	NA	0.14
Heptachlor epoxide	0.05 U	NA	0.05 U	NA	0.05 U	NA	0.05 U
Methoxychlor	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 UR
Toxaphene	5 U	NA	5 U	NA	5 U	NA	5 U
Inorganics, ug/L							
Aluminum	518	74.4 U	1810	44 U	246	38.8 U	105 J
Antimony	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	4.5 J	3.3 U
Arsenic	5.3 U	4.8 U	3.6 U	3.6 U	5.2 U	3.6 U	3.6 U
Barium	7.9 U	6.8 U	12.9 J	7 U	18.1 J	13.2 J	7.8 U
Beryllium	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Cadmium	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Calcium	12500	13600	10700	9900	8120	7870	4690 J
Chromium	2 U	2 U	3.4 J	2 U	2 U	2 U	2 U
Cobalt	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Copper	2.8 J	2.6 J	2.6 J	2.8 J	2.2 U	2.2 U	2.2 U
Iron	315	291	173	82.5 J	221	211	92.6 J
Lead	1.2 U	3.1	2.8 J	1.2 U	1.2 U	1.2 U	1.2 U
Magnesium	600 J	622 J	2270 J	2140 J	955 J	926 J	789 J
Manganese	9.7 U	10 U	19.4	17.9	4.2 U	3.6 U	3.7 U
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	2.3 U	2.6 J	3.7 J	2.8 J	2.3 U	2.3 U	2.3 U
Potassium	1390 J	1420 J	5470	5610	1930 J	1830 J	1410 J
Selenium	2.6 U	2.6 U	4.2 J	2.6 U	2.6 U	2.7 J	2.6 U
Silver	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Sodium	8690	8860	5380	5510	3310 J	3390 J	5040
Thallium	4.7 U	4.7 U	7.2 J	4.7 U	4.7 U	4.7 U	4.7 U
Vanadium	3.1 J	2.8 J	4.5 J	3.8 J	1.7 U	1.7 U	1.7 U
Zinc	3.3 U	10 J	4.6 U	3.3 U	3.7 U	5.2 U	4.6 U
General Chemistry, mg/L							
Suspended Solids	6	NA	5 U	NA	5 U	NA	5 U
TRPH	1 U	NA	1 U	NA	1 U	NA	1 U

Appendix C
Table C-3. Summary of Groundwater Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando, FL

Sample ID	35H00401	35G00501	35H00501	35G00501	35G00601	35G00701	35G00801
Lab ID	S776298*9	S776620*1	S776620*2	S881304*1	S881304*3	S881304*4	S881304*2
Sampling Date	5-Nov-97	20-Nov-97	20-Nov-97	6-Mar-98	6-Mar-98	6-Mar-98	6-Mar-98
Volatile organics, ug/L							
1,1,1-Trichloroethane	NA	1 U	NA	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	NA	1 U	NA	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	NA	1 U	NA	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	NA	1 U	NA	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	NA	1 U	NA	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	NA	1 U	NA	1 U	1 U	1 U	1 U
1,1-Dichloroethane	NA	1 U	NA	1 U	1 U	1 U	1 U
1,1-Dichloroethene	NA	1 U	NA	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	NA	1 UJ	NA	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	NA	1 UJ	NA	1 U	1 U	1 U	1 U
1,2-Dibromoethane (EDB)	NA	1 U	NA	1 U	1 U	1 U	1 U
1,2-Dichloroethane	NA	1 U	NA	1 U	1 U	1 U	1 U
1,2-Dichloropropane	NA	1 U	NA	1 U	1 U	1 U	1 U
2-Butanone	NA	5 U	NA	5 U	5 U	5 U	5 U
2-Hexanone	NA	5 U	NA	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	NA	5 U	NA	5 U	5 U	5 U	5 U
Acetone	NA	5 UR	NA	4 J	6	5 U	5 U
Benzene	NA	1 U	NA	1 U	1 U	1 U	1 U
Bromochloromethane	NA	1 U	NA	1 U	1 U	1 U	1 U
Bromodichloromethane	NA	1 U	NA	1 U	1 U	1 U	1 U
Bromoform	NA	1 U	NA	1 U	1 U	1 U	1 U
Bromomethane	NA	1 U	NA	1 U	1 U	1 U	1 U
Carbon disulfide	NA	1 U	NA	1 U	10	14	1 U
Carbon tetrachloride	NA	1 U	NA	1 U	1 U	1 U	1 U
Chlorobenzene	NA	1 U	NA	1 U	1 U	1 U	1 U
Chloroethane	NA	1 U	NA	1 U	1 U	1 U	1 U
Chloroform	NA	1 U	NA	1 U	1 U	1 U	1 U
Chloromethane	NA	1 U	NA	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	NA	1 U	NA	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	NA	1 U	NA	1 U	1 U	1 U	1 U
Dibromochloromethane	NA	1 U	NA	1 U	1 U	1 U	1 U
Ethylbenzene	NA	1 U	NA	1 U	1 U	1 U	1 U
Methylene chloride	NA	2 U	NA	2 U	2 U	2 U	2 U
Styrene	NA	1 U	NA	1 U	1 U	1 U	1 U
Tetrachloroethene	NA	1 U	NA	1 U	1 U	1 U	1 U
Toluene	NA	1 U	NA	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethylene	NA	1 U	NA	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NA	1 U	NA	1 U	1 U	1 U	1 U
Trichloroethene	NA	1 U	NA	1 U	1 U	1 U	1 U
Vinyl chloride	NA	1 U	NA	1 U	1 U	1 U	1 U
Xylene (total)	NA	1 U	NA	1 U	1 U	1 U	1 U
Semivolatile organics, ug/L							
2,2'-oxybis(1-Chloropropane)	NA	10 U	NA	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	NA	25 U	NA	25 U	25 U	25 U	25 U
2,4,6-Trichlorophenol	NA	10 U	NA	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	NA	10 U	NA	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	NA	10 U	NA	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	NA	25 UJ	NA	25 U	25 U	25 U	25 U
2,4-Dinitrotoluene	NA	10 U	NA	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	NA	10 U	NA	10 U	10 U	10 U	10 U
2-Chloronaphthalene	NA	10 U	NA	10 U	10 U	10 U	10 U
2-Chlorophenol	NA	10 U	NA	10 U	10 U	10 U	10 U
2-Methylnaphthalene	NA	10 U	NA	10 U	10 U	10 U	10 U
2-Methylphenol	NA	10 U	NA	10 U	10 U	10 U	10 U
2-Nitroaniline	NA	25 U	NA	25 U	25 U	25 U	25 U

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Table C-3. Summary of Groundwater Analytical Results
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Naval Training Center, Orlando
Orlando, FL

Sample ID	35H00401	35G00501	35H00501	35G00501	35G00601	35G00701	35G00801
Lab ID	S776298*9	S776620*1	S776620*2	S881304*1	S881304*3	S881304*4	S881304*2
Sampling Date	5-Nov-97	20-Nov-97	20-Nov-97	6-Mar-98	6-Mar-98	6-Mar-98	6-Mar-98
2-Nitrophenol	NA	10 U	NA	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	NA	10 U	NA	10 U	10 U	10 U	10 U
3-Methylphenol/4-Methylphenol	NA	10 U	NA	10 U	10 U	10 U	10 U
3-Nitroaniline	NA	25 U	NA	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	NA	25 U	NA	25 U	25 U	25 U	25 U
4-Bromophenyl-phenylether	NA	10 U	NA	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	NA	10 U	NA	10 U	10 U	10 U	10 U
4-Chloroaniline	NA	10 U	NA	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	NA	10 U	NA	10 U	10 U	10 U	10 U
4-Nitroaniline	NA	25 U	NA	25 U	25 U	25 U	25 U
4-Nitrophenol	NA	25 U	NA	25 U	25 U	25 U	25 U
Acenaphthene	NA	10 U	NA	10 U	10 U	10 U	10 U
Acenaphthylene	NA	10 U	NA	10 U	10 U	10 U	10 U
Anthracene	NA	10 U	NA	10 U	10 U	10 U	10 U
Benzo(a)anthracene	NA	10 U	NA	10 U	10 U	10 U	10 U
Benzo(a)pyrene	NA	10 U	NA	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	NA	10 U	NA	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	NA	10 UJ	NA	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	NA	10 U	NA	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	NA	10 U	NA	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	NA	10 U	NA	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	NA	10 U	NA	2 J	2 J	0.8 J	10 U
Butylbenzylphthalate	NA	10 U	NA	10 U	10 U	10 U	10 U
Carbazole	NA	10 U	NA	10 U	10 U	10 U	10 U
Chrysene	NA	10 U	NA	10 U	10 U	10 U	10 U
Di-n-butylphthalate	NA	10 U	NA	10 U	10 U	10 U	10 U
Di-n-octylphthalate	NA	10 UJ	NA	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	NA	10 UJ	NA	10 U	10 U	10 U	10 U
Dibenzofuran	NA	10 U	NA	10 U	10 U	10 U	10 U
Diethylphthalate	NA	10 U	NA	10 U	10 U	10 U	10 U
Dimethylphthalate	NA	10 U	NA	10 U	10 U	10 U	10 U
Fluoranthene	NA	0.5 J	NA	10 U	10 U	10 U	10 U
Fluorene	NA	10 U	NA	10 U	10 U	10 U	10 U
Hexachlorobenzene	NA	10 U	NA	10 U	10 U	10 U	10 U
Hexachlorobutadiene	NA	10 U	NA	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	NA	10 U	NA	10 U	10 U	10 U	10 U
Hexachloroethane	NA	10 U	NA	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	NA	10 UJ	NA	10 U	10 U	10 U	10 U
Isophorone	NA	10 U	NA	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	NA	10 U	NA	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	NA	10 U	NA	10 U	10 U	10 U	10 U
Naphthalene	NA	10 U	NA	10 U	10 U	10 U	10 U
Nitrobenzene	NA	10 U	NA	10 U	10 U	10 U	10 U
Pentachlorophenol	NA	25 U	NA	25 U	25 U	25 U	25 U
Phenanthrene	NA	10 U	NA	10 U	10 U	10 U	10 U
Phenol	NA	10 U	NA	10 U	11	10 U	7 J
Pyrene	NA	0.4 J	NA	10 U	10 U	10 U	10 U
Pesticides/PCBs, ug/L							
4,4'-DDD	NA	0.1 U	NA	NA	NA	NA	NA
4,4'-DDE	NA	0.1 U	NA	NA	NA	NA	NA
4,4'-DDT	NA	0.1 U	NA	NA	NA	NA	NA
Aldrin	NA	0.05 U	NA	NA	NA	NA	NA
alpha-BHC	NA	0.05 U	NA	NA	NA	NA	NA
alpha-Chlordane	NA	0.05 U	NA	NA	NA	NA	NA
Aroclor-1016	NA	1 U	NA	NA	NA	NA	NA
Aroclor-1221	NA	2 U	NA	NA	NA	NA	NA

Appendix C
Table C-3. Summary of Groundwater Analytical Results
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Naval Training Center, Orlando
Orlando, FL

Sample ID	35H00401		35G00501		35H00501		35G00501		35G00601		35G00701		35G00801	
Lab ID	S776298*9		S776620*1		S776620*2		S881304*1		S881304*3		S881304*4		S881304*2	
Sampling Date	5-Nov-97		20-Nov-97		20-Nov-97		6-Mar-98		6-Mar-98		6-Mar-98		6-Mar-98	
Aroclor-1232	NA		1	U	NA		NA		NA		NA		NA	
Aroclor-1242	NA		1	U	NA		NA		NA		NA		NA	
Aroclor-1248	NA		1	U	NA		NA		NA		NA		NA	
Aroclor-1254	NA		1	U	NA		NA		NA		NA		NA	
Aroclor-1260	NA		1	U	NA		NA		NA		NA		NA	
beta-BHC	NA		0.05	U	NA		NA		NA		NA		NA	
delta-BHC	NA		0.05	U	NA		NA		NA		NA		NA	
Dieldrin	NA		0.1	U	NA		NA		NA		NA		NA	
Endosulfan I	NA		0.05	U	NA		NA		NA		NA		NA	
Endosulfan II	NA		0.1	U	NA		NA		NA		NA		NA	
Endosulfan sulfate	NA		0.1	U	NA		NA		NA		NA		NA	
Endrin	NA		0.1	U	NA		NA		NA		NA		NA	
Endrin aldehyde	NA		0.1	U	NA		NA		NA		NA		NA	
Endrin ketone	NA		0.1	U	NA		NA		NA		NA		NA	
gamma-BHC (Lindane)	NA		0.05	U	NA		NA		NA		NA		NA	
gamma-Chlordane	NA		0.05	U	NA		NA		NA		NA		NA	
Heptachlor	NA		0.05	U	NA		NA		NA		NA		NA	
Heptachlor epoxide	NA		0.05	U	NA		NA		NA		NA		NA	
Methoxychlor	NA		0.5	U	NA		NA		NA		NA		NA	
Toxaphene	NA		5	U	NA		NA		NA		NA		NA	
Inorganics, ug/L														
Aluminum	35.9	U	93.2	J	59.7	J	NA		NA		NA		NA	
Antimony	3.3	U	3.3	U	3.3	U	NA		NA		NA		NA	
Arsenic	3.8	U	3.6	U	3.6	U	NA		NA		NA		NA	
Barium	7	U	8.2	U	7.2	U	NA		NA		NA		NA	
Beryllium	0.2	U	0.39	U	0.34	U	NA		NA		NA		NA	
Cadmium	0.6	U	0.6	U	0.6	U	NA		NA		NA		NA	
Calcium	4630	J	57200		55100		NA		NA		NA		NA	
Chromium	2	U	2	U	2	U	NA		NA		NA		NA	
Cobalt	1	U	1.8	J	1	U	NA		NA		NA		NA	
Copper	2.2	U	2.2	U	2.2	U	NA		NA		NA		NA	
Iron	68.5	J	35.3	U	35.3	U	NA		NA		NA		NA	
Lead	1.2	U	1.2	U	1.2	U	NA		NA		NA		NA	
Magnesium	751	J	2200	J	2120	J	NA		NA		NA		NA	
Manganese	3.5	U	1.3	U	0.94	U	NA		NA		NA		NA	
Mercury	0.1	U	0.1	U	0.1	U	NA		NA		NA		NA	
Nickel	2.3	U	2.3	U	2.3	U	NA		NA		NA		NA	
Potassium	1320	J	3480	J	3380	J	NA		NA		NA		NA	
Selenium	3.2	J	2.6	U	2.6	U	NA		NA		NA		NA	
Silver	3	U	3	U	3	U	NA		NA		NA		NA	
Sodium	4820	J	14600	J	14900	J	NA		NA		NA		NA	
Thallium	4.7	U	4.7	U	4.7	U	NA		NA		NA		NA	
Vanadium	1.7	U	2.2	J	2	J	NA		NA		NA		NA	
Zinc	4.1	U	4.5	U	4.5	U	NA		NA		NA		NA	
General Chemistry, mg/L														
Suspended Solids	NA		5	U	NA		NA		NA		NA		NA	
TRPH	NA		1	U	NA		1	U	1	U	1	U	1	U

Appendix C
Table C-3. Summary of Groundwater Analytical Results
Study Area 35

Naval Training Center, Orlando
Orlando Florida

NA = Identified parameter not analyzed.
Sample ID = Sample Identifier
Lab ID = Laboratory identifier

Units:

mg/kg milligrams per kilogram
ug/kg micrograms per kilogram
mg/L milligrams per liter
ug/L micrograms per liter

The following standard analytical data qualifiers have the following definitions:

U The analyte/compound was analyzed for but was not detected above the reported sample quantitation limit. The number preceding the U qualifier is the reported sample quantitation limit.
J The analyte/compound was positively identified and the associated numerical value is an estimated concentration of the analyte/compound in the sample.
UJ The analyte/compound was not detected above the reported sample quantitation limit. The reported quantitation limit, however, is approximate and may or may not represent the actual limit of quantitation necessary to accurately measure the analyte/compound in the sample.
R The sample results are rejected during data validation because of serious deficiencies in meeting quality control criteria.
D Reported concentration is from a dilution or reanalysis of the sample.

APPENDIX D

WATER LEVEL AND SURVEY DATA, STUDY AREA 35

NTC, ORLANDO
WATER LEVEL AND SURVEY DATA
FOR MONITORING WELLS
STUDY AREA 35

FEATURE	NORTHING *	EASTING *	Elev. Top of Casing	Elev. Ground Surface	Depth to Groundwater	Elev. Groundwater (January 1999)
OLD3501	1,538,226.83	551,539.26	103.13	103.4	7.75	95.38
OLD3502	1,538,211.24	551,662.72	103.12	103.3	8.31	94.81
OLD3503	1,538,086.22	551,860.95	101.09	101.4	7.51	93.58
OLD3504	1,538,074.25	551,640.89	101.84	102.1	7.33	94.51
OLD3505	1,538,466.26	551,798.20	105.30	103.9	NR	--
	* NAD 1983 Florida East Zone					
	Note: All parameters are in feet.					

SHEET ____ OF ____

JOB NO ____

DATE ____

COMPUTED BY ____

CHECKED BY ____

Harding Lawson Associates
Engineering
and
Environmental Services

PROJECT SA 35

SUBJECT 1-6/48 GW elev.

$$\frac{(95.38 - 94.81)}{x} = \frac{(95.38 - 94.51)}{185'}$$

$$\frac{0.57}{x} = \frac{0.87}{185'}$$

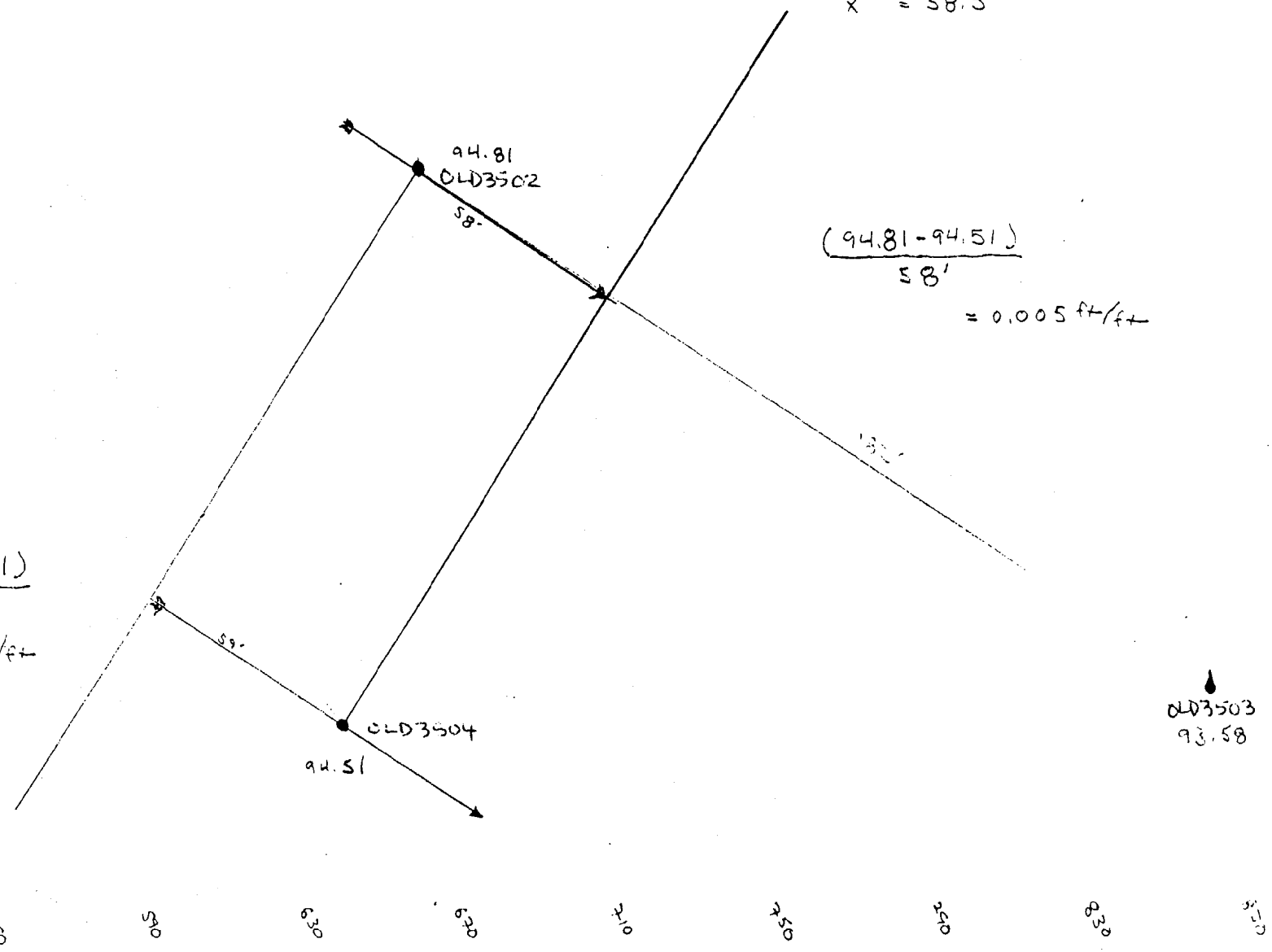
$$x = 121.2'$$

$$\frac{(94.81 - 94.51)}{x} = \frac{(94.81 - 93.58)}{240'}$$

$$\frac{0.3}{x} = \frac{1.23}{240'}$$

$$x = 58.5'$$

N 1" = 40'



$$\frac{(94.81 - 94.51)}{59'} = 0.005 \text{ ft/ft}$$

$$\frac{(94.81 - 94.51)}{58'} = 0.005 \text{ ft/ft}$$

APPENDIX E

COMPLETION REPORT, INTERIM REMEDIAL ACTION ENVIRONMENTAL DETACHMENT CHARLESTON, STUDY AREA 35

STUDY AREA 35

1. INTRODUCTION

1.1 STUDY AREA 35

SA 35 is located on the Main base, Naval Training Center, Orlando (Figure 1). Most of the site consists of a large paved parking area and Buildings 2078 and 2079. Building 2078 is a former aircraft hangar used since 1968 for vehicle maintenance and Building 2079 was used to store tires, batteries, and hazardous materials (Figure 2). See Figures 3, 4, and 5 for the locations of excavation areas "A" thru "T" in SA 35.

1.2 SA 35 INTERIM REMEDIAL ACTION

SOUTHDIV tasked the DET to perform an IRA for excavation areas "A" thru "T". The objective of the IRA was to excavate and dispose of soil contaminated with Total Recoverable Petroleum Hydrocarbons (TRPH) and/or arsenic. The excavation was to continue until the sampling program indicated with reasonable confidence that the concentrations of contaminants at the site were less than residential limits specified by FDEP SCG, dated 30 April 1998 or USEPA Region III, dated 01 October 1998, whichever specifies the stricter criteria.

1.2.1 SA 35 Interim Remedial Action Execution Summary

The execution of this IRA is discussed in the following sections:

1.2.1.1 SA 35 Area A

The execution of this IRA consisted of excavating an area approximately 9′ x 25′ to a depth of 2′ at HLA sample point 35S005 (Figure 3). Soil removed from the site was characterized as non-hazardous and was sent to a treatment facility for incineration. Confirmation samples were collected from the sidewalls upon completion of the excavation and tested for TRPH and arsenic. The results of these samples were all less than the RGOs except for the sample along the side of Building 2079 (sample SA35SA11) as shown in Figure 6. Sample SA35SA11 had a result of 6.4

parts per million (ppm) of arsenic. The OPT instructed the DET not to excavate under Building 2079.

1.2.1.2 SA 35 Area B

The execution of this IRA consisted of the removal of asphalt and the excavation of an area approximately 10′ x 35′ to a depth of 2′ at old monitoring well OLD-35-2 (Figure 3). Soil removed from the site was characterized as non-hazardous and sent to a treatment facility for incineration. Confirmation samples were collected from the sidewalls upon completion of the excavation and tested for TRPH and arsenic. The results of these samples were all less than the RGOs.

1.2.1.3 SA 35 Area C

The execution of this IRA consisted of the extraction of a hydraulic lift, removal of asphalt, and the excavation of an area approximately 20′ x 31′ to a depth of 9′ located north of Building 2078 (Figure 3). Soil removed from the site was characterized as non-hazardous and was sent to a treatment facility for incineration. Confirmation samples were collected from the sidewalls at a depth of 2′ and 8′upon completion of the excavation and tested for TRPH. The results of these samples were all less than the RGOs.

1.2.1.4 SA 35 Area D

The execution of this IRA consisted of the extraction of a hydraulic lift, removal of concrete, and the excavation of an area approximately 23′ x 30′ to a depth of 9′ located on the east side of the interior of Building 2078 (Figure 4). Soil removed from the site was characterized as non-hazardous and was sent to a treatment facility for incineration. Confirmation samples were collected from the sidewalls at a depth of 2′ and 8′upon completion of the excavation and tested for TRPH. The results of these samples were all less than the RGOs.

1.2.1.5 SA 35 Area E

The execution of this IRA consisted of the extraction of three hydraulic lifts, removal of concrete, and the excavation of an area approximately 30′ x 48′ to a depth of 9′ located on the west side of the interior of Building 2078 (Figure 4). Soil removed from the site was characterized as non-hazardous and was sent to a treatment facility for incineration. Confirmation samples were collected from the sidewalls at a depth of 2′ and 8′upon completion of the excavation and tested for TRPH and arsenic. The results of these samples were all less than the RGOs.

1.2.1.6 SA 35 Area F

Cancelled see section 2.3.

1.2.1.7 SA 35 Area G

The execution of this IRA consisted of the removal of asphalt and excavating an area approximately 5′ x 5′ to a depth of 2′ at monitoring well OLD-35-01 (Figure 5). Soil removed from the site was characterized as non-hazardous and was sent to a treatment facility for incineration. Confirmation samples were collected from the sidewalls upon completion of the excavation and tested for arsenic. The results of these samples were all less than the RGOs.

1.2.1.8 SA 35 Area H

The execution of this IRA consisted of the removal of asphalt and excavating an area approximately 10′ x 15′ to a depth of 2′ at sample point 35S007 (Figure 5). Soil removed from the site was characterized as non-hazardous and was sent to a treatment facility for incineration. Confirmation samples were collected from the sidewalls upon completion of the excavation and tested for arsenic. The results of these samples were all less than the RGOs.

1.2.1.9 SA 35 Area I

The execution of this IRA consisted of the removal of asphalt and excavating an area approximately 10′ x 15′ to a depth of 2′ at sample point 35S008 (figure 5). Soil removed from the site was characterized as non-hazardous and was sent to a treatment facility for incineration. Confirmation samples were collected from the sidewalls upon completion of the excavation and tested for arsenic. The results of these samples were all less than the RGOs.

2.0 INTERIM REMEDIAL ACTION EXCECUTION

2.1 ACTIONS PERFORMED BY THE INTERIM REMEDIAL ACTION WORK PLAN

Actions performed are listed below

- Collection of waste characterization samples
- Removal and disposal of asphalt and concrete
- Extraction and removal of hydraulic lifts
- Excavation and disposal of approximately 1,159 tons of soil
- Collection of confirmatory samples along each sidewall for analysis of TRPH and/or arsenic
- Restoration of sites by backfilling, grading to surrounding area, and seeding

2.2 OBSERVATIONS NOTES

2.2.1 Soil Conditions

From ground surface to the bottom of the excavation the soil was dark silty sand.

2.3 PLAN MODIFICATIONS AND JUSTIFICATION

- Informed the OPT that sample SA35SA11 located along the north side of Building 2079 had a result of 6.4 parts per million of arsenic. The OPT instructed the DET not to excavate under Building 2079.

- The OPT instructed the DET not to excavate SA 35 area "F" on April 27, 1999.

3.0 INTERIM REMEDIAL ACTION OUTCOME

3.1 SITE CONDITIONS FOLLOWING COMPLETION OF WORK

Following completion of work, the DET had removed 1,159 tons of TRPH and/or arsenic contaminated soil. The site was backfilled, graded to surrounding area and seeded. Site photographs are included in Appendix D1.

4.0 SAMPLING

4.1 CONFIRMATION SAMPLING

Confirmation sampling was performed as follows.

4.1.1 SA 35 Area A

Upon completion of work a confirmation sample was collected on each sidewall and tested for TRPH and arsenic (Figure 6). See appendix D2 for sampling documentation.

4.1.2 SA 35 Area B

Upon completion of work a confirmation sample was collected on each sidewall and tested for TRPH and arsenic (Figure 7). See appendix D2 for sampling documentation.

4.1.3 SA 35 Area C

Upon completion of work confirmation samples were collected from each sidewall at a depth of 2′ and 8′ and tested for TRPH (Figure 8). See appendix D2 for sampling documentation.

4.1.4 SA 35 Area D

Upon completion of work confirmation samples were collected from each sidewall at a depth of 2′ and 8′ and tested for TRPH (Figure 9). See appendix D2 for sampling documentation.

4.1.5 SA 35 Area E

Upon completion of work confirmation samples were collected from each sidewall at a depth of 2′ and 8′ and tested for TRPH and arsenic (Figure 10). See appendix D2 for sampling documentation.

4.1.6 SA 35 Area F

Cancelled see section 2.3.

4.1.7 SA 35 Area G

Upon completion of work a confirmation sample was taken on each sidewall and tested for and arsenic (Figure 11). See appendix D2 for sampling documentation.

4.1.8 SA 35 Area H Upon completion of work a confirmation sample was taken on each sidewall and tested for and arsenic (Figure 12). See appendix D2 for sampling documentation.

4.1.9 SA 35 Area I Upon completion of work a confirmation sample was taken on each sidewall and tested for and arsenic (Figure 13). See appendix D2 for sampling documentation.

4.2 WASTE CHARACTERIZATION SAMPLING Three waste characterization (samples SA35009, SA35013, & SA35015) samples were taken and analyzed for TCLP metals and one waste characterization (sample SPROT0153-1) was taken and analyzed for TCLP lead. See appendix D2 for sampling documentation.

5.0 WASTE GENERATION

5.1 Non-Hazardous Waste

A total of 1,159 tons of non-hazardous TRPH and/or arsenic soil was disposed of to a permitted treatment, storage and disposal facility. Waste Manifests are in appendix D3.

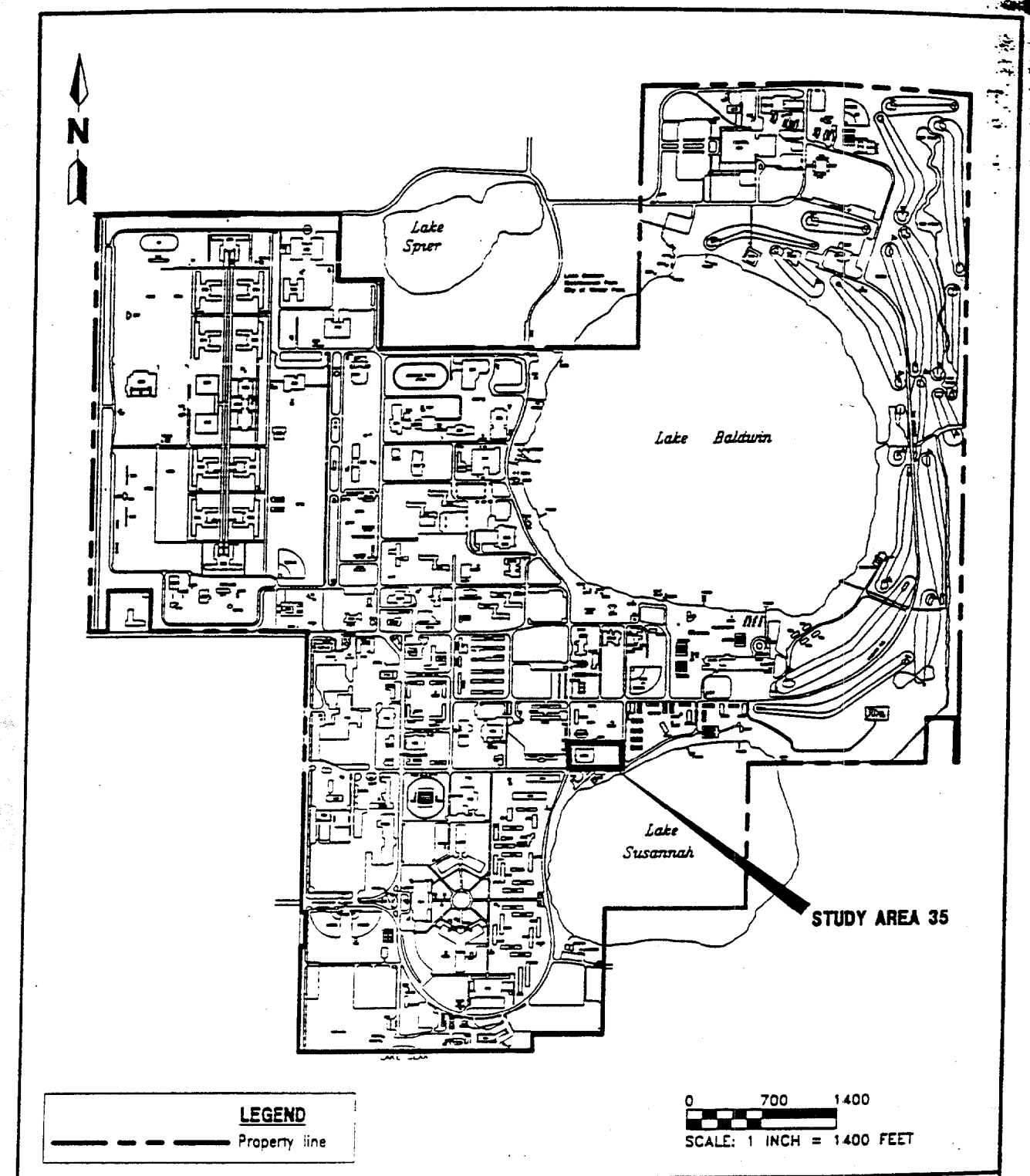


FIGURE 1
LOCATION OF STUDY AREA 35

BASE REALIGNMENT AND CLOSURE WORK PLAN FOR INTERIM REMEDIAL ACTION, STUDY AREA 35

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

K:\02530\02530-04\WKP\02530771.DWG PDP-VC 09/15/98 14:41:06 AutoCAD R14

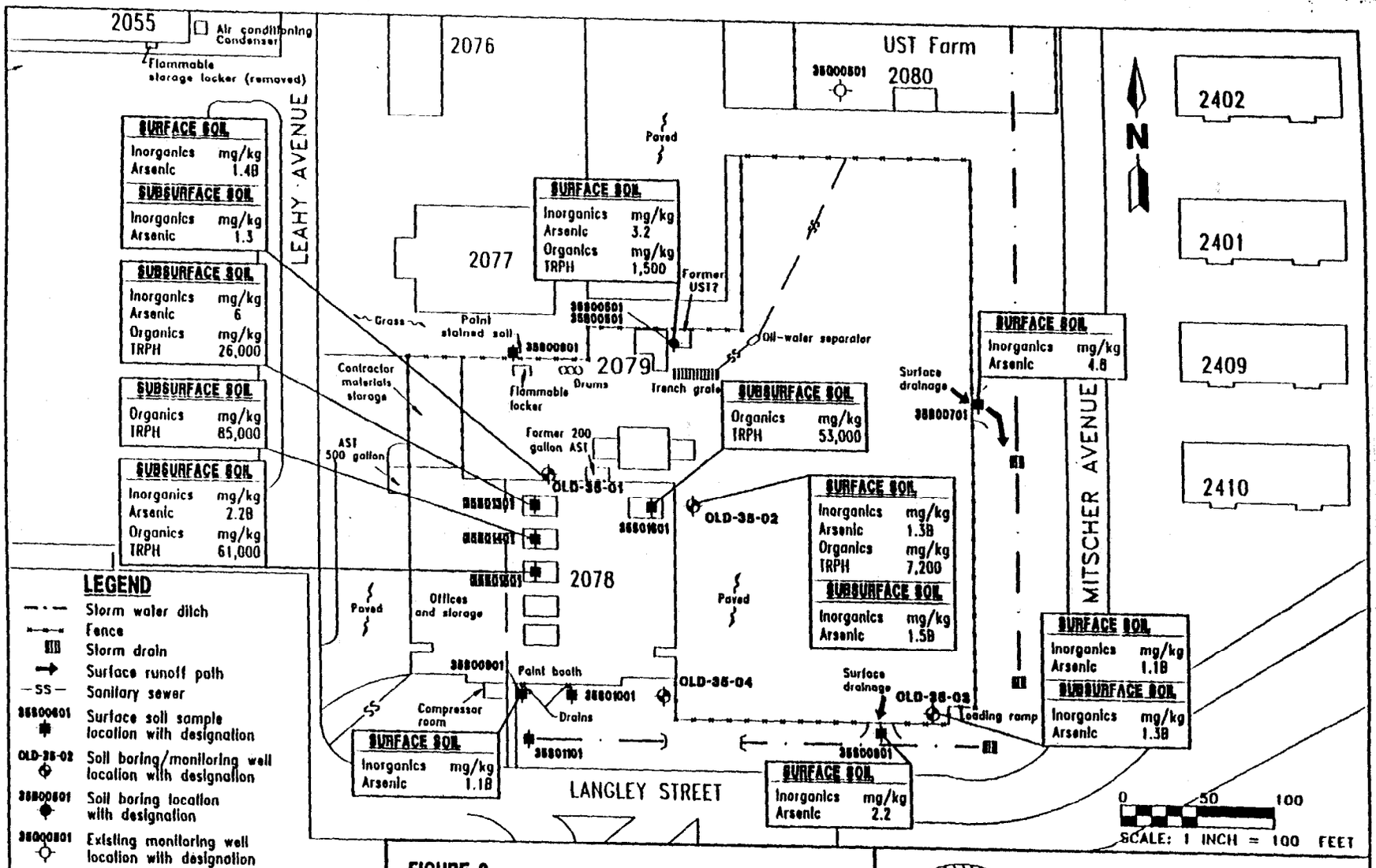


FIGURE 2
SAMPLING LOCATIONS WITH SCREENING CRITERIA EXCEEDANCES, BUILDINGS 2078 AND 2079, VEHICLE MAINTENANCE FACILITY MAIN BASE, GROUP V STUDY AREAS

X:\02530\02530-04\WKP\02530772.DWG, VC-VC 09/15/98 09:23:28, AutoCAD R14

BASE REALIGNMENT AND CLOSURE WORK PLAN FOR INTERIM REMEDIAL ACTION, STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA

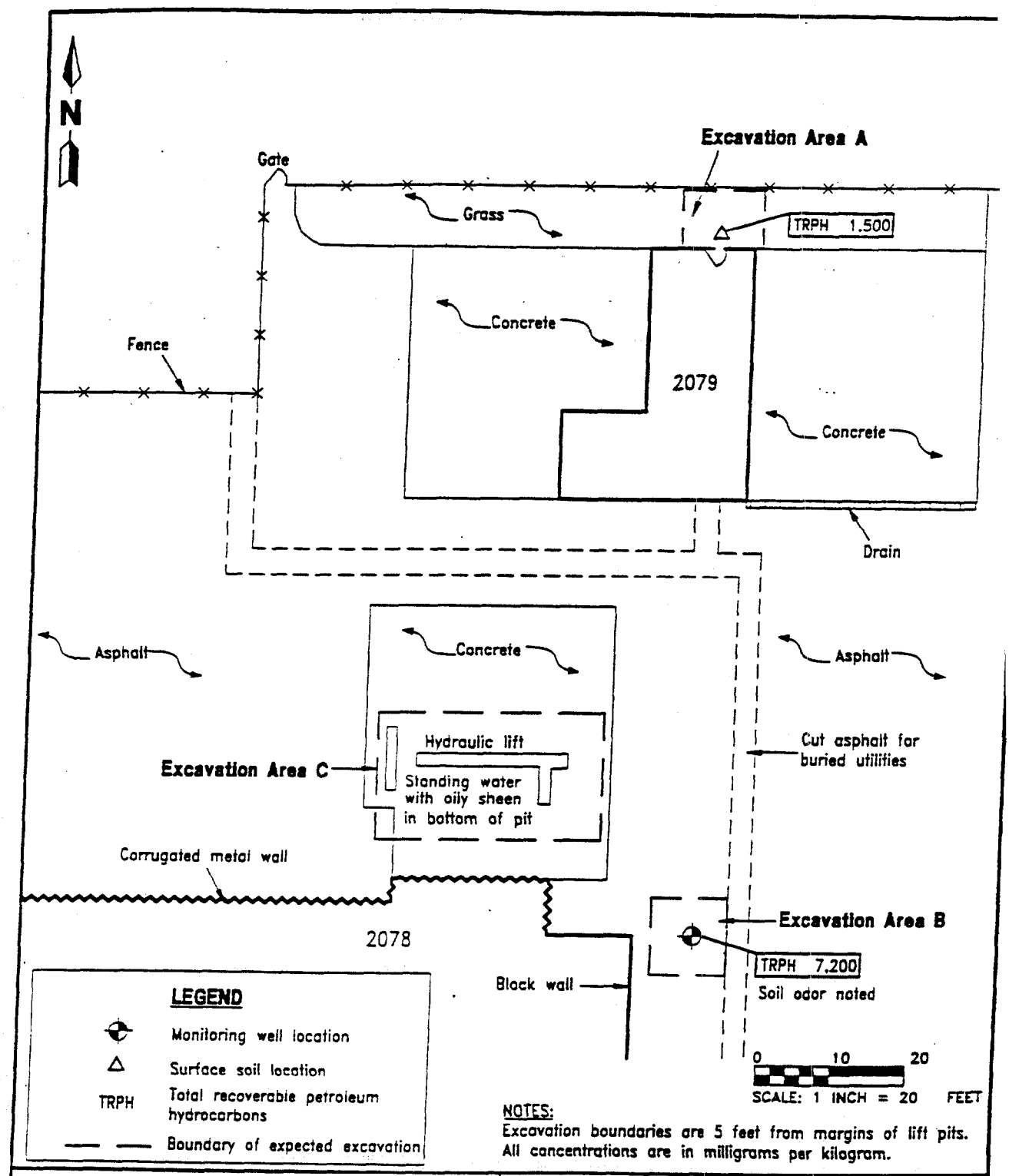
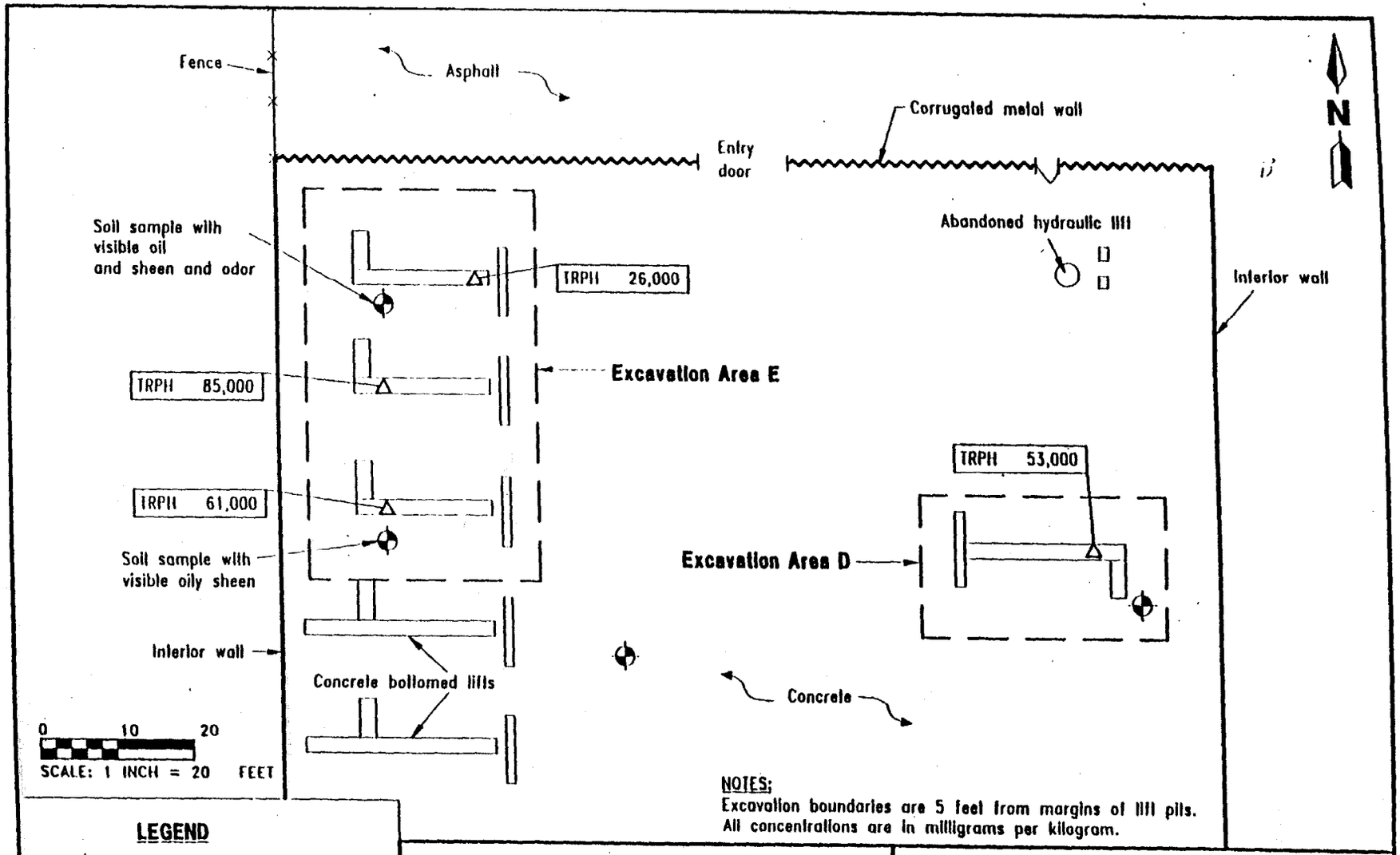


FIGURE 3
RECOMMENDED EXCAVATIONS EXTERIOR OF BUILDING 2078

BASE REALIGNMENT AND CLOSURE WORK PLAN FOR INTERIM REMEDIAL ACTION, STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA



NOTES:
Excavation boundaries are 5 feet from margins of lift pits.
All concentrations are in milligrams per kilogram.

LEGEND

- Monitoring well location
- Surface soil location
- TRPH — Total recoverable petroleum hydrocarbons
- Boundary of expected excavation

FIGURE 4
RECOMMENDED EXCAVATIONS INTERIOR OF BUILDING 2078

K:\02530\02530-04\WKP\02530774.DWG, VC-VC 09/16/98 09:18:24, AutoCAD R14

BASE REALIGNMENT AND CLOSURE WORK PLAN FOR INTERIM REMEDIAL ACTION, STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA

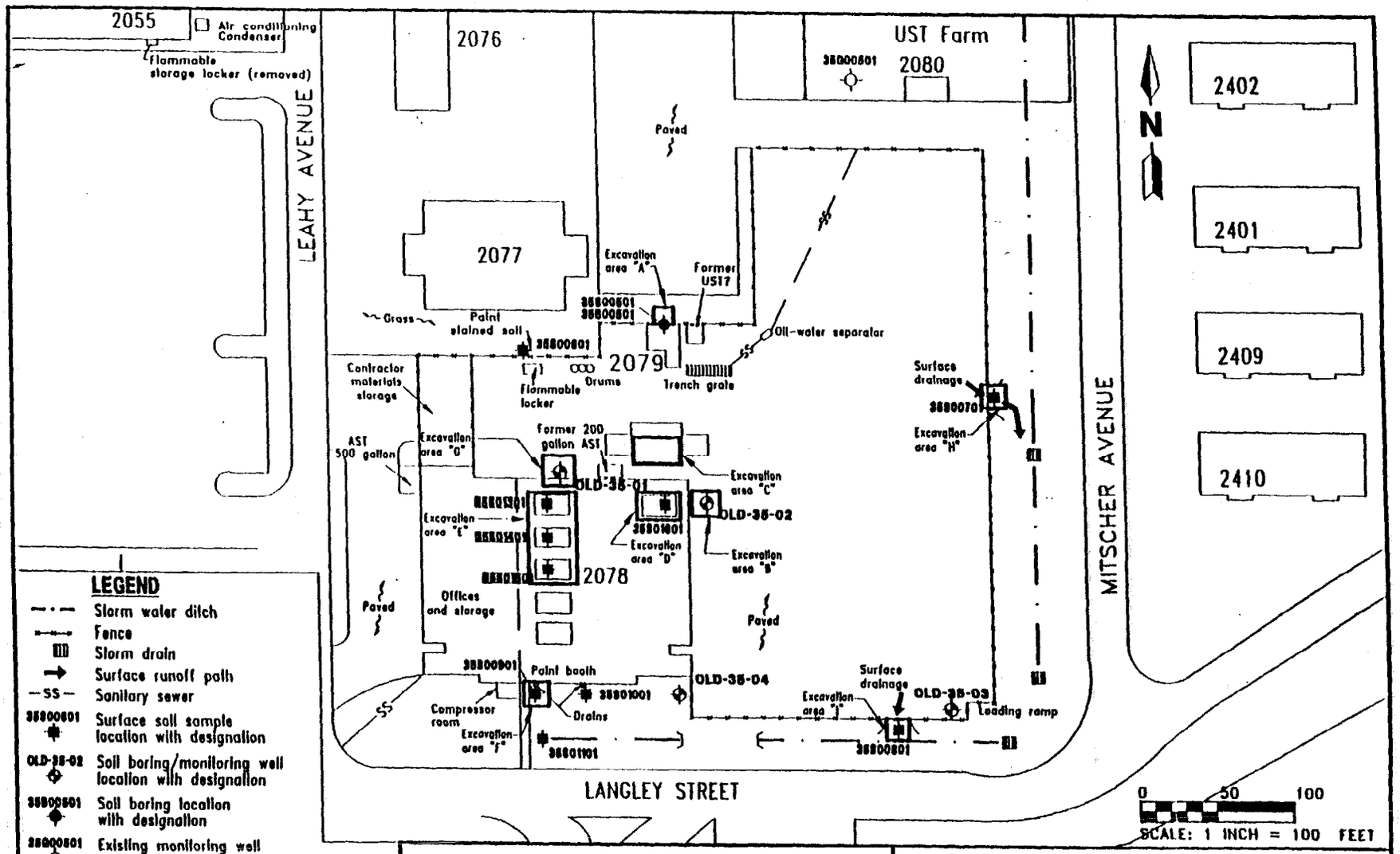
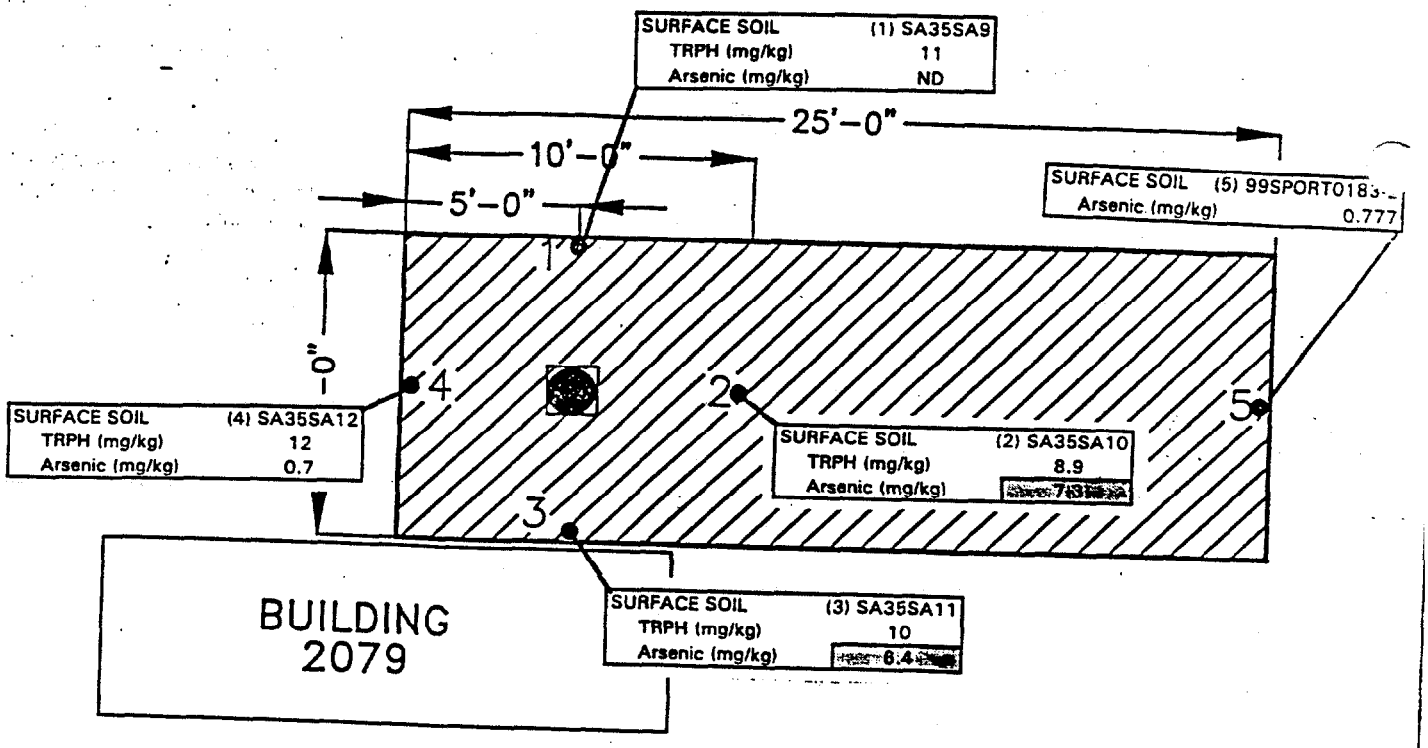


FIGURE 5
RECOMMENDED EXCAVATIONS
STUDY AREA 35

BASE REALIGNMENT AND CLOSURE WORK PLAN FOR INTERIM REMEDIAL ACTION, STUDY AREA 35

NAVAL TRAINING CENTER ORLANDO, FLORIDA

FINAL DRAFT



NOTE: Exceedances of residential SCTLs are bolded and shaded.

LEGEND

1 ● CONFIRMATORY SAMPLE ID SA35SA9

2 ● CONFIRMATORY SAMPLE ID SA35SA10

3 ● CONFIRMATORY SAMPLE ID SA35SA11

4 ● CONFIRMATORY SAMPLE ID SA35SA12

5 ● CONFIRMATORY SAMPLE ID 99SPORT0183-2

SAMPLE POINT 35S005

EXCAVATED TO 2 FEET DEEP

ENVIRONMENTAL DETACHMENT CHARLESTON
SOUTH CAROLINA

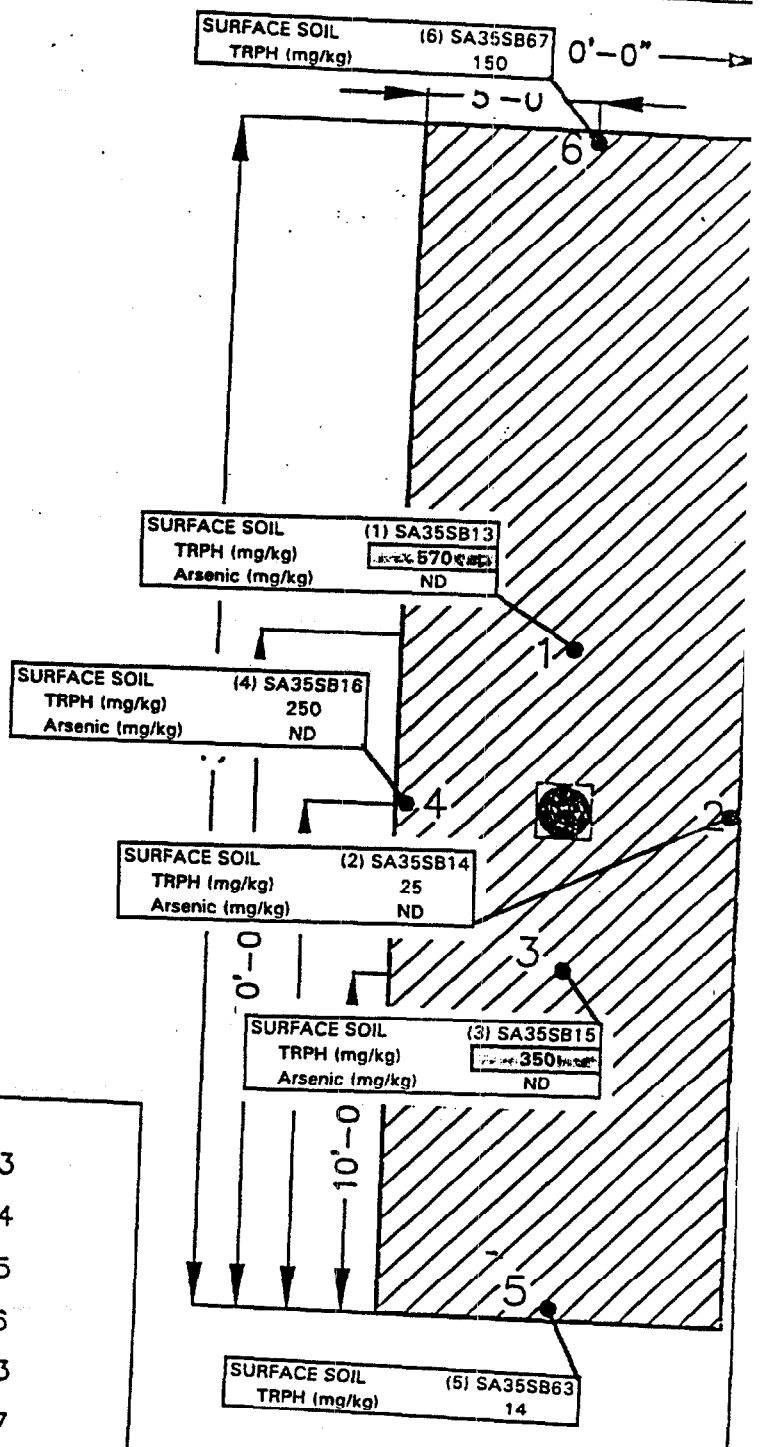
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

FIGURE 6
NAVAL TRAINING CENTER ORLANDO SA 35 AREA A
EXCAVATION BOUNDARIES AND
CONFIRMATORY SAMPLE LOCATIONS

DATE:	PREPARED BY:	REV
13 AUGUST 1999	A. J. MOYER	–

SCALE: NONE

SHEET: –



NOTE: Exceedances of residential SCTLs are bolded and shaded.

LEGEND

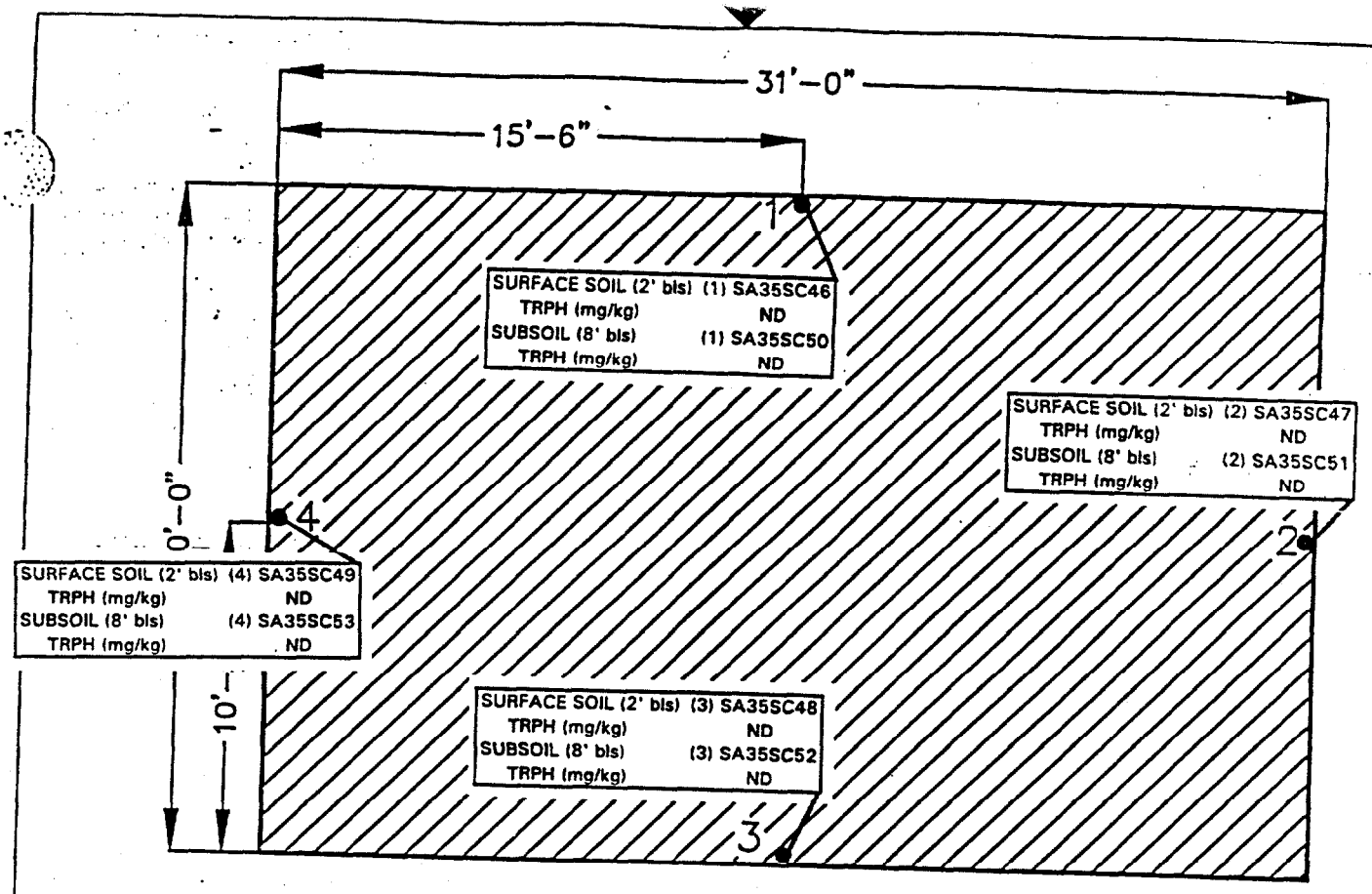
1 ● CONFIRMATORY SAMPLE ID SA35SB13
2 ● CONFIRMATORY SAMPLE ID SA35SB14
3 ● CONFIRMATORY SAMPLE ID SA35SB15
4 ● CONFIRMATORY SAMPLE ID SA35SB16
5 ● CONFIRMATORY SAMPLE ID SA35SB63
6 ● CONFIRMATORY SAMPLE ID SA35SB67
MONITORING WELL OLD-35-2
EXCAVATED TO 2 FEET DEEP

ENVIRONMENTAL DETACHMENT CHARLESTON
SOUTH CAROLINA

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

FIGURE 7
NAVAL TRAINING CENTER ORLANDO SA 35 AREA B
EXCAVATION BOUNDARIES AND
CONFIRMATORY SAMPLE LOCATIONS

DATE:	PREPARED BY:	REV
15 AUGUST 1999	A. J. MOYER	–
SCALE: NONE		SHEET: –



LEGEND

1 ● CONFIRMATORY SAMPLE ID SA35SC46 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SC50 DEPTH OF 8'

2 ● CONFIRMATORY SAMPLE ID SA35SC47 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SC51 DEPTH OF 8'

3 ● CONFIRMATORY SAMPLE ID SA35SC48 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SC52 DEPTH OF 8'

4 ● CONFIRMATORY SAMPLE ID SA35SC49 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SC53 DEPTH OF 8'

NOTE: Exceedances of residential SCTLs are bolded and shaded.
(There were no exceedances in the confirmation samples).

EXCAVATED TO 9 FEET DEEP

N

ENVIRONMENTAL DETACHMENT CHARLESTON
SOUTH CAROLINA

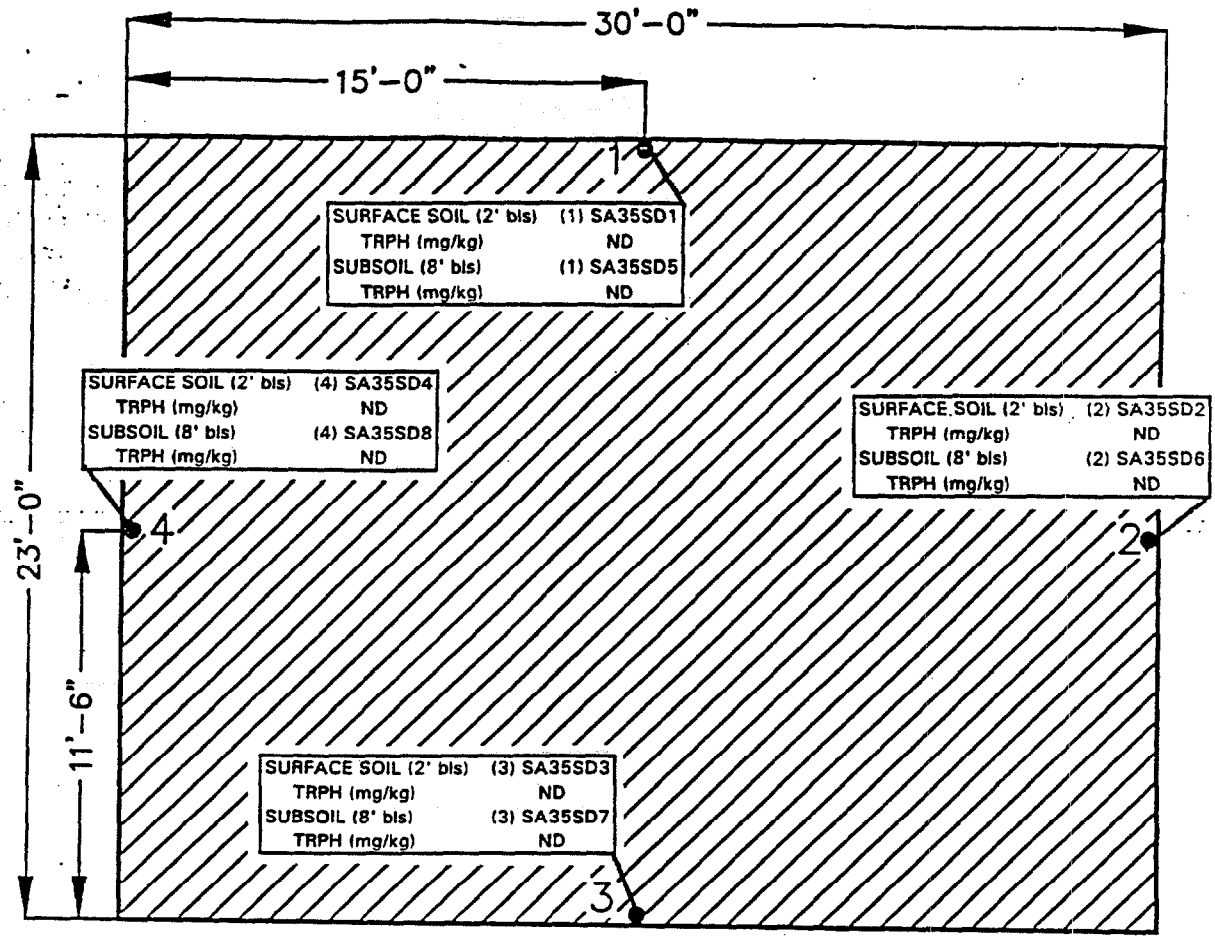
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2105

FIGURE 8
NAVAL TRAINING CENTER ORLANDO SA 35 AREA C
EXCAVATION BOUNDARIES AND
CONFIRMATORY SAMPLE LOCATIONS

DATE:	PREPARED BY:	REV
15 AUGUST 1999	A. J. MOYER	–

SCALE: NONE

SHEET: –



N

LEGEND

1 ● CONFIRMATORY SAMPLE ID SA35SD1 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SD5 DEPTH OF 8'

2 ● CONFIRMATORY SAMPLE ID SA35SD2 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SD6 DEPTH OF 8'

3 ● CONFIRMATORY SAMPLE ID SA35SD3 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SD7 DEPTH OF 8'

4 ● CONFIRMATORY SAMPLE ID SA35SD4 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SD8 DEPTH OF 8'

EXCAVATED TO 9 FEET DEEP

NOTE: Exceedances of residential SCTLs are bolded and shaded.
(There were no exceedances in the confirmation samples).

ENVIRONMENTAL DETACHMENT CHARLESTON
SOUTH CAROLINA

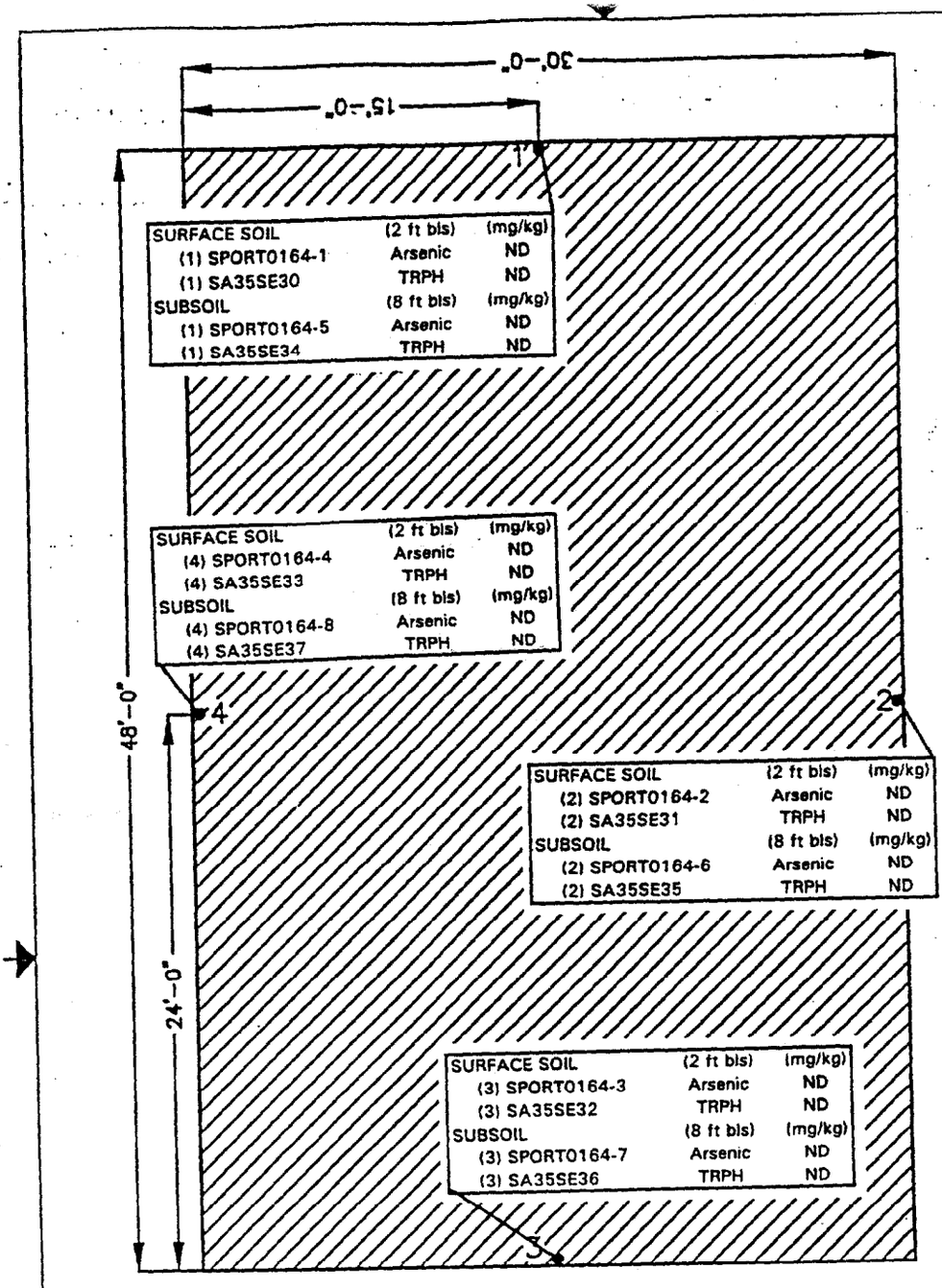
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

FIGURE 9
NAVAL TRAINING CENTER ORLANDO SA 35 AREA D
EXCAVATION BOUNDARIES AND
CONFIRMATORY SAMPLE LOCATIONS

DATE:	PREPARED BY:	REV
15 AUGUST 1999	A. J. MOYER	–

SCALE: NONE

SHEET: –



ENVIRONMENTAL DETACHMENT CHARLESTON
1881 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29406-2104

FIGURE 10
NAVAL TRAINING CENTER ORLANDO SA 35 AREA E
EXCAVATION BOUNDARIES AND
CONFIRMATORY SAMPLE LOCATIONS

DATE 15 AUGUST 1999

NOTE: Exceedances of residential SCTLs are bolded and shaded.
(There were no exceedances in the confirmation samples).

LEGEND

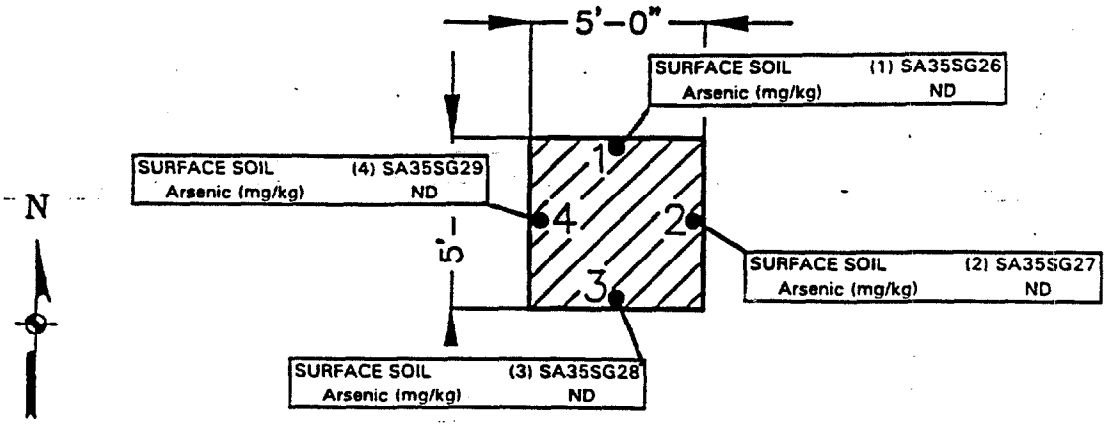
1 • CONFIRMATORY SAMPLE ID SPORT0164–1 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SE30 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SPORT0164–5 DEPTH OF 8'
CONFIRMATORY SAMPLE ID SA35SE34 DEPTH OF 8'

2 • CONFIRMATORY SAMPLE ID SPORT0164–2 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SE31 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SPORT0164–6 DEPTH OF 8'
CONFIRMATORY SAMPLE ID SA35SE35 DEPTH OF 8'

3 • CONFIRMATORY SAMPLE ID SPORT0164–3 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SE32 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SPORT0164–7 DEPTH OF 8'
CONFIRMATORY SAMPLE ID SA35SE36 DEPTH OF 8'

4 • CONFIRMATORY SAMPLE ID SPORT0164–4 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SA35SE33 DEPTH OF 2'
CONFIRMATORY SAMPLE ID SPORT0164–8 DEPTH OF 8'
CONFIRMATORY SAMPLE ID SA35SE37 DEPTH OF 8'

EXCAVATED TO 9 FEET DEEP



LEGEND

1 ● CONFIRMATORY SAMPLE ID SA35SG26

2 ● CONFIRMATORY SAMPLE ID SA35SG27

3 ● CONFIRMATORY SAMPLE ID SA35SG28

4 ● CONFIRMATORY SAMPLE ID SA35SG29

NOTE: Exceedances of residential SCTLs are bolded and shaded.
(There were no exceedances in the confirmation samples).

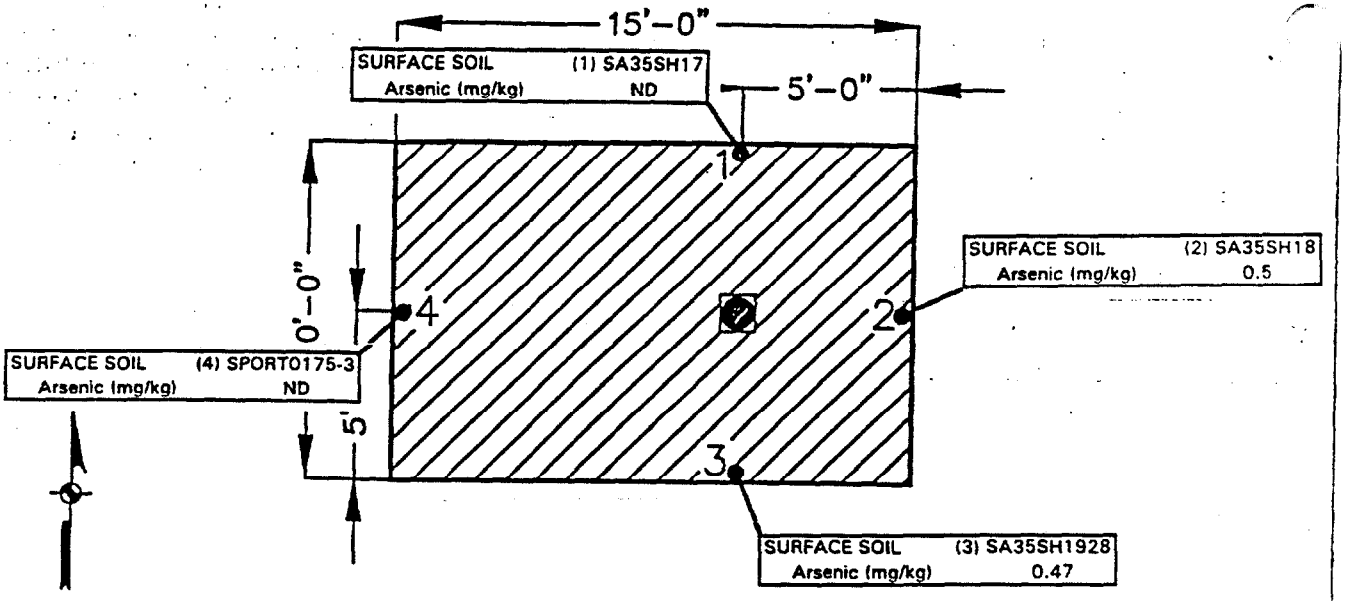
EXCAVATED TO 2 FEET DEEP

ENVIRONMENTAL DETACHMENT CHARLESTON
SOUTH CAROLINA

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

FIGURE 11
NAVAL TRAINING CENTER ORLANDO SA 35 AREA G
EXCAVATION BOUNDARIES AND
CONFIRMATORY SAMPLE LOCATIONS

DATE:	PREPARED BY:	REV
15 AUGUST 1999	A. J. MOYER	–
SCALE: NONE		SHEET: –



NOTE: Exceedances of residential SCTLs are bolded and shaded.
(There were no exceedances in the confirmation samples).

LEGEND

1 ● CONFIRMATORY SAMPLE ID SA35SH17

2 ● CONFIRMATORY SAMPLE ID SA35SH18

3 ● CONFIRMATORY SAMPLE ID SA35SH19

4 ● CONFIRMATORY SAMPLE ID SPORT0175-3

SAMPLE POINT 35S007

EXCAVATED TO 2 FEET DEEP

ENVIRONMENTAL DETACHMENT CHARLESTON
SOUTH CAROLINA

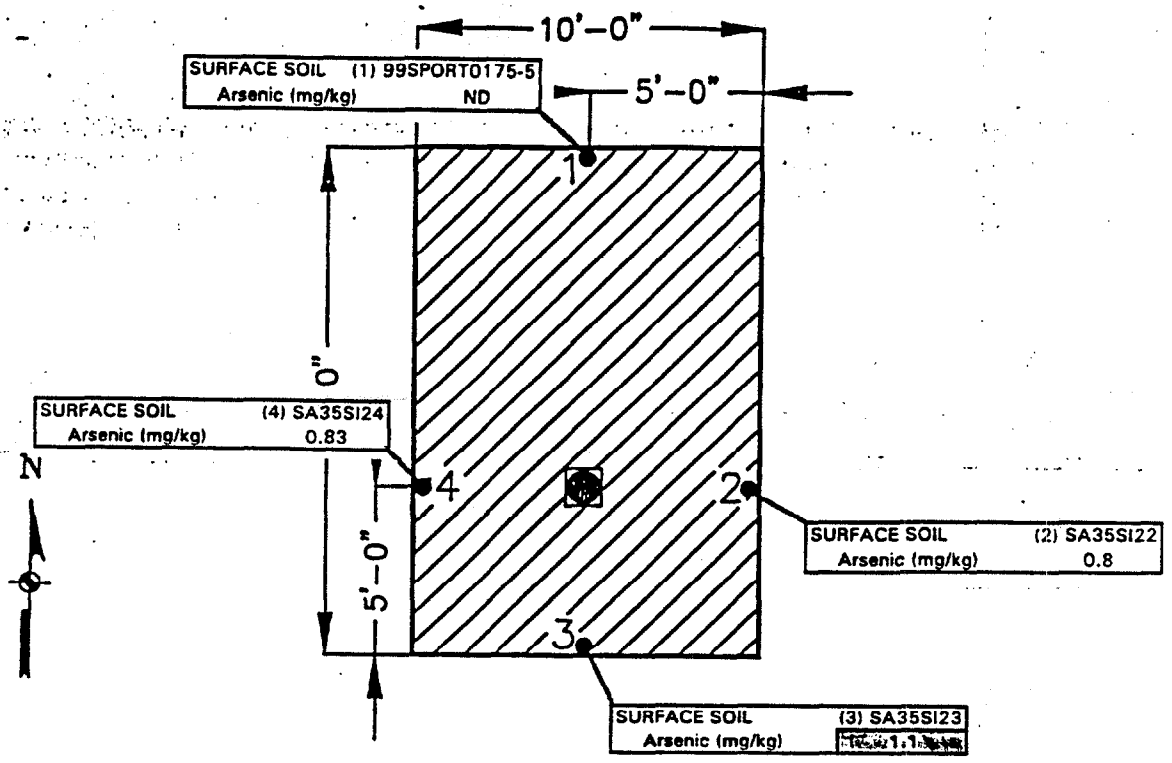
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

FIGURE 12
NAVAL TRAINING CENTER ORLANDO SA 35 AREA H
EXCAVATION BOUNDARIES AND
CONFIRMATORY SAMPLE LOCATIONS

DATE:	PREPARED BY:	REV
15 AUGUST 1999	A. J. MOYER	–

SCALE: NONE

SHEET: –



LEGEND

1 ● CONFIRMATORY SAMPLE ID 99SPORT0175-5

2 ● CONFIRMATORY SAMPLE ID SA35SI22

3 ● CONFIRMATORY SAMPLE ID SA35SI23

4 ● CONFIRMATORY SAMPLE ID SA35SI24

SAMPLE POINT 35S008

EXCAVATED TO 2 FEET DEEP

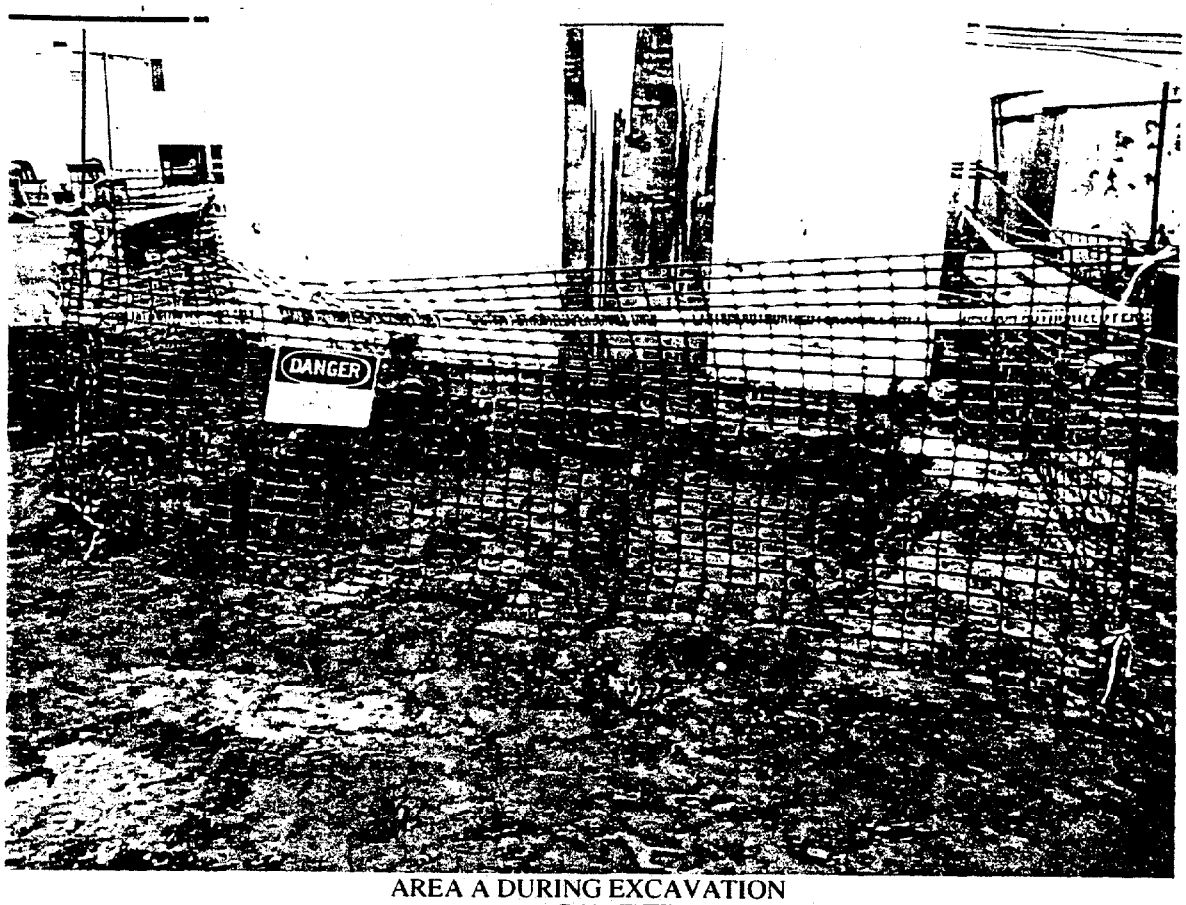
NOTE: Exceedances of residential SCTLs are bolded and shaded.

ENVIRONMENTAL DETACHMENT CHARLESTON
SOUTH CAROLINA

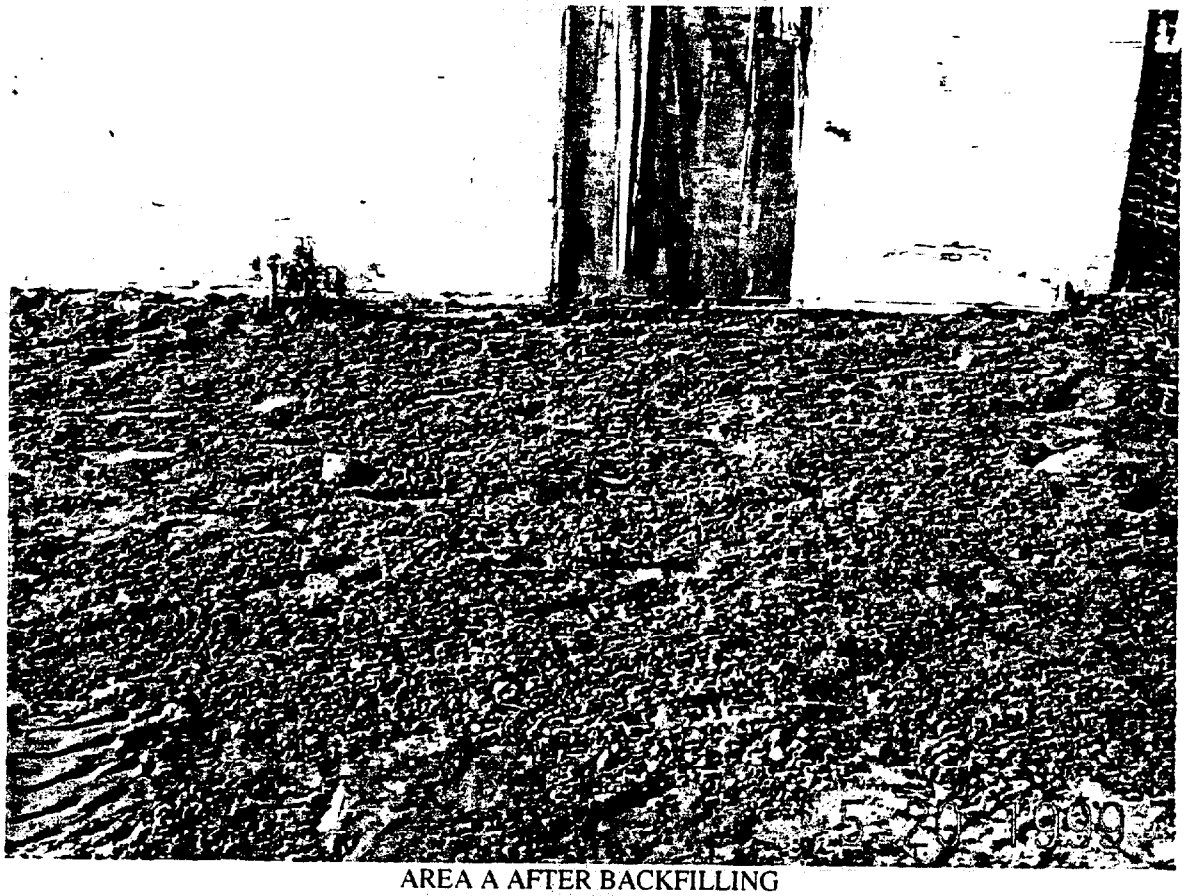
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

FIGURE 13
NAVAL TRAINING CENTER ORLANDO SA 35 AREA I
EXCAVATION BOUNDARIES AND
CONFIRMATORY SAMPLE LOCATIONS

DATE:	PREPARED BY:	REV
15 AUGUST 1999	A. J. MOYER	–
SCALE: NONE		SHEET: –

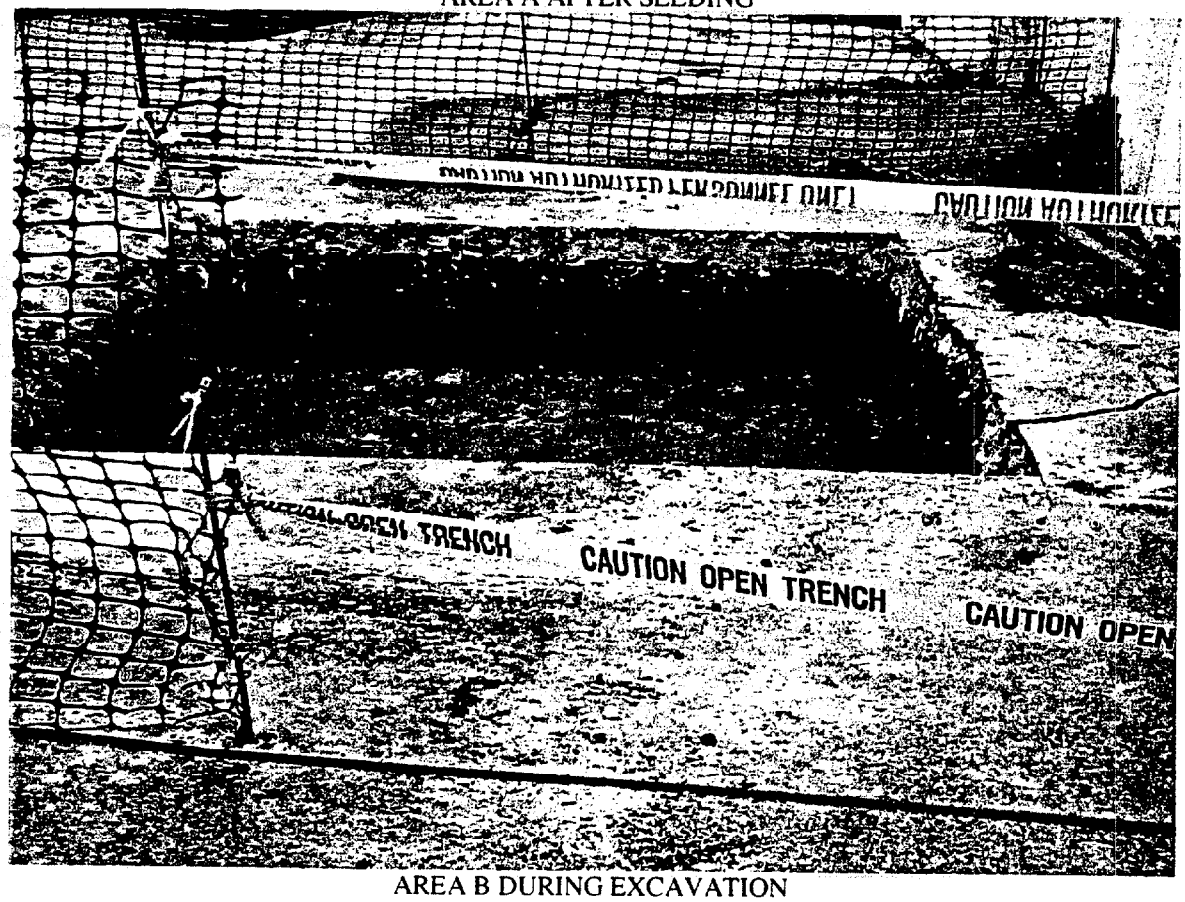


AREA A DURING EXCAVATION

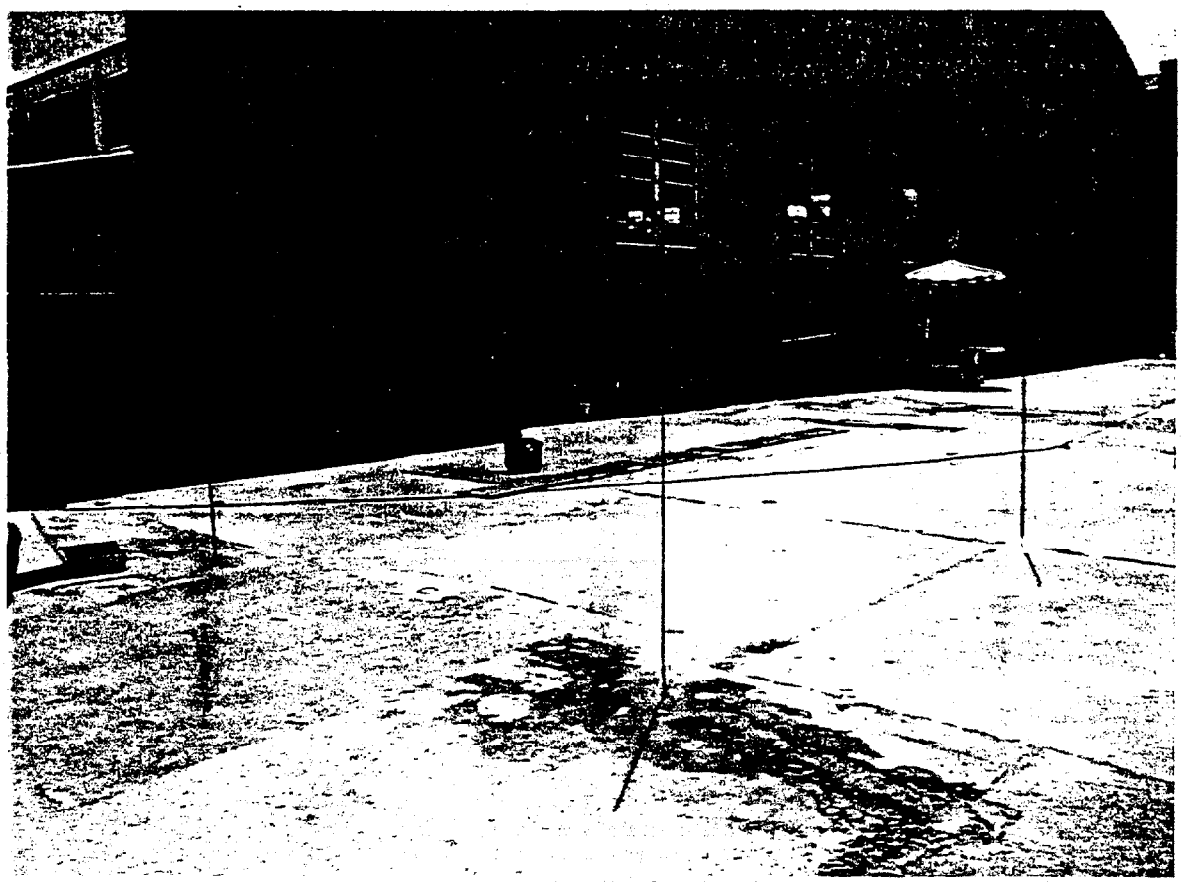


AREA A AFTER BACKFILLING

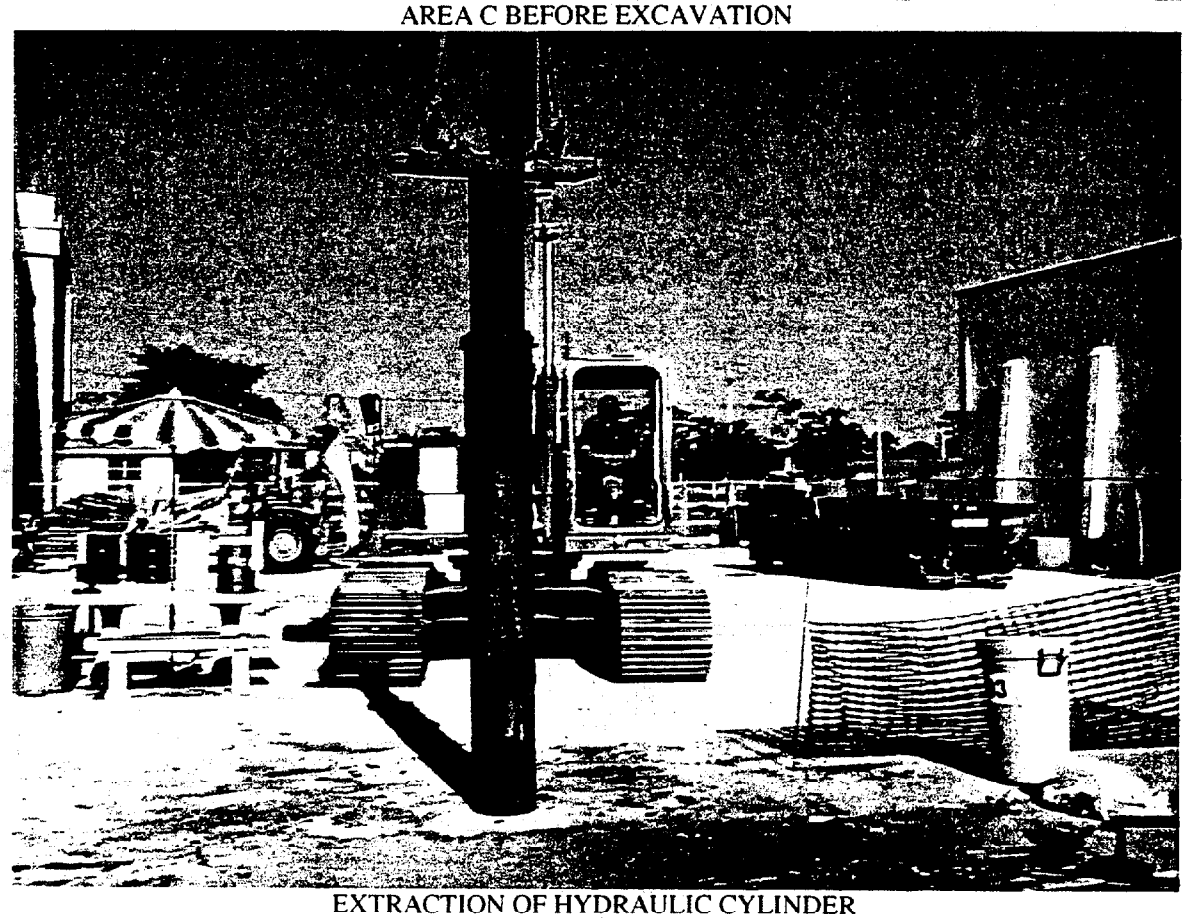
AREA A AFTER SEEDING



AREA B DURING EXCAVATION

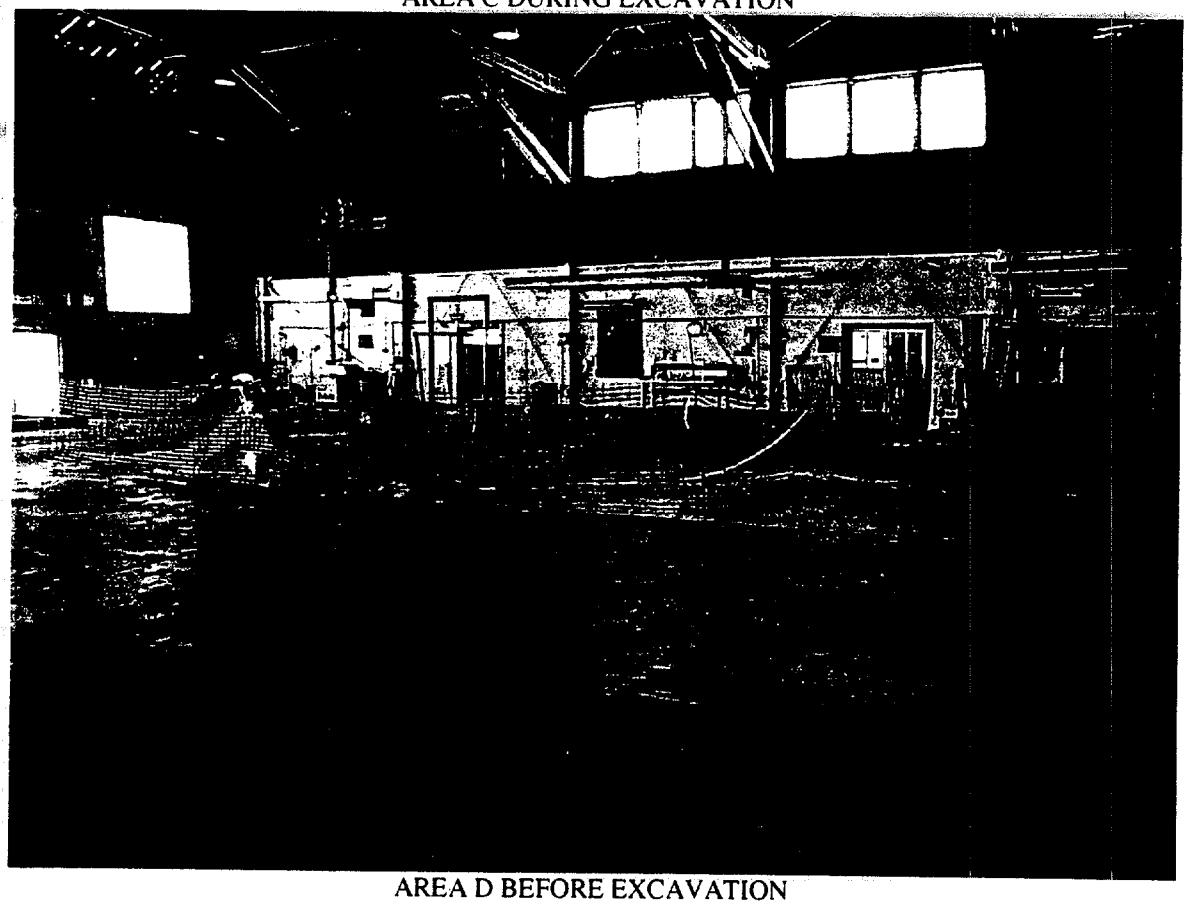


AREA C BEFORE EXCAVATION



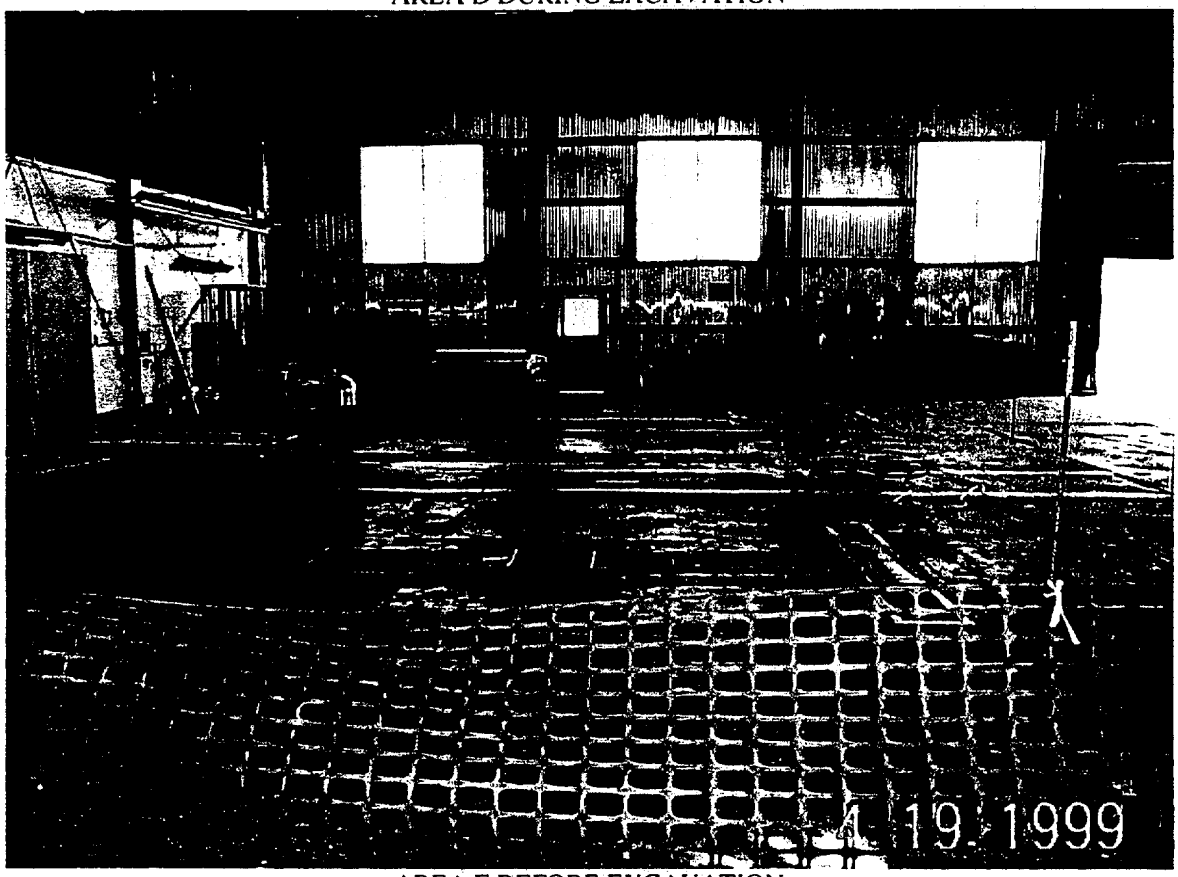
EXTRACTION OF HYDRAULIC CYLINDER

AREA C DURING EXCAVATION

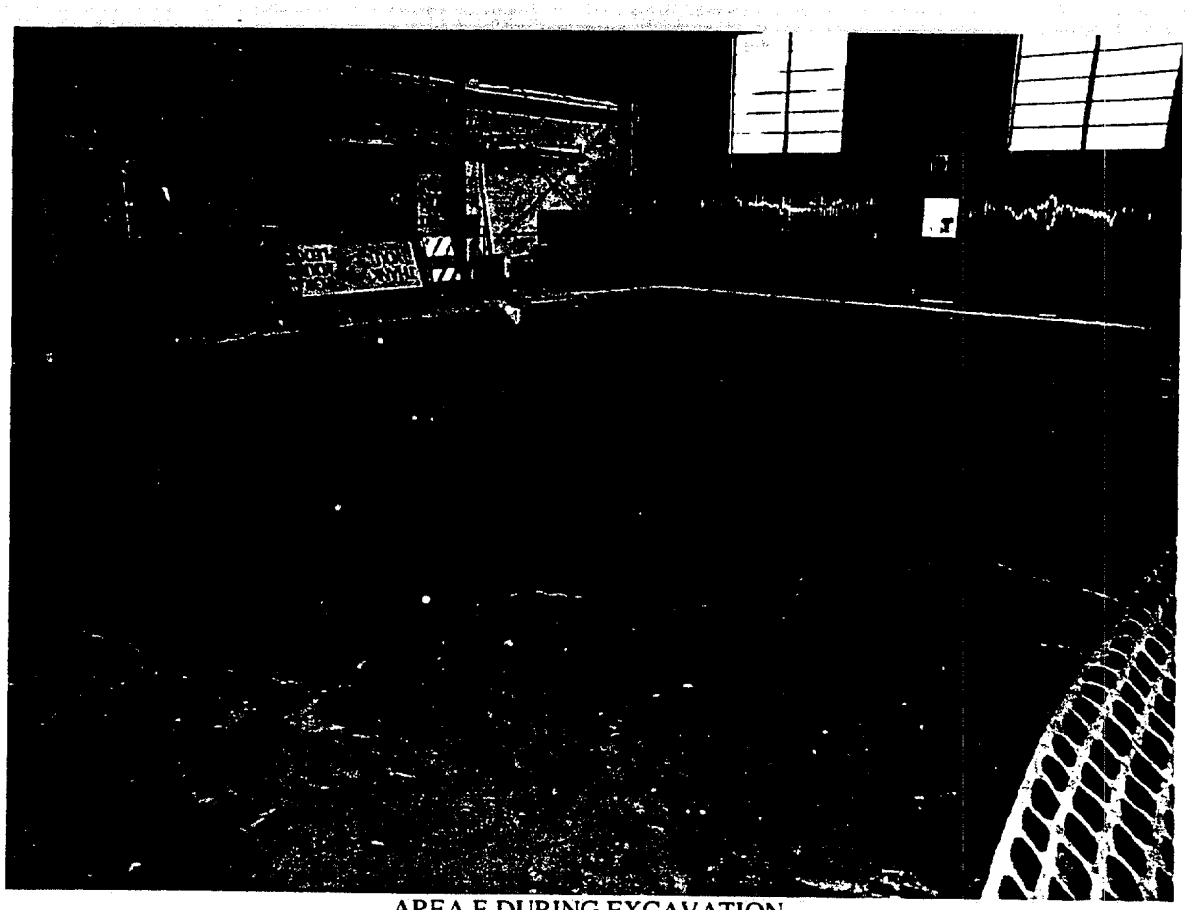


AREA D BEFORE EXCAVATION

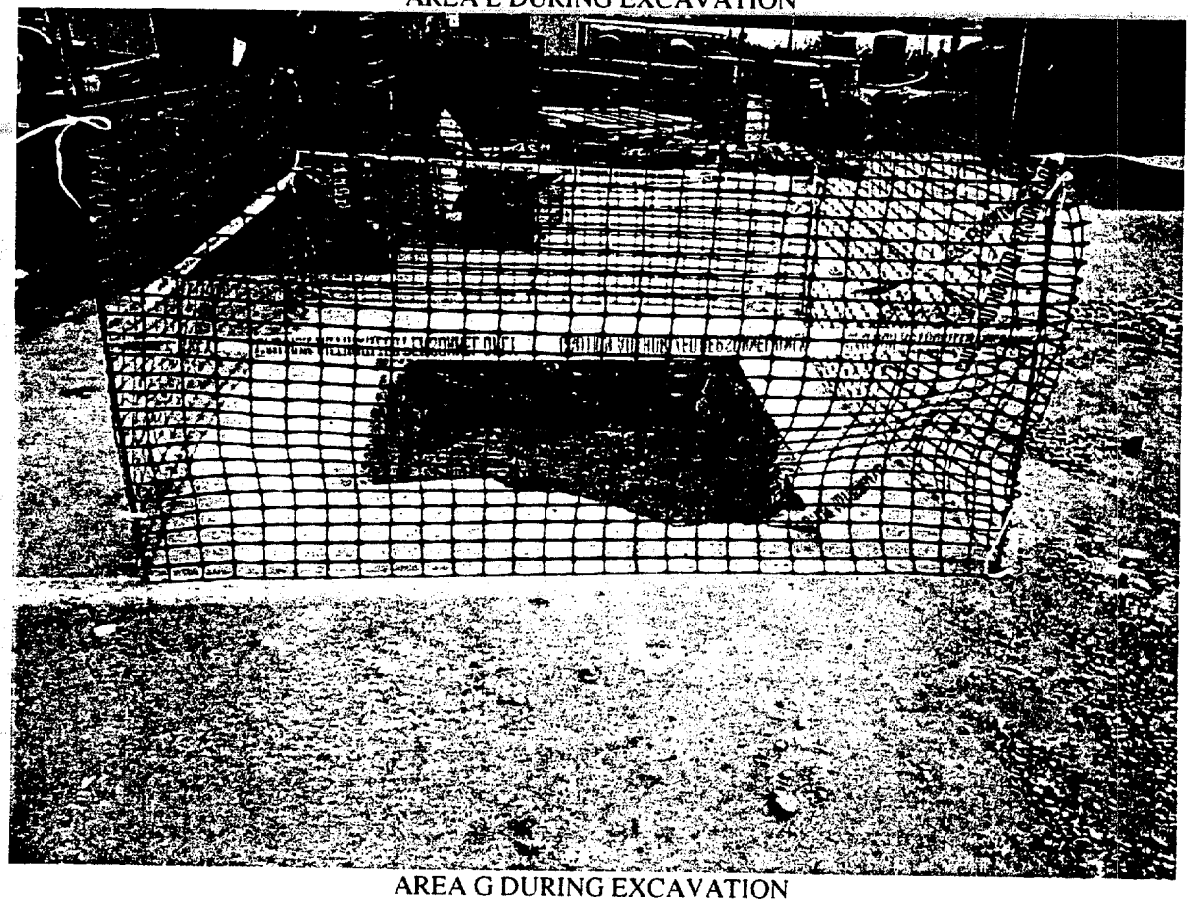
AREA D DURING EXCAVATION



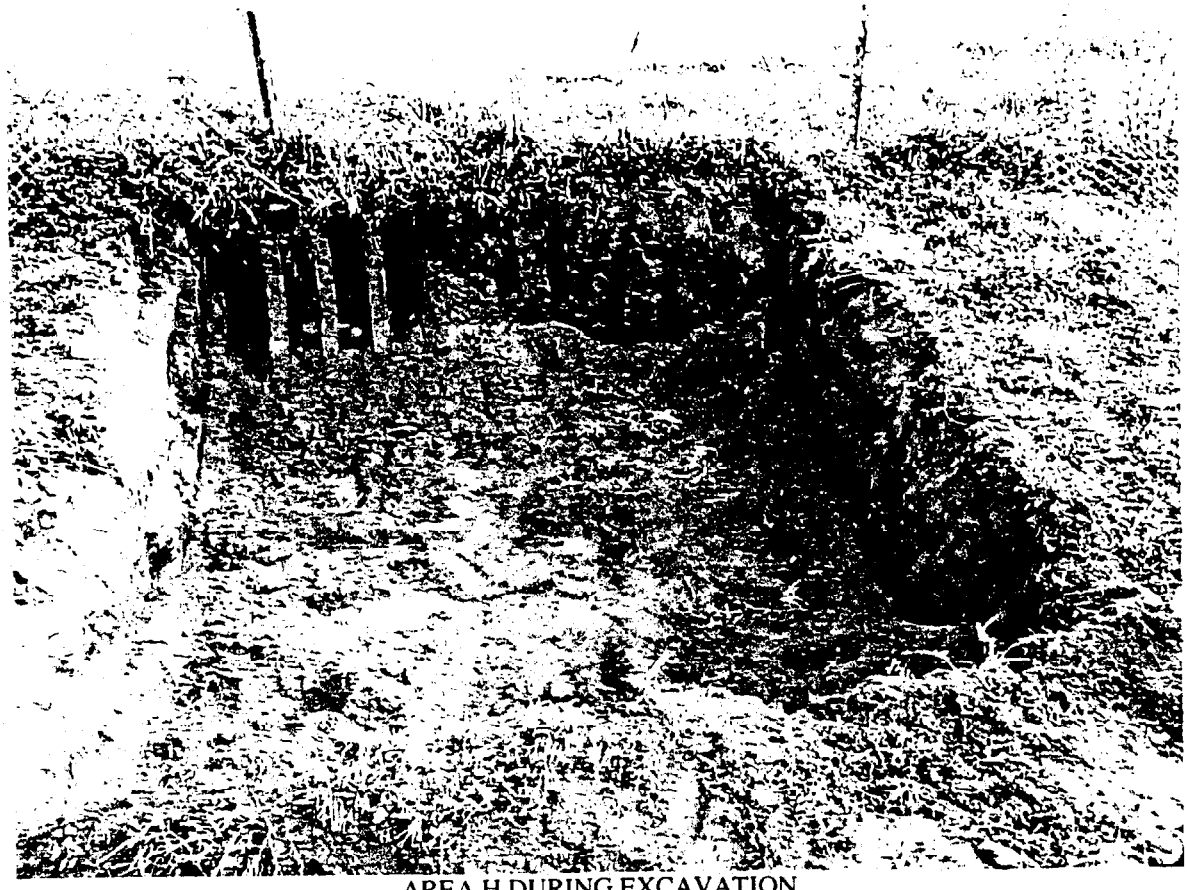
AREA E BEFORE EXCAVATION



AREA E DURING EXCAVATION



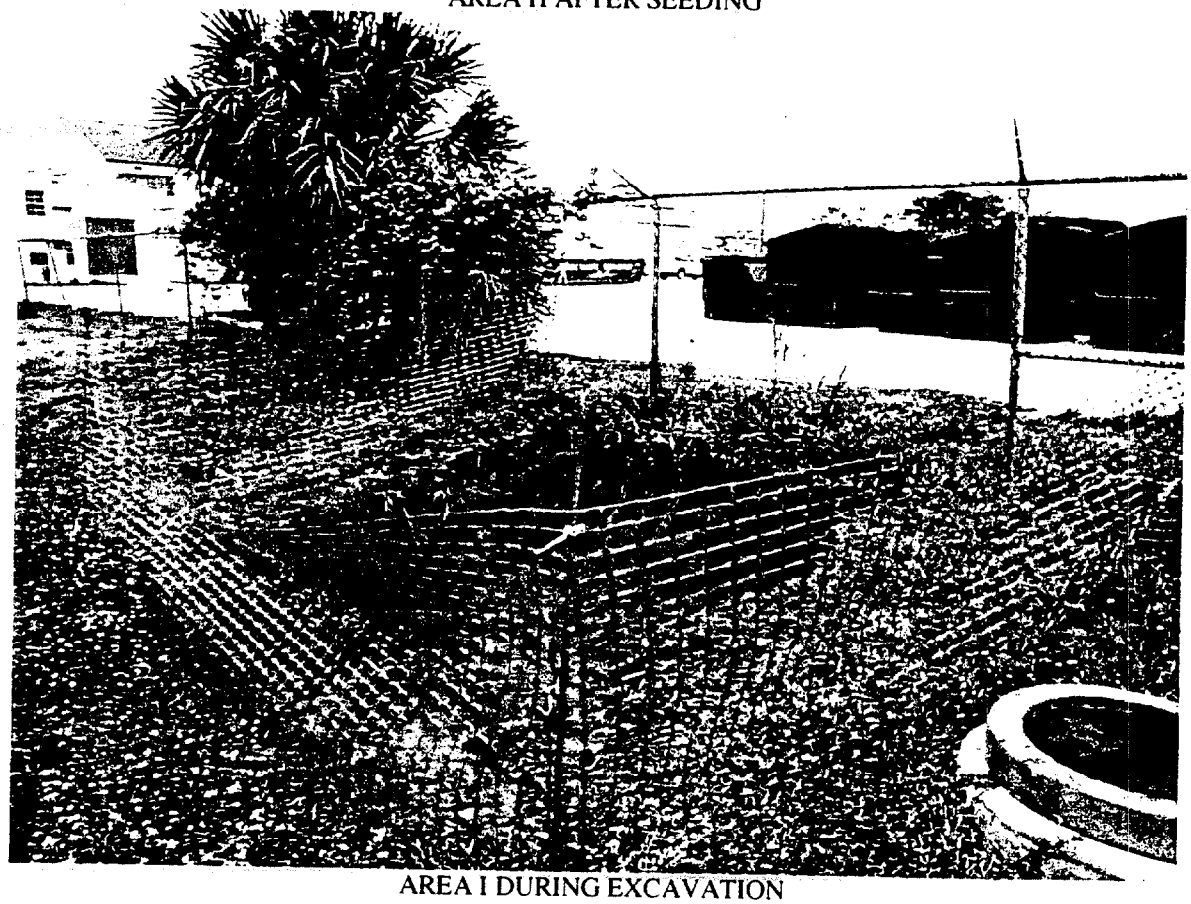
AREA G DURING EXCAVATION



AREA H DURING EXCAVATION

AREA H AFTER BACKFILLING

AREA H AFTER SEEDING



AREA I DURING EXCAVATION

AREA I AFTER BACKFILLING

AREA I AFTER SEEDING

CONFIRMATION SAMPLES

Environmental Conservation Laboratories
10207 General Drive
Orlando, Florida 32824-8529
17 / 826-5314
ax 407 / 850-6945
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E83182

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
Address:	1899 N. Hobson Ave	Date Reported:	6-May-99
	Charleston, SC 29405-2106	Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-1	SA35SA9	4/30/99 14:15	FLPRO	Hydrocarbons (C8-C40)	11			mg/Kg	3.5	1.8
OR6459-1	SA35SA9	4/30/99 14:15	FLPRO	o-Terphenyl	123			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-1	SA35SA9	4/30/99 14:15	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-1	SA35SA9	4/30/99 14:15	SM2540G	Percent Solids	94			%		

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
		Date Reported:	6-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-2	SA35SA10	4/30/99 14:20	FLPRO	Hydrocarbons (C8-C40)	8.9			mg/Kg	3.5	1.8
OR6459-2	SA35SA10	4/30/99 14:20	FLPRO	o-Terphenyl	82			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-2	SA35SA10	4/30/99 14:20	7060	Arsenic	7.3			mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-2	SA35SA10	4/30/99 14:20	SM2540G	Percent Solids	93			%		

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
Address:	1899 N. Hobson Ave	Date Reported:	6-May-99
	Charleston, SC 29405-2106	Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-3	SA35SA11	4/30/99 14:26	FLPRO	Hydrocarbons (C8-C40)	10			mg/Kg	3.5	1.8
OR6459-3	SA35SA11	4/30/99 14:26	FLPRO	o-Terphenyl	122			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-3	SA35SA11	4/30/99 14:26	7060	Arsenic	6.4			mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-3	SA35SA11	4/30/99 14:26	SM2540G	Percent Solids	95			%		

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
		Date Reported:	6-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-4	SA35SA12	4/30/99 14:35	FLPRO	Hydrocarbons (C8-C40)	12			mg/Kg	3.4	1.8
OR6459-4	SA35SA12	4/30/99 14:35	FLPRO	o-Terphenyl	127			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-4	SA35SA12	4/30/99 14:35	7060	Arsenic	0.7			mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-4	SA35SA12	4/30/99 14:35	SM2540G	Percent Solids	96			%		

RF #_____

ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive
Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE	PROJECT NO	P.O. NUMBER
NTC Orlando	SA 35	

PROJECT LOC. (State): FL.
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX:
CLIENT NAME: ENV DET CHASN
CLIENT PROJECT MANAGER: A. moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave, N. Chas, SC 29405

PAGE ___ OF ___

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: 5/5/99 PM

SAMPLE STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	FLTRPH	Arsenic (TCP)	REMARKS
						NUMBER OF CONTAINERS SUBMITTED											
1	4/30/99	1415	X		SA35SA9 ✓					X					1	X	
2	4/30/99	1420	X		SA35SA10 ✓					X					1	X	
3	4/30/99	1426	X		SA35 SA 11 ✓					X					1	X	
4	4/30/99	1435	X		SA35 SA 12 ✓					X					1	X	
5	4/30/99	1450	X		SA35SB 13 ✓					X					1	X	
6	4/30/99	1458	X		SA35SB 14 ✓					X					1	X	
7	4/30/99	1505	X		SA35SB 15 ✓					X					1	X	
8	4/30/99	1510	X		SA35SB 16 ✓					X					1	X	
9	5/1/99	1001	X		SA35SH 17 ✓					X						1	
10	5/1/99	1010	X		SA35 SH 18 ✓					X						1	
11	5/1/99	1018	X		SA35 SH 19 ✓					X						1	
12	5/1/99	1027	X		SA35 SH 20 ✓					X						1	
13	5/1/99	1045	X		SA35 SI 21 ✓					X						1	
14	5/1/99	1053	X		SA35 SI 22 ✓					X						1	

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			RW Cope	5/3/99	1415	Samuel W. Drigong	5/3/99	1415
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
K. Armstrong ☐ Jacksonville ☐ Orlando	5-3-99	3:30	☐ YES ☐ NO	1K6459	

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/[illegible]
NC	233	
NJ	79002	79002
SC	10120	10587
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197 Report Date: May 19, 1999

Sample ID	: 99SPORT0183-2
Lab ID	: 9905532-02
Matrix	: Soil
Date Collected	: 05/14/99
Date Received	: 05/17/99
Priority	: Rush
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Arsenic		777	441	485	ug/kg	2.0	MBL	05/18/99	0945	149233	
The following prep procedures were performed:											
TRACE							FGD	05/17/99	1900	149233	2

M = Method	Method-Description
M 1	EPA 6010B
M 2	EPA 3050

Notes:
The qualifiers in this report are defined as follows:
ND indicates that the analyte was not detected at a concentration greater than the detection limit.
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).
U indicates that the analyte was not detected at a concentration greater than the detection limit.
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Elise Hanson at 843-556-8171.

E Hanson

ewed By

P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29407
(843) 556-8171 • Fax (843) 766-1178

Printed on recycled paper.

9905532-02

Page 1 of 1

CHAIN OF CUSTODY RECORD

9905532%

General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

Client Name/Facility Name: McCoy Orlando

Collected by/Company: Env Det Chas

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

40300

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	PAH 8270	Arsenic TCLP	Remarks	
01	99Sport 0183-1	5/14/99	1115		X	X		1																		SA 17 S031 & 32	
																								X		SA 17 S033 @ 40'	1
02	99Sport 0183-2	5/14/99	1515		X	X		1																		99Sport 0175-1 & 2	
																									X	SA 35 SA 64 @ 15'	2
03	99Sport 0183-3	5/14/99	1610		X	X		1																		99Sport 0173-16	
																									X	SA 8 S054 & 6 @ 5'	2

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
KW Cope	5/14/99	1745					
Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:	
			D. Power	7/99	08:30		

White = s collector Yellow = file Pink = with report

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
		Date Reported:	6-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-5	SA35SB13	4/30/99 14:50	FLPRO	Hydrocarbons (C8-C40)	570		50	mg/Kg	170	88
OR6459-5	SA35SB13	4/30/99 14:50	FLPRO	o-Terphenyl	118		50	%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-5	SA35SB13	4/30/99 14:50	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-5	SA35SB13	4/30/99 14:50	SM2540G	Percent Solids	97			%		

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
Address:	1899 N. Hobson Ave	Date Reported:	6-May-99
	Charleston, SC 29405-2106	Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-6	SA35SB14	4/30/99 14:58	FLPRO	Hydrocarbons (C8-C40)	25			mg/Kg	3.4	1.8
OR6459-6	SA35SB14	4/30/99 14:58	FLPRO	o-Terphenyl	120			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-6	SA35SB14	4/30/99 14:58	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-6	SA35SB14	4/30/99 14:58	SM2540G	Percent Solids	97			%		

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
		Date Reported:	6-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-7	SA35SB15	4/30/99 15:05	FLPRO	Hydrocarbons (C8-C40)	350		50	mg/Kg	170	88
OR6459-7	SA35SB15	4/30/99 15:05	FLPRO	o-Terphenyl	118		50	%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-7	SA35SB15	4/30/99 15:05	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-7	SA35SB15	4/30/99 15:05	SM2540G	Percent Solids	97			%		

U = Compound was analyzed for but not deteched to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	6-May-99
		Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-8	SA35SB16	4/30/99 15:10	FLPRO	Hydrocarbons (C8-C40)	250	I	50	mg/Kg	170	89
OR6459-8	SA35SB16	4/30/99 15:10	FLPRO	o-Terphenyl	130		50	%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-8	SA35SB16	4/30/99 15:10	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-8	SA35SB16	4/30/99 15:10	SM2540G	Percent Solids	95			%		

U = Compound was analyzed for but not detected to the level shown.
I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive
Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC Orlando
PROJECT NO: SA35
P.O. NUMBER:
PROJECT LOC. (State): FL.
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX:
CLIENT NAME: ENV DET CHASN
CLIENT PROJECT MANAGER: A. Moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave, N. Chas, SC 29405

PAGE ___ OF ___

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: 5/5/99 pm

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	FL TRPH	Arsenic (TCP)							REMARKS
															NUMBER OF CONTAINERS SUBMITTED								
1	4/30/99	1415	X		SA35SA9 ✓					X					1	X							
2	4/30/99	1420	X		SA35SA10 ✓					X					1	X							
3	4/30/99	1426	X		SA35 SA11 ✓					X					1	X							
4	4/30/99	1435	X		SA35 SA12 ✓					X					1	X							
5	4/30/99	1450	X		SA35SB 13 ✓					X					1	X							
6	4/30/99	1458	X		SA35SB 14 ✓					X					1	X							
7	4/30/99	1505	X		SA35SB 15 ✓					X					1	X							
8	4/30/99	1510	X		SA35SB 16 ✓					X					1	X							
9	5/1/99	1001	X		SA35SH 17 ✓					X						1							
10	5/1/99	1010	X		SA35 SH 18 ✓					X						1							
11	5/1/99	1018	X		SA35 SH 19 ✓					X						1							
12	5/1/99	1027	X		SA35 SH 20 ✓					X						1							
13	5/1/99	1045	X		SA35 SI 21 ✓					X						1							
14	5/1/99	1053	X		SA35 SI 22 ✓					X						1							

SAMPLE KIT PREPARED BY: ☐ JACKSONVILLE ☐ ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			RW Cope	5/3/99	1415	Samuel J. Drigong	5/3/99	1415
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) ☐ Jacksonville ☐ Orlando	DATE	TIME	CUSTODY INTACT ☐ YES ☐ NO	ENCO LOG NO.	REMARKS
R. Horn	5-3-99	3:30		1126 7	

Client:	Environmental Detachment Charleston	Report #:	OR6568
		Date Submitted:	12-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	19-May-99
		Project #:	STUDT AREA-35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6568-4	SA35SB63	5/11/99 10:35	FLPRO	Hydrocarbons (C8-C40)	14	U	2	mg/Kg	14	6.9
OR6568-4	SA35SB63	5/11/99 10:35	FLPRO	o-Terphenyl	117		2	%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6568-4	SA35SB63	5/11/99 10:35	SM2540G	Percent Solids	96			%		

NOTE: Analyte values are reproted on a dry weight basis.

ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Park Court, Suite 211
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10207 General Drive
Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

Study Area-35

PROJECT REFERENCE	PROJECT NO.	P.O. NUMBER
NTC ORLANDO	SA 35	

PROJECT LOC. (State)	SAMPLER(s) NAME	PHONE	FAX
FL	Rusty Cope	496-2173	

CLIENT NAME	CLIENT PROJECT MANAGER
Env Det Chas	A.J. Mayer

CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave, N. Charleston, S.C. 29405

PAGE | OF

☐ STANDARD REPORT DELIVERY

☐ EXPEDITED REPORT DELIVERY (surcharge)

Date Due: 5-14-99

STATION	SAMPLE DATE	SAMPLE TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (OIL, SOLVENT, ETC.)	AIR	SLUDGE	OTHER	FLTRPH	NUMBER OF CONTAINERS SUBMITTED	REMARKS
1	5/11/99	1022	X		SA35SB 60					X					1		Extend Areas
2	5/11/99	1026	X		SA35SB 61					X					1		of SA-35-B
3	5/11/99	1030	X		SA35SB 62					X					1		5' + 10' North
4	5/11/99	1035	X		SA35SB 63					X					1		and South
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY: (SIGNATURE) T W Cope	5/12/99	9 30	RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE) Matt H	5 12 99	9 30a	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
Kli ☐ Jackson. ley ☒ Orlando	5/12/99	9.30AM	☐ YES ☒ NO	ORL 3	

Environmental Conservation Laboratories
10207 General Drive
'lando, Florida 32824-8529
7 / 826-5314
,-ax 407 / 850-6945
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E83182

Client:	Environmental Detachment Charleston	Report #:	OR6692
		Date Submitted:	20-May-99
		Date Reported:	24-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QAUL	DIL	UNITS	RDL	MDL
OR6692-1	SA35SB67	5/20/99 7:54	FLPRO	Hydrocarbons (C8-C40)	150	-		mg/Kg	6.8	3.4
OR6692-1	SA35SB67	5/20/99 7:54	FLPRO	o-Terphenyl	149			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QAUL	DIL	UNITS	RDL	MDL
OR6692-1	SA35SB67	5/20/99 7:54	SM2540G	Percent Solids	98			%		

NOTE: Analyte values are reported on a dry weight basis.

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Orlando, Florida 32824
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ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC Orlando
PROJECT NO.: SA35
P.O. NUMBER:
PROJECT LOC. (State): FL
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX:
CLIENT NAME: Env Det Chasn
CLIENT PROJECT MANAGER: AJ Moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave, N. Chas. SC 29405

PAGE 1 OF 1

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: 5/22/99

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	FLTRPH							REMARKS
1	5/20/99	0754	X		SA35SB67					X					1							Extended to 15'
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						

NUMBER OF CONTAINERS SUBMITTED

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
			R W Cope	5/20/99	1035	[illegible]	5/20/99	10:35
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO	REMARKS
Kim ☐ Jackson ☒ Orlando	5/20/99	10:35AM	☐ YES ☒ NO	ORLA 2	

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-9	SA35SC46(2' SIDE WA)	5/4/99 11:04	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-9	SA35SC46(2' SIDE WA)	5/4/99 11:04	FLPRO	o-Terphenyl	100			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-9	SA35SC46(2' SIDE WA)	5/4/99 11:04	SM2540G	Percent Solids	96			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-10	SA35SC47(2' SIDE WA)	5/4/99 11:11	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-10	SA35SC47(2' SIDE WA)	5/4/99 11:11	FLPRO	o-Terphenyl	106			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-10	SA35SC47(2' SIDE WA)	5/4/99 11:11	SM2540G	Percent Solids	96			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-11	SA35SC48(2' SIDE WA)	5/4/99 11:20	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-11	SA35SC48(2' SIDE WA)	5/4/99 11:20	FLPRO	o-Terphenyl	108			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-11	SA35SC48(2' SIDE WA)	5/4/99 11:20	SM2540G	Percent Solids	96			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-12	SA35SC49(2' SIDE WA)	5/4/99 11:27	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-12	SA35SC49(2' SIDE WA)	5/4/99 11:27	FLPRO	o-Terphenyl	119			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-12	SA35SC49(2' SIDE WA)	5/4/99 11:27	SM2540G	Percent Solids	96			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-13	SA35SC50(8' SIDE WA)	5/4/99 11:35	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.5	1.8
OR6474-13	SA35SC50(8' SIDE WA)	5/4/99 11:35	FLPRO	o-Terphenyl	125			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-13	SA35SC50(8' SIDE WA)	5/4/99 11:35	SM2540G	Percent Solids	93			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-14	SA35SC51(8' SIDE WA)	5/4/99 11:44	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-14	SA35SC51(8' SIDE WA)	5/4/99 11:44	FLPRO	o-Terphenyl	113			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-14	SA35SC51(8' SIDE WA)	5/4/99 11:44	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
Address:	1899 N. Hobson Ave	Date Reported:	13-May-99
	Charleston, SC 29405-2106	Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-15	SA35SC52(8' SIDE WA)	5/4/99 11:51	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.5	1.8
OR6474-15	SA35SC52(8' SIDE WA)	5/4/99 11:51	FLPRO	o-Terphenyl	103			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-15	SA35SC52(8' SIDE WA)	5/4/99 11:51	SM2540G	Percent Solids	93			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-16	SA35SC53(8' SIDE WA)	5/4/99 12:00	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.6	1.9
OR6474-16	SA35SC53(8' SIDE WA)	5/4/99 12:00	FLPRO	o-Terphenyl	108			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-16	SA35SC53(8' SIDE WA)	5/4/99 12:00	SM2540G	Percent Solids	91			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

ENVIRONMENTAL CONSERVATION LABORATORIES

Q RF # _____

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Orlando, Florida 32824
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ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC Orlando
PROJECT NO.: SA35
P.O. NUMBER:
PROJECT LOC. (State): FL
SAMPLER(s) NAME: Rusty Cope
PHONE: 496 2173
FAX:
CLIENT NAME: Eno Det Chas
CLIENT PROJECT MANAGER: AJ moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave N. Chas, SC 29405

PAGE 1 OF 2

☐ STANDARD REPORT DELIVERY
☒ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: 5/7/99 1Am

STATION	SAMPLE DATE	SAMPLE TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	ETRPH	NUMBER OF CONTAINERS SUBMITTED	REMARKS
1	5/4/99	1002	X		SA35SE 30					X					1		2' side walls
2		1010	X		SA35SE 31					X					1		↓
3		1017	X		SA35SE 32					X					1		
4		1024	X		SA35SE 33					X					1		
5		1030	X		SA35SE 34					X					1		8' side walls
6		1039	X		SA35SE 35					X					1		↓
7		1046	X		SA35SE 36					X					1		
8		1055	X		SA35SE 37					X					1		
9		1104	X		SA35SC 46					X					1		2' Side Walls
10		1111			SA35SC 47					X					1		↓
11		1120			SA35SC 48					X					1		
12		1127			SA35SC 49					X					1		
13		1135			SA35SC 50					X					1		8' Side Walls
14		1144			SA35SC 51					X					1		↓

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
			RW Cope	5/4/99	13:45	Jamie J. Dragna	5/4/99	13:45
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
K.A. Trozzo ☐ Jacksonville ☐ Orlando	5-4-99	2:30	☐ YES ☒ NO	0126	

QS CF #_____

ENVIRONME AL CONSERVATION LABORATORIES

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Orlando, Florida 32824
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ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC Orlando
PROJECT NO.: SA-35
P.O. NUMBER:
PAGE 2 OF 2

PROJECT LOC. (State): FL
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX:

CLIENT NAME: Env Det Chas.
CLIENT PROJECT MANAGER: AJ Moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Dobson Ave; N. Chas, S. C. 29405

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: 5/7/99

MATRIX TYPE: SURFACE WATER, GROUND WATER, WASTEWATER, DRINKING WATER, SOIL/SOLID/SEDIMENT, NONAQUEOUS LIQUID (oil, solvent, etc.), AIR, SLUDGE, OTHER

REQUIRED ANALYSIS: FLTRPH

NUMBER OF CONTAINERS SUBMITTED

SAMPLE STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID	AIR	SLUDGE	OTHER	FLTRPH	REMARKS
1	5/4/99	1151	X		SA35SC52					X					1	8' Side walls
2	5/4/99	1200	X		SA35SC53					X					1	
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			R W Cope	5/4/99		Samuel L. Gregory	5/4/99	13:45
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
R. Alston ☐ Jacksonville ☐ Orlando	5-4-99	7:30	☐ YES ☒ NO	ORL-	

Environmental Conservation Laboratories
10207 General Drive
Orlando, Florida 32824-8529
407 / 826-5314
Fax 407 / 850-6945
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E83182

Client:	Environmental Detachment Charleston	Report #:	OR6430
		Date Submitted:	30-Apr-99
		Date Reported:	10-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Project #:	SA-35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-1	SA35SD1	4/30/99 10:05	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6430-1	SA35SD1	4/30/99 10:05	FLPRO	o-Terphenyl	103			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-1	SA35SD1	4/30/99 10:05	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6430
		Date Submitted:	30-Apr-99
		Date Reported:	10-May-99
Address:	1899 N. Hobson Ave	Project #:	SA-35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-2	SA35SD2	4/30/99 10:08	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6430-2	SA35SD2	4/30/99 10:08	FLPRO	o-Terphenyl	99			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-2	SA35SD2	4/30/99 10:08	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6430
		Date Submitted:	30-Apr-99
Address:	1899 N. Hobson Ave	Date Reported:	10-May-99
	Charleston, SC 29405-2106	Project #:	SA-35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-3	SA35SD3	4/30/99 10:15	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6430-3	SA35SD3	4/30/99 10:15	FLPRO	o-Terphenyl	93			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-3	SA35SD3	4/30/99 10:15	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6430
		Date Submitted:	30-Apr-99
		Date Reported:	10-May-99
Address:	1899 N. Hobson Ave	Project #:	SA-35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-4	SA35SD4	4/30/99 10:23	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6430-4	SA35SD4	4/30/99 10:23	FLPRO	o-Terphenyl	99			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-4	SA35SD4	4/30/99 10:23	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6430
		Date Submitted:	30-Apr-99
Address:	1899 N. Hobson Ave	Date Reported:	10-May-99
	Charleston, SC 29405-2106	Project #:	SA-35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-5	SA35SD5	4/30/99 10:30	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6430-5	SA35SD5	4/30/99 10:30	FLPRO	o-Terphenyl	97			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-5	SA35SD5	4/30/99 10:30	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6430
		Date Submitted:	30-Apr-99
		Date Reported:	10-May-99
Address:	1899 N. Hobson Ave	Project #:	SA-35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-6	SA35SD6	4/30/99 10:45	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.7
OR6430-6	SA35SD6	4/30/99 10:45	FLPRO	o-Terphenyl	94			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-6	SA35SD6	4/30/99 10:45	SM2540G	Percent Solids	98			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6430
		Date Submitted:	30-Apr-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	10-May-99
		Project #:	SA-35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-7	SA35SD7	4/30/99 10:54	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6430-7	SA35SD7	4/30/99 10:54	FLPRO	o-Terphenyl	94			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-7	SA35SD7	4/30/99 10:54	SM2540G	Percent Solids	96			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6430
		Date Submitted:	30-Apr-99
		Date Reported:	10-May-99
Address:	1899 N. Hobson Ave	Project #:	SA-35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-8	SA35SD8	4/30/99 11:06	FLPRO	Hydrocarbons (C8-C40)	18			mg/Kg	3.4	1.8
OR6430-8	SA35SD8	4/30/99 11:06	FLPRO	o-Terphenyl	101			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6430-8	SA35SD8	4/30/99 11:06	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

QSARF #_____

ENVIRONMENTAL CONSERVATION LABORATORIES

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Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC Orlando
PROJECT NO.: SA-35
P.O. NUMBER:
PAGE: ___ OF ___

PROJECT LOC (State): FL.
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX: 407-869-5468

CLIENT NAME: ENV DET CHAS
CLIENT PROJECT MANAGER: A. Moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave; N. Charleston, SC 29405

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: 5-3-99 PM

MATRIX TYPE: SURFACE WATER, GROUND WATER, WASTEWATER, DRINKING WATER, SOIL/SOLID/SEDIMENT, NONAQUEOUS LIQUID (oil, solvent, etc.), AIR, SLUDGE, OTHER

REQUIRED ANALYSIS: FLTRPH

STATION	SAMPLE DATE	SAMPLE TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SOIL/SOLID/SEDIMENT	OTHER (FLTRPH)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
1	4/30/99	1005	X		SA35SD1	X	1		SA-35 Area D
2	4/30/99	1008	X		SA35SD2	X	1		@ 2' and 8'
3	4/30/99	1015	X		SA35SD3	X	1		each side wall
4	4/30/99	1023	X		SA35SD4	X	1		
5	4/30/99	1030	X		SA35SD5	X	1		
6	4/30/99	1045	X		SA35SD6	X	1		
7	4/30/99	1054	X		SA35SD7	X	1		
8	4/30/99	1106	X		SA35SD8	X	1		
9									
10									
11									
12									
13									
14									

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY (SIGNATURE): R W Cope	4/30/99	1300	RECEIVED BY (SIGNATURE): James W. Gregory	4/30/99	1300	RELINQUISHED BY (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
Kim ☐ Jackson ☒ Orlando	4/30/99	14:35 PM	☐ YES ☒ NO	OR6	

Environmental Conservation Laboratories
10207 General Drive
Orlando, Florida 32824-8529
07 / 826-5314
Fax 407 / 850-6945
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E83182

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-1	SA35SE30(2' SIDE WA)	5/4/99 10:02	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-1	SA35SE30(2' SIDE WA)	5/4/99 10:02	FLPRO	o-Terphenyl	72			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-1	SA35SE30(2' SIDE WA)	5/4/99 10:02	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-2	SA35SE31(2' SIDE W)_	5/4/99 10:10	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-2	SA35SE31(2' SIDE W)_	5/4/99 10:10	FLPRO	o-Terphenyl	101			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-2	SA35SE31(2' SIDE W)_	5/4/99 10:10	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-3	SA35SE32(2' SIDE WA)	5/4/99 10:17	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-3	SA35SE32(2' SIDE WA)	5/4/99 10:17	FLPRO	o-Terphenyl	107			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-3	SA35SE32(2' SIDE WA)	5/4/99 10:17	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	13-May-99
		Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-4	SA35SE33(2' SIDE WA)	5/4/99 10:24	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-4	SA35SE33(2' SIDE WA)	5/4/99 10:24	FLPRO	o-Terphenyl	109			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-4	SA35SE33(2' SIDE WA)	5/4/99 10:24	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-5	SA35SE34(8' SIDE WA)	5/4/99 10:30	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.7
OR6474-5	SA35SE34(8' SIDE WA)	5/4/99 10:30	FLPRO	o-Terphenyl	106			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-5	SA35SE34(8' SIDE WA)	5/4/99 10:30	SM2540G	Percent Solids	98			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-6	SA35SE35(8' SIDE WA)	5/4/99 10:39	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-6	SA35SE35(8' SIDE WA)	5/4/99 10:39	FLPRO	o-Terphenyl	75			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-6	SA35SE35(8' SIDE WA)	5/4/99 10:39	SM2540G	Percent Solids	96			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
		Date Reported:	13-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-7	SA35SE36(8' SIDE WA)	5/4/99 10:46	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.7
OR6474-7	SA35SE36(8' SIDE WA)	5/4/99 10:46	FLPRO	o-Terphenyl	118			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-7	SA35SE36(8' SIDE WA)	5/4/99 10:46	SM2540G	Percent Solids	98			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6474
		Date Submitted:	4-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	13-May-99
		Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-8	SA35SE37(8' SIDE WA)	5/4/99 10:55	FLPRO	Hydrocarbons (C8-C40)	10	U		mg/Kg	3.4	1.8
OR6474-8	SA35SE37(8' SIDE WA)	5/4/99 10:55	FLPRO	o-Terphenyl	107			%		

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULT	QUAL	DIL	UNITS	RDL	MDL
OR6474-8	SA35SE37(8' SIDE WA)	5/4/99 10:55	SM2540G	Percent Solids	97			%		

NOTE: Analyte values are reported on a dry weight basis.

U = Compound was analyzed for but not detected to the level shown.

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ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

QS' (# _____

PROJECT REFERENCE: NTC Orlando
PROJECT NO.: SA35
PO NUMBER:
PROJECT LOC. (State): FL
SAMPLER(s) NAME: Rusty Cope
PHONE: 496 2173
FAX:
CLIENT NAME: Eno Det Chas
CLIENT PROJECT MANAGER: AJ moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave N. Chas, SC 29405

PAGE 1 OF 2

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due 5/7/99
1AM

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	FLTRPH	NUMBER OF CONTAINERS SUBMITTED	REMARKS
1	5/4/99	1002	X		SA35SE 30					X					1		2' side walls
2		1010	X		SA35SE 31					X					1		
3		1017	X		SA35SE 32					X					1		
4		1024	X		SA35SE 33					X					1		
5		1030	X		SA35SE 34					X					1		8' side walls
6		1039	X		SA35SE 35					X					1		
7		1046	X		SA35SE 36					X					1		
8		1055	X		SA35SE 37					X					1		
9		1104	X		SA35SC 46					X					1		2' Side walls
10		1111			SA35SC 47					X					1		
11		1120			SA35SC 48					X					1		
12		1127			SA35SC 49					X					1		
13		1135			SA35SC 50					X					1		8' Side walls
14		1144			SA35SC 51					X					1		

	DATE	TIME		DATE	TIME		DATE	TIME
SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO			RELINQUISHED BY (SIGNATURE): RW Cope	5/4/99	13:45	RECEIVED BY (SIGNATURE): Jamesh. Dreggs	5/4/99	13:45
RELINQUISHED BY (SIGNATURE)			RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)		
RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)			RECEIVED BY (SIGNATURE)		

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
Kitt Fromm ☐Jacksonville ☐Orlando	5-4-99	2:30	☐YES ☒NO	Orl	

QSARF # _____

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Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC Orlando
PROJECT NO.: SA-35
PO NUMBER:
PROJECT LOC (State): FL
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX:
CLIENT NAME: Env Det Chas.
CLIENT PROJECT MANAGER: AJ Moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave; N. Chason, S. C. 29405

PAGE 2 OF 2

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: 5/7/99

MATRIX TYPE: SURFACE WATER, GROUND WATER, WASTEWATER, DRINKING WATER, SOIL/SOLID/SEDIMENT, NONAQUEOUS LIQUID (or solvent etc.), AIR, SLUDGE, OTHER

REQUIRED ANALYSIS: FLTRPH

SAMPLE STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID	AIR	SLUDGE	OTHER	FLTRPH (NUMBER OF CONTAINERS SUBMITTED)	REMARKS
1	5/4/99	1151	X		SA35SC52					X					1	
2	5/4/99	1200	X		SA35SC53					X					1	8' Side walls
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																

	DATE	TIME		DATE	TIME		DATE	TIME
SAMPLE KIT PREPARED BY: ☐ JACKSONVILLE ☐ ORLANDO			RELINQUISHED BY (SIGNATURE): RW Cope	5/4/99		RECEIVED BY (SIGNATURE): Jamesh. Megary	5/4/99	13:45
RELINQUISHED BY (SIGNATURE)			RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)		
RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)			RECEIVED BY (SIGNATURE)		

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO	REMARKS
K. Hill ☐ Jacksonville ☐ Orlando	5-4-99	7:30	☐ YES ☒ NO	ORG.	

Client:	Environmental Detachment Charleston	Report #:	OR6460
		Date Submitted:	3-May-99
		Date Reported:	6-May-99
Address:	1899 N. Hobson Ave	Project #:	SA
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-4	SA35SG26	5/1/99 11:25	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-4	SA35SG26	5/1/99 11:25	SM2540G	Percent Solids	95			%		

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6460
		Date Submitted:	3-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	6-May-99
		Project #:	SA
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-5	SA35SG27	5/1/99 11:34	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-5	SA35SG27	5/1/99 11:34	SM2540G	Percent Solids	96			%		

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6460
		Date Submitted:	3-May-99
		Date Reported:	6-May-99
Address:	1899 N. Hobson Ave	Project #:	SA
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-6	SA35SG28	5/1/99 11:41	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-6	SA35SG28	5/1/99 11:41	SM2540G	Percent Solids	95			%		

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6460
		Date Submitted:	3-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	6-May-99
		Project #:	SA
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-7	SA35SG29	5/1/99 11:50	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05
SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-7	SA35SG29	5/1/99 11:50	SM2540G	Percent Solids	96			%		

U = Compound was analyzed for but not detected to the level shown.

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Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC ORlando
PROJECT NO.: SA
P.O. NUMBER:
PROJECT LOC (State): FL
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX:
CLIENT NAME: ENV DET CHASN
CLIENT PROJECT MANAGER: A Moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave, N Charleston, SC 29405

PAGE ___ OF ___

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due 5/5/99

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	FLTRPH	Arsenic (ICP)	Total 8081 Pesticides							REMARKS
															NUMBER OF CONTAINERS SUBMITTED									
1	5/1/99	1100	X		SA35SI23 ✓					X					1									
2	5/1/99	1110	X		SA35SI24 ✓					X					1									
3	5/1/99	1118	X		SA35SI25 ✓					X					1									
4	5/1/99	1125	X		SA35SG26 ✓					X					1									Duplicate of SA35SI22
5	5/1/99	1134	X		SA35SG27 ✓					X					1									
6	5/1/99	1141	X		SA35SG28 ✓					X					1									
7	5/1/99	1150	X		SA35SG29 ✓					X					1									
8	5/1/99	1200	X		SA37S01 ✓					X				PWC	1									
9	5/1/99	1210	X		SA37S02 ✓					X				PWC	1									
10	5/1/99	1218	X		SA37S03 ✓					X				PWC	1									
11	5/1/99	1226	X		SA37S04 ✓					X				PWC	1									
12	5/1/99	1300	X		SA8S019 ✓										1									
13	5/1/99	1310	X		SA8S020 ✓										1									
14																								

SAMPLE KIT PREPARED BY: ☐ JACKSONVILLE ☐ ORLANDO	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
			K W Cope	5/3/99	1415	James H. Gregory	5/3/99	1415
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO	REMARKS
Kim J. ☐ Jacksonvi. ☒ Orlando	5/3/99	3:30pm	☐ YES ☒ NO	OR64[illegible]	

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	6-May-99
		Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-9	SA35SH17	5/1/99 10:01	7060	Arsenic	0.4	U		mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-9	SA35SH17	5/1/99 10:01	SM2540G	Percent Solids	96			%		

U = Compound was analyzed for but not detected to the level shown.

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
		Date Reported:	6-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-10	SA35SH18	5/1/99 10:10	7060	Arsenic	0.5			mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-10	SA35SH18	5/1/99 10:10	SM2540G	Percent Solids	94			%		

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
		Date Reported:	6-May-99
Address:	1899 N. Hobson Ave	Project #:	SA35
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-11	SA35SH19	5/1/99 10:18	7060	Arsenic	0.47			mg/Kg	0.4	0.05

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-11	SA35SH19	5/1/99 10:18	SM2540G	Percent Solids	96			%		

Q (#_____

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Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC Orlando
PROJECT NO.: SA 35
PO NUMBER:
PROJECT LOC (State): FL.
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX:
CLIENT NAME: ENV DET CHASN
CLIENT PROJECT MANAGER: A. Moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave, N. Chas, SC 29405

PAGE ___ OF ___

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: 5/5/99 PM

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	FL TRPH	Arsenic (TCP)								REMARKS
															NUMBER OF CONTAINERS SUBMITTED									
1	4/30/99	1415	X		SA35SA9 ✓					X					1	X								
2	4/30/99	1420	X		SA35SA10 ✓					X					1	X								
3	4/30/99	1426	X		SA35 SA 11 ✓					X					1	X								
4	4/30/99	1435	X		SA35 SA12 ✓					X					1	X								
5	4/30/99	1450	X		SA35SB 13 ✓					X					1	X								
6	4/30/99	1458	X		SA35SB 14 ✓					X					1	X								
7	4/30/99	1505	X		SA35SB 15 ✓					X					1	X								
8	4/30/99	1510	X		SA35SB 16 ✓					X					1	X								
9	5/1/99	1001	X		SA35SH 17 ✓					X						1								
10	5/1/99	1010	X		SA35 SH 18 ✓					X						1								
11	5/1/99	1018	X		SA35 SH 19 ✓					X						1								
12	5/1/99	1027	X		SA35 SH 20 ✓					X						1								
13	5/1/99	1045	X		SA35 SI 21 ✓					X						1								
14	5/1/99	1053	X		SA35 SI 22 ✓					X						1								

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE) RW Cope	DATE 5/3/99	TIME 1415	RECEIVED BY (SIGNATURE) Samuel J. Dreyong	DATE 5/3/99	TIME 1415
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
R. Hrm ☐ Jacksonvi ☐ Orlando	5-3-99	3:30	☐ YES ☐ NO	0R6 1	

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/874.
NC	233	
NJ	79002	79002
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197 Report Date: May 14, 1999

Sample ID	: 99SPORT0175-3
Lab ID	: 9905315-03
Matrix	: Soil
Date Collected	: 05/10/99
Date Received	: 05/11/99
Priority	: Rush
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Arsenic	U	ND	441	485	ug/kg	2.0	MBL	05/12/99	1051	148886	1

The following prep procedures were performed:

TRACE	FGD	05/11/99	2000	148886	2

M = Method	Method-Description
M 1	EPA 6010B
M 2	EPA 3050

Notes:
The qualifiers in this report are defined as follows:
ND indicates that the analyte was not detected at a concentration greater than the detection limit.
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).
U indicates that the analyte was not detected at a concentration greater than the detection limit.
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Elise Hanson at 843-556-8171.

E Hanson

Reviewed By

P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29407
(843) 556-8171 • Fax (843) 766-1178

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9905315-03

(N F W C 0019 / 99 (315%

CHAIN OF CUSTODY RECORD

General Engineering Lab (..es, Inc.
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Charleston, South Carol. ..07
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

Page 1 of 1

Client Name/Facility Name: NTC ORlando

Collected by/Company: ENV DET CHASN

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

40172

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	Arsenic	Remarks
01	99Sport0175-1	5/10/99	1720		X	X		1																X	SA35SA54
02	99Sport0175-2	5/10/99	1725		X	X		1																X	SA35SA55
03	99Sport0175-3	5/10/99	1730		X	X		1																X	SA35SB56
04	99Sport0175-4	5/10/99	1735		X	X		1																X	SA35SB57
05	99Sport0175-5	5/10/99	1740		X	X		1																X	SA35SI58
06	99Sport0175-6	5/10/99	1745		X	X		1																X	SA35SI59
07	99Sport0175-7	5/10/99	1755		X	X		1																X	SA8S046
08	99Sport0175-8	5/10/99	1800		X	X		1																X	SA8S047
09	99Sport0175-9	5/10/99	1805		X	X		1																X	SA8S048
0	99Sport0175-10	5/10/99	1810		X	X		1																X	SA8S049
																									2½' from Stake

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
R W Cope	5/10/99	1900					
Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:	
			Kristand Hamel	5-11-99	0700		

White ..le collector Yellow = file Pink = with report

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/874
NC	233	
NJ	79002	79002
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 14, 1999

Sample ID	: 99SPORT0175-5
Lab ID	: 9905315-05
Matrix	: Soil
Date Collected	: 05/10/99
Date Received	: 05/11/99
Priority	: Rush
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Arsenic	U	ND	438	481	ug/kg	2.0	MBL	05/12/99	1103	148886	

The following prep procedures were performed:

TRACE	FGD	05/11/99	2000	148886	2

M = Method	Method-Description
M 1	EPA 6010B
M 2	EPA 3050

Notes:
The qualifiers in this report are defined as follows:
ND indicates that the analyte was not detected at a concentration greater than the detection limit.
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).
U indicates that the analyte was not detected at a concentration greater than the detection limit.
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed
in accordance with General Engineering Laboratories
standard operating procedures. Please direct
any questions to your Project Manager, Elise Hanson at 843-556-8171.

.eviewed By

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9905315-05

NPWC00197 99 315%

CHAIN OF CUSTODY RECORD

Page 1 of 1

General Engineering Lab[illegible]s, Inc.
2040 Savage Road
Charleston, South Carol[illegible]07
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

Client Name/Facility Name: NTC Orlando

Collected by/Company: Env Det Chasn

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

40172

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	Arsenic	Remarks
-01	99Sport0175-1	5/10/99	1720		X	X		1																X	SA35SA54
-02	99Sport0175-2	5/10/99	1725		X	X		1																X	SA35SA55
-03	99Sport0175-3	5/10/99	1730		X	X		1																X	SA35SH56
-04	99Sport0175-4	5/10/99	1735		X	X		1																X	SA35SH57
-05	99Sport0175-5	5/10/99	1740		X	X		1																X	SA35SI58
-06	99Sport0175-6	5/10/99	1745		X	X		1																X	SA35SI59
-07	99Sport0175-7	5/10/99	1755		X	X		1																X	SA8S046
-08	99Sport0175-8	5/10/99	1800		X	X		1																X	SA8S047
-09	99Sport0175-9	5/10/99	1805		X	X		1																X	SA8S048
-10	99Sport0175-10	5/10/99	1810		X	X		1																X	SA8S049
																									2½' from Stake

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
K W Cope	5/10/99	1900					
Relinquished by:	Date:	Time:	Received by lab by: [signature]	Date: 5-11-99	Time: 0700	Remarks:	

White = [illegible]le collector Yellow = file Pink = with report

Client:	Environmental Detachment Charleston	Report #:	OR6459
		Date Submitted:	3-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	6-May-99
		Project #:	SA35
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-14	SA35SI22	5/1/99 10:53	7060	Arsenic	0.8			mg/Kg	0.4	0.06

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6459-14	SA35SI22	5/1/99 10:53	SM2540G	Percent Solids	90			%		

C (=#_____

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Orlando, Florida 32824
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ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC Orlando
PROJECT NO.: SA 35
P.O. NUMBER:
PROJECT LOC. (State): FL.
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX:
CLIENT NAME: ENV DET CHASN
CLIENT PROJECT MANAGER: A. Moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave, N. Chas, SC 29405

PAGE ___ OF ___

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due 5/5/99 PM

STATION	SAMPLE DATE	SAMPLE TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	FL TRPH	Arsenic (TCP)								NUMBER OF CONTAINERS SUBMITTED	REMARKS
1	4/30/99	1415	X		SA35SA9 ✓					X					1	X									
2	4/30/99	1420	X		SA35SA10 ✓					X					1	X									
3	4/30/99	1426	X		SA35 SA11 ✓					X					1	X									
4	4/30/99	1435	X		SA35 SA12 ✓					X					1	X									
5	4/30/99	1450	X		SA35SB 13 ✓					X					1	X									
6	4/30/99	1458	X		SA35SB 14 ✓					X					1	X									
7	4/30/99	1505	X		SA35SB 15 ✓					X					1	X									
8	4/30/99	1510	X		SA35SB 16 ✓					X					1	X									
9	5/1/99	1001	X		SA35SH 17 ✓					X						1									
10	5/1/99	1010	X		SA35 SH 18 ✓					X						1									
11	5/1/99	1018	X		SA35 SH 19 ✓					X						1									
12	5/1/99	1027	X		SA35 SH 20 ✓					X						1									
13	5/1/99	1045	X		SA35 SI 21 ✓					X						1									
14	5/1/99	1053	X		SA35 SI 22 ✓					X						1									

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			RW Cope	5/3/99	1415	Jamesh. Dregong	5/3/99	1415
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
K. Hrm ☐ Jacksonv ☐ Orlando	5-3-99	3:30	☐ YES ☐ NO	1R6 7	

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Orlando, Florida 32824-8529
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Fax 407 / 850-6945
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E83182

Client:	Environmental Detachment Charleston	Report #:	OR6460
		Date Submitted:	3-May-99
Address:	1899 N. Hobson Ave Charleston, SC 29405-2106	Date Reported:	6-May-99
		Project #:	SA
		Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-1	SA35SI23	5/1/99 11:00	7060	Arsenic	1.1			mg/Kg	0.4	0.06
SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-1	SA35SI23	5/1/99 11:00	SM2540G	Percent Solids	90			%		

Client:	Environmental Detachment Charleston	Report #:	OR6460
		Date Submitted:	3-May-99
		Date Reported:	6-May-99
Address:	1899 N. Hobson Ave	Project #:	SA
	Charleston, SC 29405-2106	Project Name:	NTC Orlando

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-2	SA35SI24	5/1/99 11:10	7060	Arsenic	0.83			mg/Kg	0.4	0.06

SAMPLE ID	CLIENT ID	COLLECT DATE	METHOD	PARAMETER	RESULTS	QUAL	DIL	UNITS	RDL	MDL
OR6460-2	SA35SI24	5/1/99 11:10	SM2540G	Percent Solids	90			%		

QSARF #_____

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Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC ORlando
PROJECT NO.: SA
P.O. NUMBER:
PROJECT LOC (State): FL
SAMPLER(s) NAME: Rusty Cope
PHONE: 496-2173
FAX:
CLIENT NAME: Enu DET Chasn
CLIENT PROJECT MANAGER: A Moyer
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N Hobson Ave, N Charleston, SC 29405

PAGE ___ OF ___

☐ STANDARD REPORT DELIVERY
☑ EXPEDITED REPORT DELIVERY (surcharge)
Date Due 5/5/99

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	FL TRPH	Arsenic (ICP)	Total Pesticides 8081								REMARKS
															NUMBER OF CONTAINERS SUBMITTED										
1	5/1/99	1100	X		SA35SI23 ✓					X					1										
2	5/1/99	1110	X		SA35SI24 ✓					X					1										
3	5/1/99	1118	X		SA35SI25 ✓					X					1										Duplicate of SA35SI22
4	5/1/99	1125	X		SA35SG26 ✓					X					1										
5	5/1/99	1134	X		SA35SG27 ✓					X					1										
6	5/1/99	1141	X		SA35SG28 ✓					X					1										
7	5/1/99	1150	X		SA35SG29 ✓					X					1										
8	5/1/99	1200	X		SA37S01 ✓					X				PWC	1										
9	5/1/99	1210	X		SA37S02 ✓					X				PWC	1										
10	5/1/99	1218	X		SA37S03 ✓					X				PWC	1										
11	5/1/99	1226	X		SA37S04 ✓					X				PWC	1										
12	5/1/99	1300	X		SA8S019 ✓										1										
13	5/1/99	1310	X		SA8S020 ✓										1										
14																									

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
			RW Cope	5/3/99	1415	Gerald. Gregory	5/3/99	1415
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO	REMARKS
Kim ☐ Jacksonv. ☒ Orlando	5/3/99	3:30pm	☐ YES ☒ NO	OR6.	

WASTE CHARACTERIZATION

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/8745
NC	233	
NJ	79002	79002
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197 Report Date: April 21, 1999

Sample ID	: 99SPORT0153-1
Lab ID	: 9904503-01
Matrix	: TCLP
Date Collected	: 04/15/99
Date Received	: 04/16/99
Priority	: Rush
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
·ad		1040	15.9	50.0	ug/l	10.	MBL	04/21/99	0925	147160	1
The following prep procedures were performed:											
TCLP Prep for Metals							JL	04/19/99	1815	147011	2

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 1311

Notes:
The qualifiers in this report are defined as follows:
ND indicates that the analyte was not detected at a concentration greater than the detection limit.
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).
U indicates that the analyte was not detected at a concentration greater than the detection limit.
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Elise Hanson at 843-556-8171.

Thomas M. Grahnert

ıewed By

P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29407
(843) 556-8171 • Fax (843) 766-1178
Printed on recycled paper.

9904503-01

(VPWC0011)

9.(4503)

CHAIN OF CUSTODY RECORD

— 3 DAY TURN AROUND —

Page 1 of 1

General Engineering Labor (, Inc.
2040 Savage Road
Charleston, South Carolin. 37
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

Client Name/Facility Name: SPORTENVDETCHASN

Collected by/Company: SPORTENVDETCHASN

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

39099

SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	TCLP-LEAD	Remarks
01-995PORTØ153-1	4-15/99	1425		X		X	1																X	S/A 35 AREA "A"
																								FEDEX AIRB. # 809872801958

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
William D. Olen	4-15/99	1515					

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:
			P. Power	4-16-99	10:30	

White = sample collector Yellow = file Pink = with report

ENCO LABORATORIES
REPORT # : OR6327A
DATE REPORTED: April 30, 1999
PROJECT NAME : NTC-Orlando

RESULTS OF ANALYSIS

TCLP METALS	METHOD	SA-35009	SA-35013	Units
TCLP Arsenic Date Analyzed	1311/7060	0.050 U 04/23/99	0.050 U 04/23/99	mg/L
TCLP Barium Date Analyzed	1311/7080	2.0 U 04/23/99	2.0 U 04/23/99	mg/L
TCLP Cadmium Date Analyzed	1311/7130	0.10 U 04/23/99	0.10 U 04/23/99	mg/L
TCLP Chromium Date Analyzed	1311/7190	0.50 U 04/23/99	0.50 U 04/23/99	mg/L
TCLP Lead Date Analyzed	1311/7420	0.50 U 04/23/99	0.50 U 04/23/99	mg/L
TCLP Mercury Date Analyzed	1311/7470	0.0050 U 04/26/99	0.0050 U 04/26/99	mg/L
TCLP Selenium Date Analyzed	1311/7740	0.050 U 04/25/99	0.050 U 04/25/99	mg/L
TCLP Silver Date Analyzed	1311/7760	0.20 U 04/23/99	0.20 U 04/23/99	mg/L

Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 1311/8080 - TCLP PESTICIDES	SA-35015	SA-80001	Units
Chlordane (Total)	NR	1.0 U	µg/L
Endrin	NR	0.050 U	µg/L
Heptachlor	NR	0.050 U	µg/L
Heptachlor Epoxide	NR	0.050 U	µg/L
gamma-BHC (Lindane)	NR	0.050 U	µg/L
Methoxychlor	NR	1.0 U	µg/L
Toxaphene	NR	2.0 U	µg/L

Surrogate:		% RECOV	LIMITS
2,4,5,6-TCMX		80	30-150
		80	34-138
e Extracted		04/28/99	
Date Analyzed		04/29/99	

Analysis not requested for this sample.
U Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : OR6327A
DATE REPORTED: April 30, 1999
PROJECT NAME : NTC-Orlando

RESULTS OF ANALYSIS

TCLP METALS	METHOD	SA-35015	SA-80001	Units
TCLP Arsenic Date Analyzed	1311/7060	0.050 U 04/23/99	**0.060** 04/23/99	mg/L
TCLP Barium Date Analyzed	1311/7080	2.0 U 04/23/99	2.0 U 04/23/99	mg/L
TCLP Cadmium Date Analyzed	1311/7130	0.10 U 04/23/99	0.10 U 04/23/99	mg/L
TCLP Chromium Date Analyzed	1311/7190	0.50 U 04/23/99	0.50 U 04/23/99	mg/L
TCLP Lead Date Analyzed	1311/7420	0.50 U 04/23/99	**0.50** 04/23/99	mg/L
TCLP Mercury Date Analyzed	1311/7470	0.0050 U 04/26/99	0.0050 U 04/26/99	mg/L
TCLP Selenium Date Analyzed	1311/7740	0.050 U 04/25/99	0.050 U 04/25/99	mg/L
TCLP Silver Date Analyzed	1311/7760	0.20 U 04/23/99	0.20 U 04/23/99	mg/L

Compound was analyzed for but not detected to the level shown.

ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive
Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

QS(#_____

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: NTC Orlando
PROJECT NO.:
P.O. NUMBER:
PROJECT LOC. (State): FL
SAMPLER(s) NAME: R. Cope
PHONE: 496-2173
FAX: 861-5468
CLIENT NAME: ENV DET CHASN
CLIENT PROJECT MANAGER: Rasjuan Inn
CLIENT ADDRESS (CITY, STATE, ZIP): 1899 N. Hobson Ave N. Charleston, S.C 29405

PAGE ___ OF ___

☐ STANDARD REPORT DELIVERY
☐ EXPEDITED REPORT DELIVERY (surcharge)
Date Due:

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	TCLP Metals	TCLP Pesticides								REMARKS
															NUMBER OF CONTAINERS SUBMITTED									
1	4/20/99	1450	X		SA-35009					✓					X1									
2	4/20/99	1505	X		SA 35013					✓					X1									
3	4/20/99	1540	X		SA-35015					✓					X1									
4	4/20/99	1640		X	SA-80001					✓					1	X	TCLP Pesticides Requested							5 locations Area A
5	4/20/99	1700		X	SA-80002					✓					1	X	on 4-28-99.							5 Locations Area B
6	4/20/99	1720		X	SA-80003					✓					1	X								5 Locations Area C
7	4/21/99	1010	X		SA-42002					✓					1									
8	4/21/99	1022	X		SA-42001					✓					1									
9	4/21/99	1120	X		SA-23005					✓					1									
10	4/21/99	1145		X	SA-18008					✓						1								McCoy Annex
11	4/21/99	1201		X	SA-17035					✓						1								" 5 Locations
12																1								" 5 locations
13																								
14																								

	DATE	TIME			DATE	TIME			DATE	TIME
SAMPLE KIT PREPARED BY: ☐ JACKSONVILLE ☐ ORLANDO	4/21/99	1240	RELINQUISHED BY (SIGNATURE): R W Cope				RECEIVED BY (SIGNATURE):			
RELINQUISHED BY (SIGNATURE):	4/21/99	1240	RECEIVED BY (SIGNATURE): David Henry				RELINQUISHED BY (SIGNATURE):			
RECEIVED BY (SIGNATURE):			RELINQUISHED BY (SIGNATURE):				RECEIVED BY (SIGNATURE):			

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO	REMARKS
Kevin C ☐ Jacksonville ☒ Orlando	4/21/99	12:40PM	☐ YES ☒ NO	OR63:	

APPENDIX F

COMPLETION REPORT, INTERIM REMEDIAL ACTION
ENVIRONMENTAL ENTERPRISE GROUP

From: Dailey, Todd [mailto:tdailey@eeg-scra.org]
Sent: Thursday, September 28, 2000 12:02 PM
To: 'Wayne Hansel (E-mail)'
Cc: Albers, Rick; Lewis, Terry; Wannamaker, Copes
Subject: SA-35 Completion

Mr. Hansel,

The Environmental Enterprise Group has completed the work at SA-35 (Naval Training Center, Orlando) per contract no. N00024-99-8136, delivery order no. 0005, Amendment no. 3. This work was accomplished August 5, 2000 through August 7, 2000 and included the following:

* Excavation of the identified area between building 2079 and paved area. The area was approximately 10' x 25' x 2' deep.

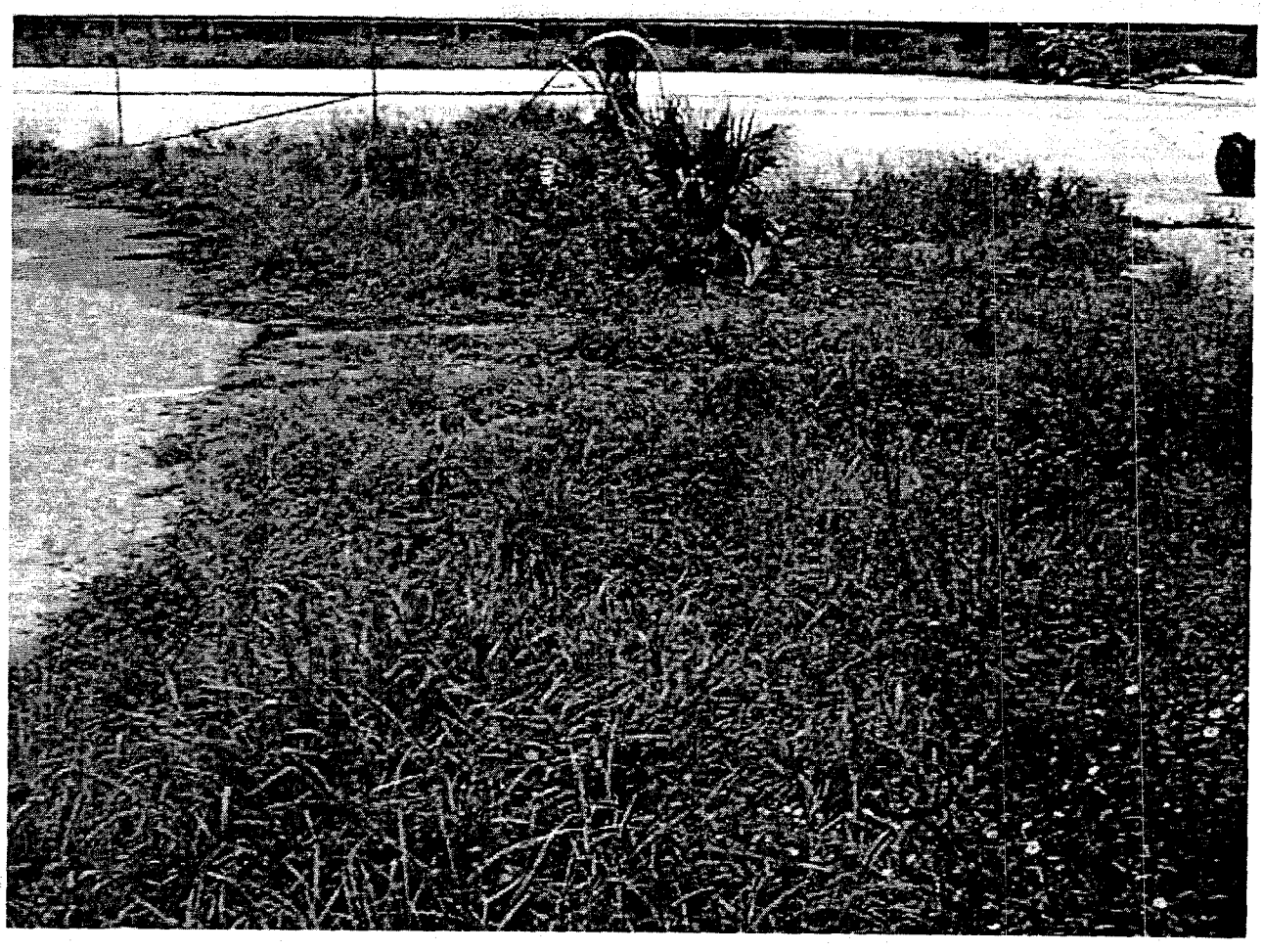
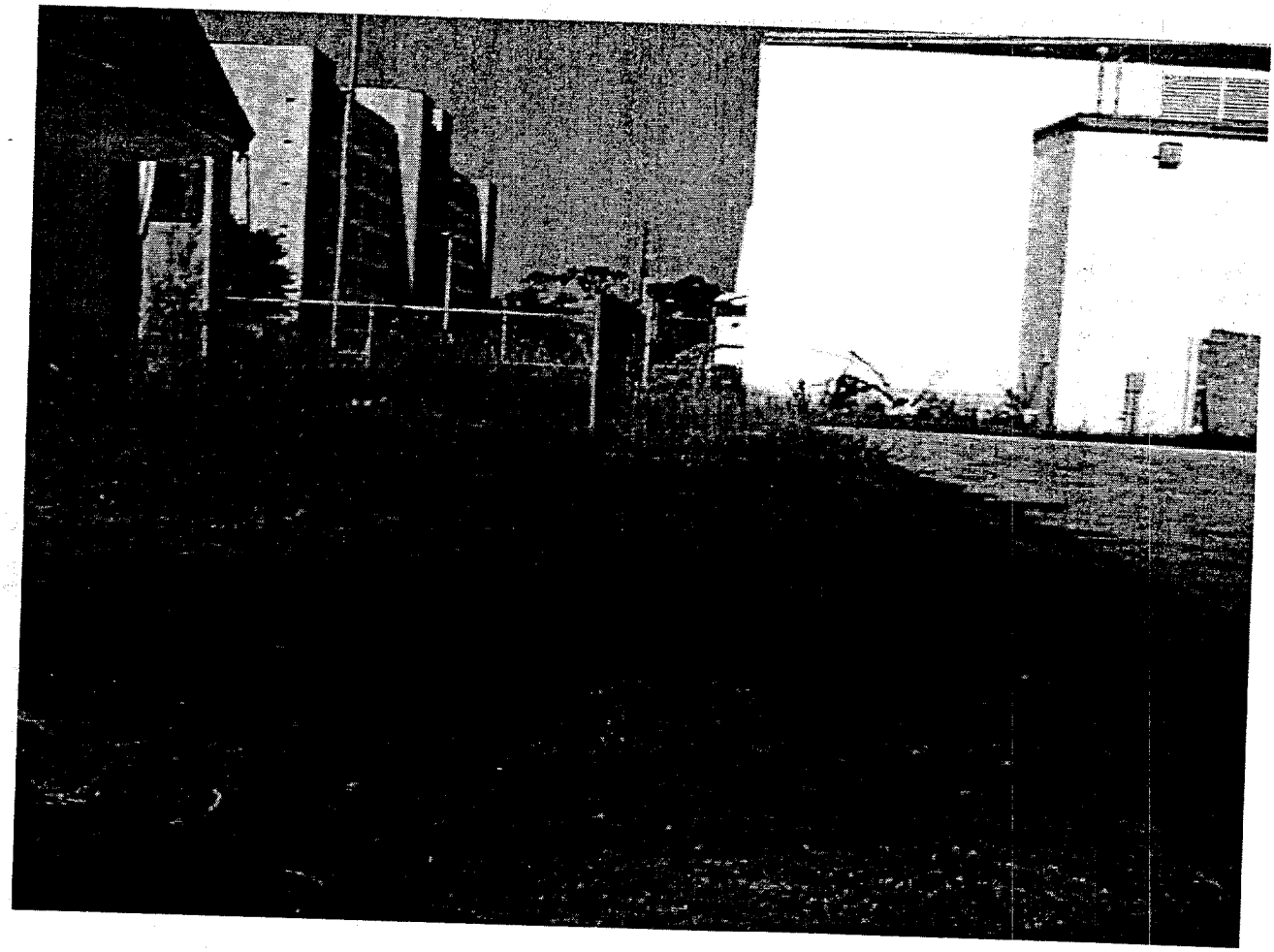
* Transport of excavated soil to the McCoy Annex landfill area. The amount of soil removed was approximately 20 cubic yards.

* Backfill of excavation with clean fill and restoration of site to original conditions.

The attached pictures show the conditions at SA-35 before and after work completion.

SA35-Before.jpg SA35-Excavation.jpg SA35-Backfill.jpg

If you have any questions please contact Todd Dailey at (843) 202-8068 or via E-mail at tdailey@eeg-scra.org.

Thank You,

Todd M. Dailey
Program Manager
Environmental Enterprise Group