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# FINAL BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT STUDY AREA 4 NTC ORLANDO FL

7/1/1996

ABB ENVIRONMENTAL

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# BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE-SCREENING REPORT

00036

## STUDY AREA 4

## NAVAL TRAINING CENTER ORLANDO, FLORIDA

**Unit Identification Code: N65928**

**Contract No. N62467-89-D-0317/107**

**Prepared by:**

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**July 1996**

CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/107 are complete and accurate and comply with all requirements of this contract.

DATE: July 17, 1996

NAME AND TITLE OF CERTIFYING OFFICIAL: John Kaiser
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL: Mark Salvetti
Project Technical Lead

(DFAR 252.227-7036)

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## GLOSSARY

| | |
|---|---|
| bls | below land surface |
| FDEP | Florida Department of Environmental Protection |
| FOST | Finding of Suitability to Transfer |
| $\mu$g/kg | micrograms per kilogram |
| OPT | Orlando Partnering Team |
| PCBs | polychlorinated biphenyls |
| RBC | risk-based concentration |
| SCG | soil cleanup goal |
| TPH | total petroleum hydrocarbon |
| USEPA | U.S. Environmental Protection Agency |

# 1.0 STUDY AREA 4, RUSK MEMORIAL CHAPEL AND ANNEX

This report contains information gathered as a result of site-screening activities conducted at Study Area 4. In the fall of 1995, after the review of site-screening results, the Orlando Partnering Team (OPT) determined that no further action was required at Study Area 4 and that the parcel was transferrable under the provisions of a Finding of Suitability to Lease or Finding of Suitability to Transfer (FOST).

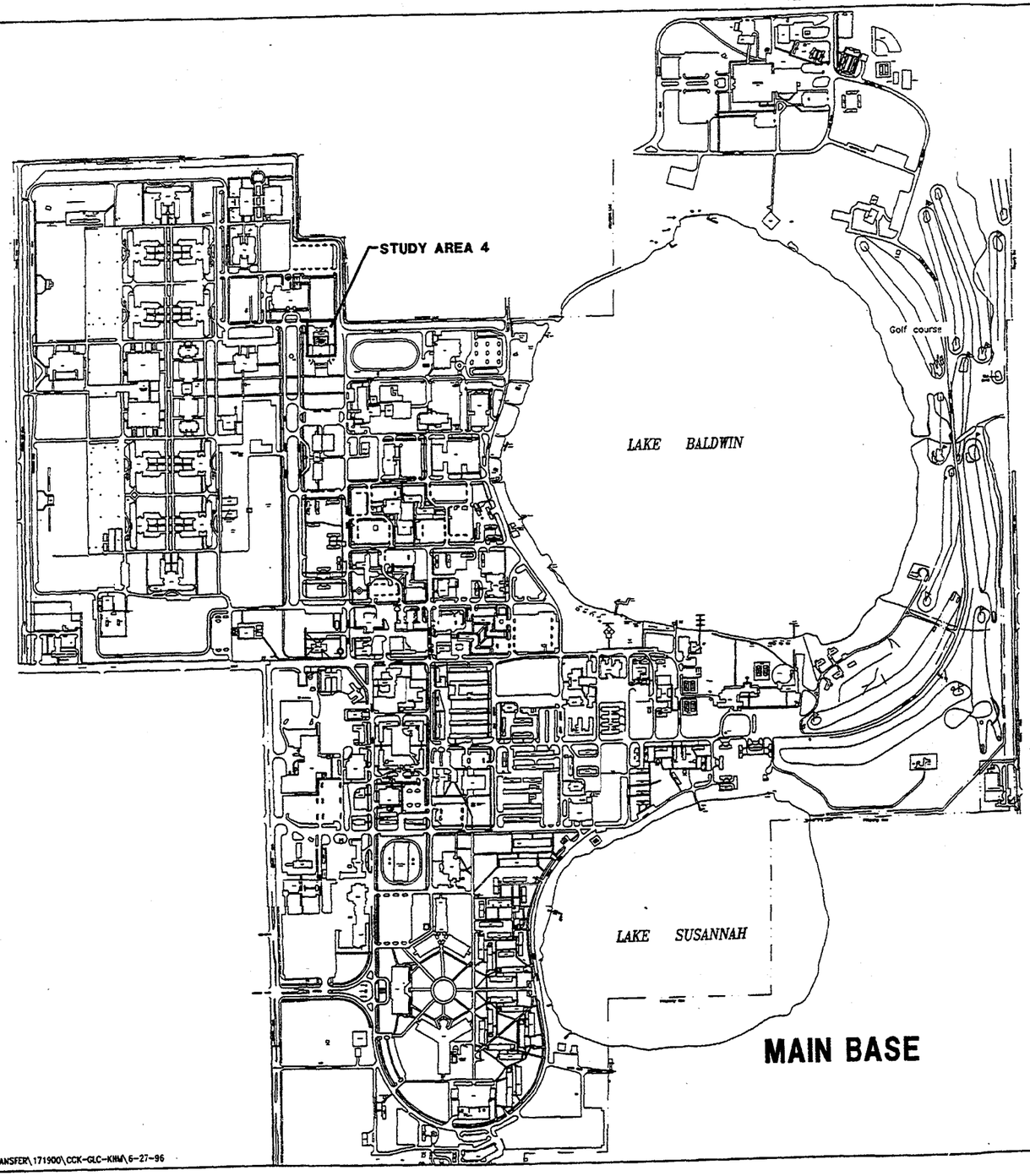
**1.1 STUDY AREA 4, BACKGROUND AND CONDITIONS.** Study Area 4 is located in the northwest part of the Main Base (Figure 1) and consists of the Rusk Memorial Chapel (Building 250) and Annex (Building 251) (Figure 2). A spill of an undetermined quantity of dielectric transformer fluid containing polychlorinated biphenyls (PCBs) was reported to have occurred in the mid-1980s, in an uncovered mechanical room located between Rusk Memorial Chapel (Building 250) and the Chapel Annex (Building 251). Stains were observed on concrete pads and crushed stone in the mechanical room during the Environmental Baseline Survey. Details of past response actions at this site were not available from the Naval Training Center Public Works Department.

**1.2 STUDY AREA 4, INVESTIGATION SUMMARY.** Three soil borings (04B001, 04B002, and 04B003; Figure 2) were advanced on the north, south, and east sides of the concrete transformer pad using a hand auger. The west side of the pad was inaccessible due to the nearby wall. The general stratigraphic profile consisted of 1/2 to 12 inches of pea gravel overlying brown, black, and white, fine sandy fill material. Cinders were encountered at depths of 2 to 3 feet in borings 04B001 and 04B002. A pungent odor was noted at a depth of approximately 2 feet in boring 04B002 on the east side of the transformer pad. No deflection of the flame ionization detector was noted during sample collection in the pungent soil. Hand-augered borings were back-filled to the existing ground surface with bentonite chips. Boring logs are included in Appendix A.

Soil samples were collected at 1-foot depth intervals, to a maximum depth of 5 feet in each of the soil borings. A total of 14 soil samples was screened for PCBs by immunoassay in accordance with U.S. Environmental Protection Agency (USEPA) Method 4020. Immunoassay analyses did not detect PCB concentrations above the detection limit of 0.5 part per million in any of the samples analyzed.

One soil sample from each of the three borings was submitted for total petroleum hydrocarbon (TPH), Contract Laboratory program semivolatile organic compounds, PCBs, and target analyte list inorganics analyses in accordance with USEPA Level IV data quality objectives. Samples submitted for laboratory analyses represent soil from depth intervals of 3 to 4 feet below land surface (bls) (04B00101), 2 to 3 feet bls (04B00201), and 1 to 2 feet bls (04B00301). Selection was biased toward those samples that were most likely to be contaminated, based on field observations.

**1.3 STUDY AREA 4, RESULTS.** A summary of positive detections in soil analytical results is presented in Appendix B. A complete set of soil analytical results (including immunoassay) is presented in Appendix C.




N

0 500 1000
SCALE: 1 INCH = 1000 FEET

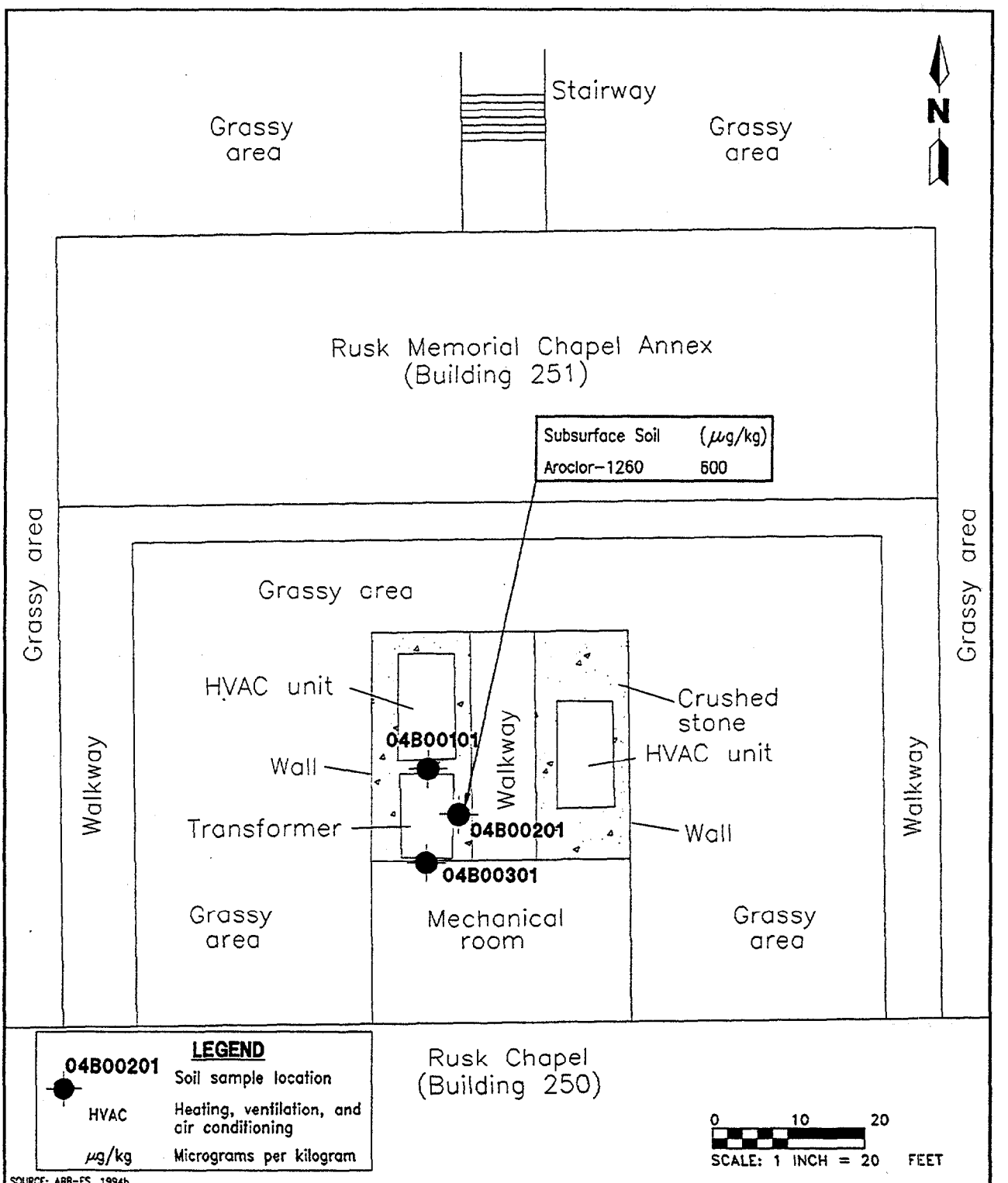
SOURCE: ABB-ES 1994b.

**FIGURE 1**
**LOCATION OF STUDY AREA 4**

**BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT**

**NAVAL TRAINING CENTER ORLANDO, FLORIDA**

H:\TRANSFER\171900\CCK-GLC-KHM\6-27-96




SOURCE: ABB-ES, 1994b.

**FIGURE 2**
**SOIL SAMPLE LOCATIONS AT BUILDINGS 250 AND 251, RUSK MEMORIAL CHAPEL, STUDY AREA 4**

**BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT**

**NAVAL TRAINING CENTER ORLANDO, FLORIDA**

H:\5585\171900\CCK-GLC-khm\6-5-96

Aroclor-1260 was detected in subsurface sample 04B00201 (600 micrograms per kilogram [$\mu$g/kg]) and surface sample 04B00301 (67 $\mu$g/kg). The PCB concentration in 04B00201 exceeds the residential risk-based concentration (RBC) of 83 $\mu$g/kg. The concentration of Aroclor-1260 in surface soil sample 04B00201 is less than the residential soil cleanup goal (SCG). TPH was detected at 170 milligrams per kilogram in sample 04B00201. Leachability-based SCGs do not apply at Study Area 4. The reported PCB release is not recent. PCBs are highly immobile in soil and have a very low water solubility. The soil boring data indicate that PCBs did not migrate to the water table and, therefore, are unlikely to be present in groundwater above Florida Department of Environmental Protection (FDEP) maximum contaminant levels.

Aluminum, barium, beryllium, calcium, chromium, copper, iron, lead, magnesium, manganese, and sodium were detected in subsurface soil above background screening concentrations, but below the corresponding residential RBCs. All inorganic concentrations in surface soil sample 04B00301 were less than the corresponding residential SCGs.

1.4 STUDY AREA 4, CONCLUSIONS AND RECOMMENDATIONS. All compounds detected in surface soil sample 04B00301 were at concentrations below the corresponding residential SCGs. PCBs above the residential RBC were detected in a subsurface soil sample from 2 to 3 feet bls. However, the Florida residential SCG for PCBs in surface soil is 900 $\mu$g/kg. Although the SCGs do not apply to subsurface soil, subsurface soil poses less risk of exposure than surface soil. Because the concentration of PCBs in subsurface soil (maximum 600 $\mu$g/kg) is less than the surface soil SCG, it can be inferred that Study Area 4 does not represent an environmental concern, and no further evaluation of the transformer area is warranted.

A 2,500-gallon heating oil underground storage tank is associated with Building 250. The tank was removed on August 9, 1995, and the tank closure assessment was completed on November 14, 1995, with a recommendation of no further assessment. The Tank Closure Assessment Report was approved by FDEP on December 21, 1995. Therefore, ABB Environmental Services, Inc., recommends an FOST for Study Area 4 and that the color classification for Buildings 250 and 251 be changed from 7/Gray to 2/Blue.

The undersigned members of the OPT concur with the findings of the preceding investigation.

| STUDY AREA 4 | |
|---|---|
| Nancy Rodriguez<br>U.S. Environmental Protection Agency, Region IV | 7/24/96<br>Date |
| John Mitchell<br>Florida Department of Environmental Protection | 7/24/96<br>Date |
| Wayne Hansel<br>U.S. Department of the Navy | 7/24/96<br>Date |

# APPENDIX A

# BORING LOGS

| | | | |
|---|---|---|---|
| **Project:** BRAC NTC, Group I, Site Screening | **Well ID:** N/A | | **Boring ID:** 04B001 |
| **Client:** SOUTHNAVFACENGCOM | **Contractor:** | | **Job No.:** CTO-107 |
| **Northing:** n/a | **Easting:** n/a | **Date started:** 10/27/94 | **Complted:** 10/27/94 |
| **Method:** Hand Auger | **Casing dia.:** n/a | **Screened int.:** n/a | **Protection level:** D |
| **TOC elev.:** n/a Ft. | **Type of OVM.:** Porta FID | **Total dpth:** 5Ft. | **Dpth to** ∇ Ft. |
| **ABB Rep.:** G. Girardot | **Well development date:** n/a | | **Site:** Study Area 04 |

| Depth Ft. | Laboratory Sample ID. | Sample | Recovery | Headspace (ppm) | Soil/Rock Description and comments | Lithologic symbol | Soil class. | Blows/6-in. | Well diag. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | n/a | PEA GRAVEL | | GW | 0-5'bls: hand auger | |
| | | | | | QUARTZ SAND: Light brown, fine-grained. | | SP | | |
| | | | | 0ppm | QUARTZ SAND: Light brown, fine-grained. | | | | |
| | | | | 0ppm | QUARTZ SAND: White to brown to dark brown mottled, fine-grained, no odor. | | | | |
| | | | | 0ppm | QUARTZ SAND: Dark brown to light brown, fine-grained, trace cinders. | | | | |
| | 04B00101<br>04B00101D | | | 0ppm | QUARTZ SAND: White, fine-grained. | | | | |
| 5 | | | | | | | | | |
| 10 | | | | | | | | | |

 ABB ENVIRONMENTAL SERVICES, INC.

| | | | |
|---|---|---|---|
| **Project:** BRAC NTC, Group I, Site Screening | | **Well ID:** N/A | **Boring ID:** 04B002 |
| **Client:** SOUTHNAVFACENGCOM | **Contractor:** | | **Job No.:** CTO-107 |
| **Northing:** n/a | **Easting:** n/a | **Date started:** 10/27/94 | **Compltd:** 10/27/94 |
| **Method:** Hand Auger | **Casing dia.:** n/a | **Screened int.:** n/a | **Protection level:** D |
| **TOC elev.:** n/a Ft. | **Type of OVM:** Porta FID | **Total dpth:** 5Ft. | **Dpth to** ∇ Ft. |
| **ABB Rep.:** G. Girardot | **Well development date:** n/a | | **Site:** Study Area 04 |

| Depth Ft. | Laboratory Sample ID. | Sample | Recovery | Headspace (ppm) | Soil/Rock Description and comments | Lithologic symbol | Soil class. | Blows/6-in. | Well diag. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | n/a | PEA GRAVEL | | GW | 0-5'bls: hand auger | |
| | | | | 0ppm | QUARTZ SAND: Light brown, fine-grained. | | SP | | |
| | | | | 0ppm | QUARTZ SAND: Light brown, fine-grained, trace coarse gravel-sized black cinders, pungent odor. | | | | |
| | 04B00201 | | | 0ppm | QUARTZ SAND: Very light brown, fine-grained, trace cinders. | | | | |
| | | | | 0ppm | QUARTZ SAND: Very light brown, fine-grained. | | | | |
| 5 | | | | | | | | | |
| 10 | | | | | | | | | |

 ABB ENVIRONMENTAL SERVICES, INC.

| | | | |
|---|---|---|---|
| **Project:** BRAC NTC, Group I, Site Screening | **Well ID:** N/A | | **Boring ID:** 04B003 |
| **Client:** SOUTHNAVFACENGCOM | **Contractor:** | | **Job No.:** CTO-107 |
| **Northing:** n/a | **Easting:** n/a | **Date started:** 10/27/94 | **Compltd:** 10/27/94 |
| **Method:** Hand Auger | **Casing dia.:** n/a | **Screened int.:** n/a | **Protection level:** D |
| **TOC elev.:** n/a Ft. | **Type of OVM.:** Porta FID | **Total dpth:** 5Ft. | **Dpth to** ∇ Ft. |
| **ABB Rep.:** G. Girardot | **Well development date:** n/a | | **Site:** Study Area 04 |

| Depth Ft. | Laboratory Sample ID. | Sample | Recovery | Headspace (ppm) | Soil/Rock Description and comments | Lithologic symbol | Soil class. | Blows/6-in. | Well diag. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | n/a | PEA GRAVEL | | GW | 0-5'bls: hand auger | |
| | | | | | QUARTZ SAND: Light brown to gray, fine-grained. | | SP | | |
| | | | | 0ppm | QUARTZ SAND: Dark brown, fine-grained. | | | | |
| | 04B00301 | | | | | | | | |
| | | | | 0ppm | QUARTZ SAND: Medium to light brown, fine-grained, moist. | | | | |
| | | | | 0ppm | QUARTZ SAND: White mottled, fine-grained. | | | | |
| 5 | | | | | | | | | |
| 10 | | | | | | | | | |

 ABB ENVIRONMENTAL SERVICES, INC.

# APPENDIX B

# SUMMARY OF DETECTIONS IN SOIL ANALYTICAL RESULTS

## Table B-1
## Summary of Detections in Soil Analytical Results, Study Area 4

BRAC Environmental Site-Screening Report
Naval Training Center
Orlando, Florida

| Identifier:<br>Sampling Date<br>Feet bls | Background [1] Screening | RBC [2] for Residential Soil | RBC [2] for Industrial Soil | SCG [3] | 04B00101<br>26-Oct-94<br>3 | 04B00201<br>26-Oct-94<br>2 | 04B00301<br>26-Oct-94<br>1 |
|---|---|---|---|---|---|---|---|
| **Semivolatile Organic Compounds (µg/kg)** | | | | | | | |
| Di-n-butylphthalate | 560 | 7,800,000 n | 20,000,000 n | 7,300,000 | 760 | 630 | 730 |
| **Pesticides/PCBs (µg/kg)** | | | | | | | |
| Aroclor-1260 | -- | 83 c | 740 c | 900 | -- | 600 | 67 |
| **Inorganic Analytes (mg/kg)** | | | | | | | |
| Aluminum | 2,119 | 78,000 n | 1,000,000 n | 75,000 | 4,130 | 4,720 | 4,210 |
| Arsenic | 1.1 | 0.43 c/23 n | 3.8 c/610 n | 0.8 | -- | 0.47 B | 0.5 B |
| Barium | 3.6 | 5,500 n | 140,000 n | 5,200 | 19.7 J | 19.4 J | 17.1 J |
| Beryllium | -- | 0.15 c | 1.3 c | 0.2 | -- | -- | 0.06 B |
| Calcium | 115 | 1,000,000 | 1,000,000 | ND | 134 B | 264 B | 517 B |
| Chromium | 3.7 | 390 n | 10,000 n | 290 | 4.1 | 5.8 | 5.3 |
| Copper | -- | 3,100 n | 82,000 n | ND | -- | 1.4 B | 2.8 B |
| Iron | 264 | 23,000 n | 610,000 n | ND | 451 | 1,070 | 517 |
| Lead | 3.9 | 400 | 400 | 500 | 3.4 | 4.1 | 3 |
| Magnesium | 32.8 | 460,468 | 460,468 | ND | 91.2 B | 256 B | 112 B |
| Manganese | 2.1 | 1,800 n | 47,000 n | 370 | 1.6 B | 6.4 | 2.7 B |
| Potassium | 185 | 1,000,000 | 1,000,000 | ND | 108 B | 135 B | 134 B |
| Sodium | -- | 1,000,000 | 1,000,000 | ND | -- | 132 B | -- |
| Vanadium | 3.4 | 550 n | 14,000 n | 490 | 2.1 B | 2.6 B | 2.9 B |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | |
| Total Petroleum Hydrocarbons | -- | ND | ND | ND | -- | 170 | -- |

See notes on following page.

## Table B-1 (Continued)
## Summary of Detections in Soil Analytical Results, Study Area 4

BRAC Environmental Site-Screening Report
Naval Training Center
Orlando, Florida

[1] Background values are for subsoils. The background screening value is twice the average of detected concentrations for inorganic analytes. For organic compounds, values are the mean of detected concentration, presented for comparison purposes only.

[2] RBC = Risk-Based Concentration Table, U.S. Environmental Protection Agency Region III, May 1996, R.L. Smith. RBC indicated for Aroclor-1260 is based on carcinogenic effects for polychlorinated biphenyl compounds. 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 (Office of Solid Waste and Emergency Response directive 9355.4-12). For essential nutrients (calcium, magnesium, potassium, and sodium) screening values were derived based on recommended daily allowances.

[3] SCG = Soil Cleanup Goals for Florida (Florida Department of Environmental Protection (FDEP) memorandum, September 29, 1995). Arsenic value is as revised in Applicability of Soil Cleanup Goals for Florida (FDEP memorandum, January 19, 1996). Values indicated are from a residential scenario. Chromium values are for chromium VI. These values apply only to surface soil (sample 04B00301).

Notes:
BRAC = Base Realignment and Closure.
bls = below land surface.
µg/kg = micrograms per kilogram.
n = noncarcinogenic effects.
PCBs = polychlorinated biphenyls.
-- = analyte/compound was not detected at reporting limit.
c = carcinogenic effects.
mg/kg = milligrams per kilogram.
J = reported concentration is an estimated quantity.
B = reported concentration is between the instrument detection limit and the contract-detection limit.
ND = not determined.
▒ = bolded/shaded values indicate exceedance of regulatory guidance and background.

# APPENDIX C

# SUMMARY OF ANALYTICAL RESULTS

## Table C-1
## PCB Immunoassay Soil Results, Study Area 4

BRAC Environmental Site-Screening Report
Naval Training Center
Orlando, Florida

| Boring | Sample Depth (ft bls) | PCB Concentration |
|---|---|---|
| 04B001 | 0-1 | < 0.5 ppm |
| 04B001 | 1-2 | < 0.5 ppm |
| 04B001 | 2-3 | < 0.5 ppm |
| 04B001 | 3-4 | < 0.5 ppm |
| 04B001 | 4-5 | < 0.5 ppm |
| 04B002 | 0-1 | < 0.5 ppm |
| 04B002 | 1-2 | < 0.5 ppm |
| 04B002 | 2-3 | < 0.5 ppm |
| 04B002 | 3-4 | < 0.5 ppm |
| 04B003 | 0-1 | < 0.5 ppm |
| 04B003 | 1-2 | < 0.5 ppm |
| 04B003 | 2-3 | < 0.5 ppm |
| 04B003 | 3-4 | < 0.5 ppm |
| 04B003 | 4-5 | < 0.5 ppm |

Notes: PCB = polychlorinated biphenyl.
BRAC = Base Realignment and Closure.
ft bls = feet below land surface.
< = less than.
ppm = parts per million.

## Table C-2
## Summary of Soil Analytical Results
## Target Compound List Semivolatile Organics
## Study Area 4

BRAC Environmental Site-Screening Report
Naval Training Center
Orlando, Florida

| Identifier | 04B00101 | | 04B00201 | | 04B00301 | |
|---|---|---|---|---|---|---|
| Sampling Date | 10/26/94 | | 10/26/94 | | 10/26/94 | |
| 1,2,4-Trichlorobenzene | 370 | U | 400 | U | 420 | U |
| 1,2-Dichlorobenzene | 370 | U | 400 | U | 420 | U |
| 1,3-Dichlorobenzene | 370 | U | 400 | U | 420 | U |
| 1,4-Dichlorobenzene | 370 | U | 400 | U | 420 | U |
| 2,2'-oxybis(1-Chloropropane) | 370 | U | 400 | U | 420 | U |
| 2,4,5-Trichlorophenol | 920 | U | 1000 | U | 1000 | U |
| 2,4,6-Trichlorophenol | 370 | U | 400 | U | 420 | U |
| 2,4-Dichlorophenol | 370 | U | 400 | U | 420 | U |
| 2,4-Dimethylphenol | 370 | U | 400 | U | 420 | U |
| 2,4-Dinitrophenol | 920 | U | 1000 | U | 1000 | U |
| 2,4-Dinitrotoluene | 370 | U | 400 | U | 420 | U |
| 2,6-Dinitrotoluene | 370 | U | 400 | U | 420 | U |
| 2-Chloronaphthalene | 370 | U | 400 | U | 420 | U |
| 2-Chlorophenol | 370 | U | 400 | U | 420 | U |
| 2-Methylnaphthalene | 370 | U | 400 | U | 420 | U |
| 2-Methylphenol | 370 | U | 400 | U | 420 | U |
| 2-Nitroaniline | 920 | U | 1000 | U | 1000 | U |
| 2-Nitrophenol | 370 | U | 400 | U | 420 | U |
| 3,3'-Dichlorobenzidine | 370 | U | 400 | U | 420 | U |
| 3-Nitroaniline | 920 | U | 1000 | U | 1000 | U |
| 4,6-Dinitro-2-methylphenol | 920 | U | 1000 | U | 1000 | U |
| 4-Bromophenyl-phenylether | 370 | U | 400 | U | 420 | U |
| 4-Chloro-3-methylphenol | 370 | U | 400 | U | 420 | U |
| 4-Chloroaniline | 370 | U | 400 | U | 420 | U |
| 4-Chlorophenyl-phenylether | 370 | U | 400 | U | 420 | U |
| 4-Methylphenol | 370 | U | 400 | U | 420 | U |
| 4-Nitroaniline | 920 | U | 1000 | U | 1000 | U |
| 4-Nitrophenol | 920 | U | 1000 | U | 1000 | U |
| Acenaphthene | 370 | U | 400 | U | 420 | U |
| Acenaphthylene | 370 | U | 400 | U | 420 | U |
| Anthracene | 370 | U | 400 | U | 420 | U |
| Benzo(a)anthracene | 370 | U | 400 | U | 420 | U |
| Benzo(a)pyrene | 370 | U | 400 | U | 420 | U |

See notes at end of table.

## Table C-2 (Continued)
## Summary of Soil Analytical Results
## Target Compound List Semivolatile Organics
## Study Area 4

BRAC Environmental Site-Screening Report
Naval Training Center
Orlando, Florida

| Identifier | 04B00101 | | 04B00201 | | 04B00301 | |
|---|---|---|---|---|---|---|
| Sampling Date | 10/26/94 | | 10/26/94 | | 10/26/94 | |
| Benzo(b)fluoranthene | 370 | U | 400 | U | 420 | U |
| Benzo(g,h,i)perylene | 370 | U | 400 | U | 420 | U |
| Benzo(k)fluoranthene | 370 | U | 400 | U | 420 | U |
| bis(2-Chloroethoxy)methane | 370 | U | 400 | U | 420 | U |
| bis(2-Chloroethyl)ether | 370 | U | 400 | U | 420 | U |
| bis(2-Ethylhexyl)phthalate | 370 | U | 400 | U | 420 | U |
| Butylbenzylphthalate | 370 | U | 400 | U | 420 | U |
| Carbazole | 370 | U | 400 | U | 420 | U |
| Chrysene | 370 | U | 400 | U | 420 | U |
| Di-n-butylphthalate | 760 | | 630 | | 730 | |
| Di-n-octylphthalate | 370 | U | 400 | U | 420 | U |
| Dibenz(a,h)anthracene | 370 | U | 400 | U | 420 | U |
| Dibenzofuran | 370 | U | 400 | U | 420 | U |
| Diethylphthalate | 370 | U | 400 | U | 420 | U |
| Dimethylphthalate | 370 | U | 400 | U | 420 | U |
| Fluoranthene | 370 | U | 400 | U | 420 | U |
| Fluorene | 370 | U | 400 | U | 420 | U |
| Hexachlorobenzene | 370 | U | 400 | U | 420 | U |
| Hexachlorobutadiene | 370 | U | 400 | U | 420 | U |
| Hexachlorocyclopentadiene | 370 | U | 400 | U | 420 | U |
| Hexachloroethane | 370 | U | 400 | U | 420 | U |
| Indeno(1,2,3-cd)pyrene | 370 | U | 400 | U | 420 | U |
| Isophorone | 370 | U | 400 | U | 420 | U |
| N-Nitroso-di-n-propylamine | 370 | U | 400 | U | 420 | U |
| N-Nitrosodiphenylamine [1] | 370 | U | 400 | U | 420 | U |
| Naphthalene | 370 | U | 400 | U | 420 | U |
| Nitrobenzene | 370 | U | 400 | U | 420 | U |
| Pentachlorophenol | 920 | U | 1000 | U | 1000 | U |
| Phenanthrene | 370 | U | 400 | U | 420 | U |
| Phenol | 370 | U | 400 | U | 420 | U |
| Pyrene | 370 | U | 400 | U | 420 | U |

Notes: Analytical results expressed in micrograms per kilogram (μg/kg) soil dry weight.

U = Compound not detected at the contract-required quantitation limit (CRQL).

## Table C-3
## Summary of Soil Analytical Results
## Target Analyte List PCBs / Total Petroleum Hydrocarbons
## Study Area 4

BRAC Environmental Site-Screening Report
Naval Training Center
Orlando, Florida

| Identifier | 04B00101 | 04B00201 | 04B00301 |
|---|---|---|---|
| Sampling Date | 10/26/94 | 10/26/94 | 10/26/94 |
| Total Petroleum Hydrocarbons, mg/kg | 4.4 U | 170 | 4 U |
| **PCBs, µg/kg** | | | |
| Aroclor-1016 | 37 UJ | 200 U | 40 U |
| Aroclor-1221 | 74 UJ | 400 U | 81 U |
| Aroclor-1232 | 37 UJ | 200 U | 40 U |
| Aroclor-1242 | 37 UJ | 200 U | 40 U |
| Aroclor-1248 | 37 UJ | 200 U | 40 U |
| Aroclor-1254 | 37 UJ | 200 U | 40 U |
| Aroclor-1260 | 37 UJ | 600 | 67 |

Notes: PCB analytical results expressed in micrograms per kilogram (µg/kg) soil dry weight, total petroleum hydrocarbons in mg/kg soil dry weight.

U = Compound not detected at the contract-required quantitation limit (CRQL).
J = Reported concentration is an estimated quantity.

## Table C-4
## Summary of Soil Analytical Results
## Target Analyte List Metals
## Study Area 4

BRAC Environmental Site-Screening Report
Naval Training Center
Orlando, Florida

| Identifier | 04B00101 | | 04B00201 | | 04B00301 | |
|---|---|---|---|---|---|---|
| Sampling Date | 10/26/94 | | 10/26/94 | | 10/26/94 | |
| Aluminum | 4130 | | 4720 | | 4210 | |
| Antimony | 4.3 | U | 4.6 | U | 5 | U |
| Arsenic | 0.42 | U | 0.47 | B | 0.5 | B |
| Barium | 19.7 | J | 19.4 | J | 17.1 | J |
| Beryllium | 0.05 | U | 0.05 | U | 0.06 | B |
| Cadmium | 0.65 | U | 0.7 | U | 0.75 | U |
| Calcium | 134 | B | 264 | B | 517 | B |
| Chromium | 4.1 | | 5.8 | | 5.3 | |
| Cobalt | 0.67 | U | 0.71 | U | 0.77 | U |
| Copper | 0.38 | U | 1.4 | B | 2.8 | B |
| Iron | 451 | | 1070 | | 517 | |
| Lead | 3.4 | | 4.1 | | 3 | |
| Magnesium | 91.2 | B | 256 | B | 112 | B |
| Manganese | 1.6 | B | 6.4 | | 2.7 | B |
| Mercury | 0.01 | U | 0.01 | U | 0.02 | U |
| Nickel | 2.1 | U | 2.2 | U | 2.4 | U |
| Potassium | 108 | B | 135 | B | 134 | B |
| Selenium | 0.44 | U | 0.47 | U | 0.5 | U |
| Silver | 0.58 | U | 0.62 | U | 0.66 | U |
| Sodium | 10.6 | U | 132 | B | 7.9 | U |
| Thallium | 0.29 | U | 0.31 | U | 0.33 | U |
| Vanadium | 2.1 | B | 2.6 | B | 2.9 | B |
| Zinc | 9.9 | | 0.32 | U | 0.34 | U |

Notes: Analytical results expressed in milligrams per kilogram (mg/kg) soil dry weight.

U = Analyte not detected at the reporting limit.
B = Reported concentration is between the instrument detection limit (IDL) and the contract-required detection limit (CRDL).
J = Reported concentration is an estimated quantity.