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FINAL BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORTS STUDY AREA 32 NTC ORLANDO FL

3/1/1998

ABB ENVIRONMENTAL

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BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT

STUDY AREA 32

NAVAL TRAINING CENTER ORLANDO, FLORIDA

UNIT IDENTIFICATION CODE: N65928
CONTRACT NO.: N62467-89-D-0317/107

MARCH 1998

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORTH CHARLESTON, SOUTH CAROLINA
29419-9010

PRINTED ON RECYCLED PAPER

BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT

STUDY AREA 32

NAVAL TRAINING CENTER ORLANDO, FLORIDA

Unit Identification Code: N65928

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

Prepared by:

ABB Environmental Services, Inc.
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Prepared for:

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Naval Facilities Engineering Command
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North Charleston, South Carolina 29418

Barbara Nwokike, Code 1873, Engineer-in-Charge

March 1998

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: March 23, 1998

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

NAME AND TITLE OF CERTIFYING OFFICIAL: Richard Allen
Project Technical Lead

(DFAR 252.227-7036)

NTC-ESSR.S32
SAS.03.98

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Orlando, Florida

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GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
bls	below land surface
CLP	Contract Laboratory Program
DQO	data quality objective
$\mu g/\ell$	micrograms per liter
PCB	polychlorinated biphenyl
RBC	risk-based concentration
SCG	soil cleanup goal
TAL	target analyte list
TCL	target compound list
TPH	total petroleum hydrocarbons
USEPA	U.S. Environmental Protection Agency

1.0 STUDY AREA 32, BUILDINGS 358 AND 359

This report contains information gathered during site screening activities conducted at Study Area 32. Site screening investigations were completed between August 11, 1997, and November 19, 1997. Proposed field activities were presented in the Site Screening Plan (ABB Environmental Services, Inc. [ABB-ES], 1995).

1.1 STUDY AREA 32, BACKGROUND AND CONDITIONS. Study Area 32 is located on the Main Base, Naval Training Center, Orlando (Figure 1). This section includes a brief background summary of conditions at Study Area 32. Additional details can be found in the Site Screening Plan (ABB-ES, 1995).

Study Area 32 is located on the southeastern part of the Main Base, on the west and east sides of Rickover Circle. Buildings 358 and 359, which are student barracks, are located on the western part of the study area. Part of the site to the east of the buildings was reportedly used as a motor pool by the Army Air Corps early in the development of the base. The objective of the site screening investigation was to evaluate potential environmental impact of the motor pool operations, which reportedly included storage, use, and disposal of paints, solvents, and petroleum products.

1.2 STUDY AREA 32, INVESTIGATION SUMMARY. The site screening investigation was intended to evaluate the potential for release of contaminants to environmental media due to past site practices. Historical site activities and current site conditions were used to determine sampling locations.

1.2.1 Passive Soil Gas Survey Since no surface evidence of the former motor pool remains at the site, and potential historical releases were not well documented, a passive soil gas survey was conducted to rapidly evaluate the former motor pool area. A 50-foot by 50-foot grid was established over the study area (Figure 2). A passive soil gas sample collector was installed approximately 2 feet below land surface (bls) at each grid node. Nodes that would have been under buildings or on pavement were offset where necessary. Upon retrieval, the sample collectors were submitted to a laboratory for volatiles analysis.

1.2.2 Surface Soil Sampling Following the passive soil gas survey, soil and groundwater sampling locations were selected on the upgradient (western) and downgradient (northern and eastern) sides of the study area. Surface soil samples for each location were submitted to an approved laboratory for full suite Contract Laboratory Program (CLP) target analyte list (TAL) and target compound list (TCL) laboratory analysis. Also analyzed were pesticides and polychlorinated biphenyls (PCBs), along with total petroleum hydrocarbons (TPH), all in accordance with U.S. Environmental Protection Agency (USEPA) Level IV data quality objectives (DQOs).

1.2.3 Soil Boring Investigation Three soil borings were advanced at the selected locations. Subsurface soil samples were collected from the interval directly above the water table, which varied from approximately 8 to 9 feet bls. The subsurface soil samples were submitted for full suite CLP TAL and TCL laboratory analysis plus pesticides and PCBs, along with TPH, in accordance with USEPA Level IV DQOs.

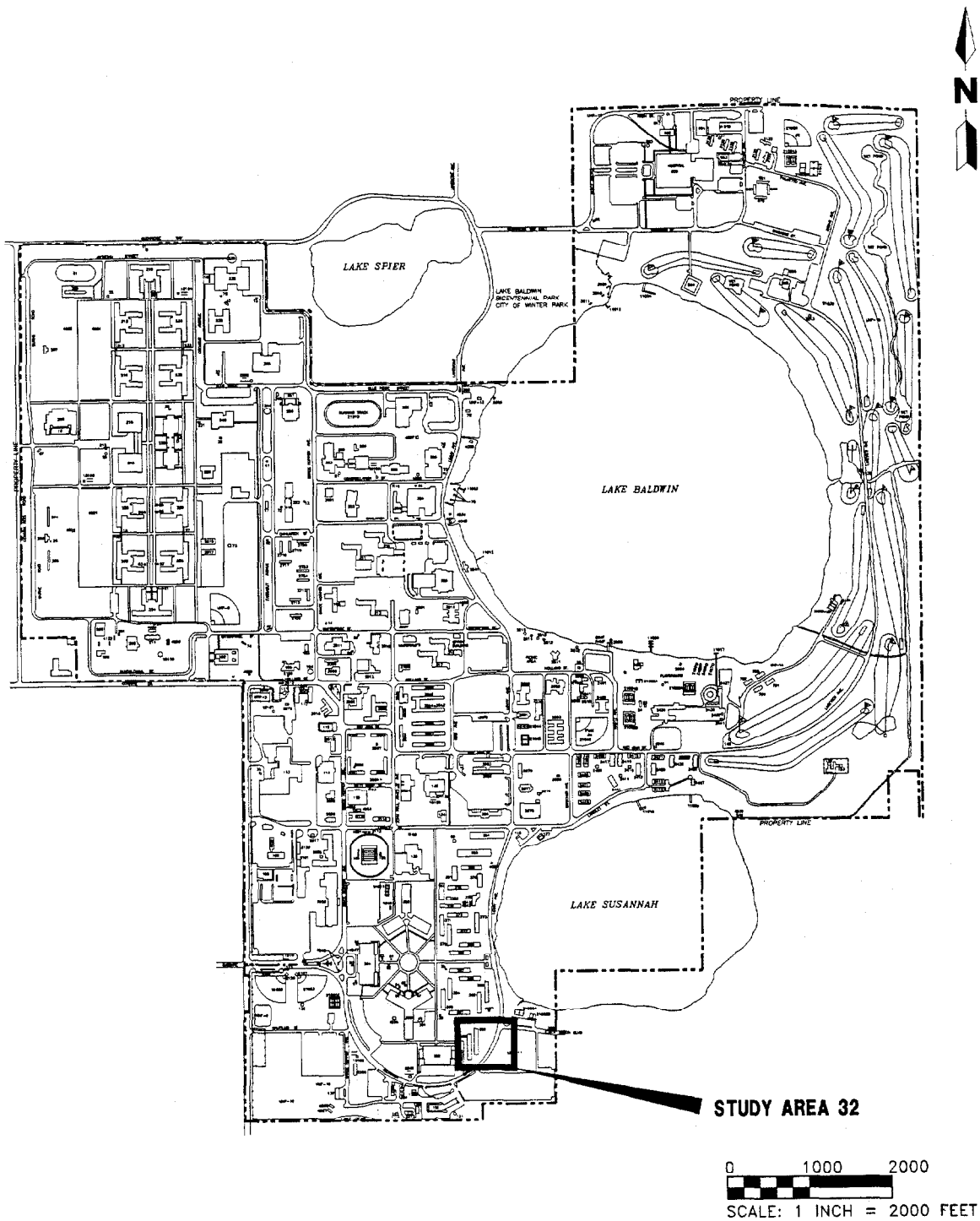

FIGURE 1
LOCATION OF STUDY AREA 32

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BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT, STUDY AREA 32

NAVAL TRAINING CENTER ORLANDO, FLORIDA

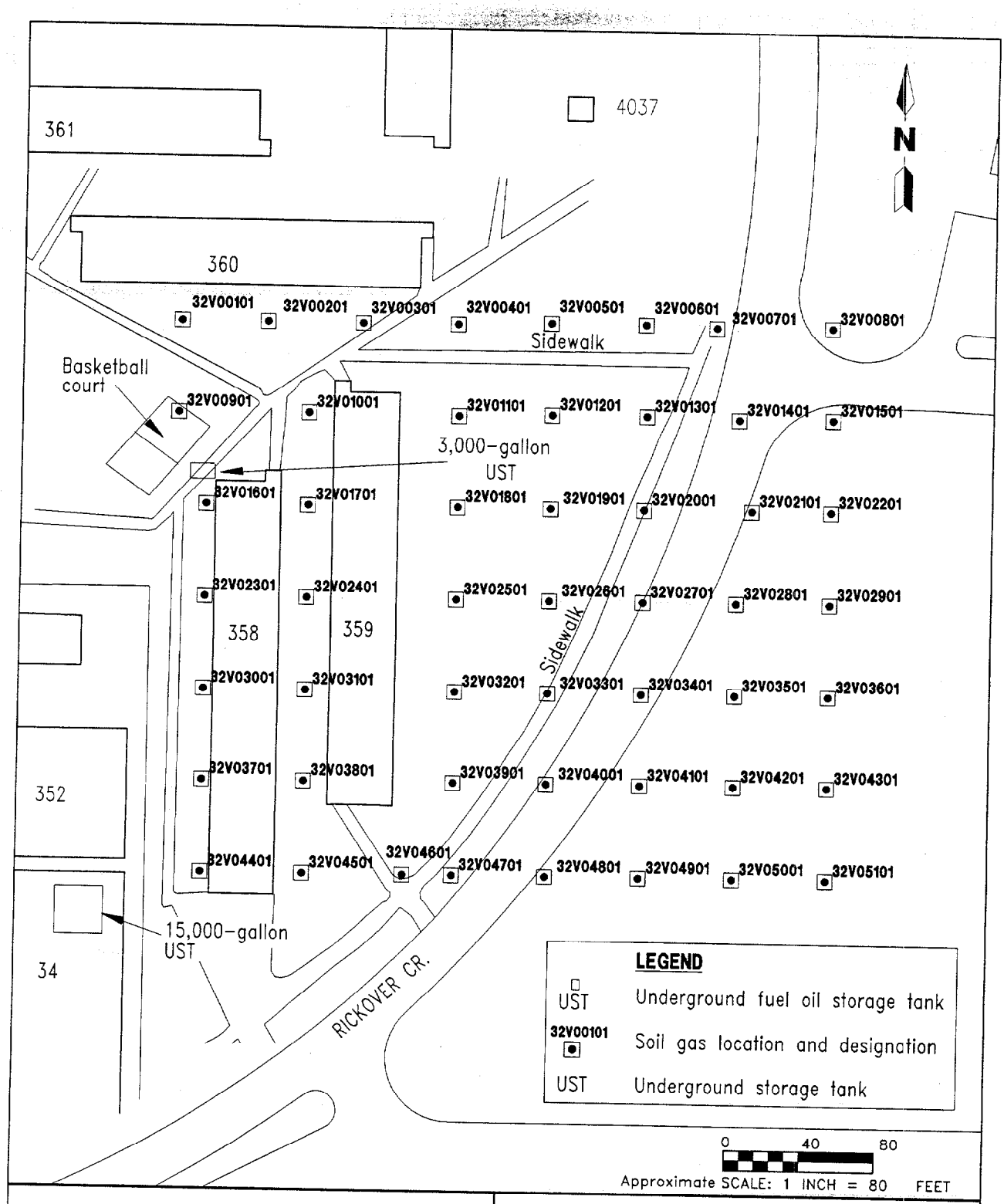

FIGURE 2
SOIL GAS LOCATIONS
BUILDINGS 358 AND 359, BACHELOR'S QUARTERS
MAIN BASE, STUDY AREA 32

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BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT, STUDY AREA 32

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1.2.4 Groundwater Monitoring Well Installation and Sampling Three monitoring wells (OLD-32-01, OLD-32-02, and OLD-32-03) were installed during the field investigation (Figure 3). The soil borings for the well installations were advanced to approximately 16 feet bls. The screened interval for each monitoring well bracketed the water table, which was encountered at 8 to 9 feet bls during the investigation. Groundwater samples were collected from each well using the low flow sampling method (ABB-ES, 1997). Groundwater samples were submitted to an approved laboratory for full suite CLP TAL and TCL laboratory analysis plus pesticides and PCBs, along with TPH and suspended solids analysis, in accordance with USEPA Level IV DQOs. Filtered samples (0.45 micron in-line filter) were also collected and submitted for TAL inorganics analysis. The monitoring well installation diagrams and groundwater sample field data are included in Appendix A.

1.3 STUDY AREA RESULTS. The analytical results of the passive soil gas survey are presented in Appendix B. Analytical results from the media sampled at Study Area 32 are presented as Positive Detections Tables in Appendix C. A complete set of analytical results is presented in Appendix D. Exceedances of background or regulatory guidance concentrations (shaded on the positive hits tables) are displayed in chem-boxes near their respective explorations on Figure 3.

1.3.1 Passive Soil Gas Survey Results No volatile organic compounds were detected in the passive soil gas samples collected during this field investigation. The laboratory analytical results are presented in Appendix B.

1.3.2 Surface Soil Analytical Results Analysis of the surface soil collected at Study Area 32 detected semivolatile organics, pesticides, and inorganics (Table C-1, Appendix C). None of the compounds detected were at concentrations exceeding their respective Florida residential soil cleanup goal (SCG) or the USEPA Region III risk-based concentration (RBC) for residential soil. The only compound detected in groundwater above screening values was aluminum, which does not have a defined leachability-based SCG. Since none of the other analytes detected in the surface soil were detected in groundwater above screening values, additional comparison to leachability-based SCGs is not required.

1.3.3 Subsurface Soil Analytical Results Analysis of the subsurface soil collected at Study Area 32 detected petroleum hydrocarbons, pesticides, and inorganics (Table C-2, Appendix C). None of the compounds detected were at concentrations exceeding their respective SCGs and RBCs for residential soil. The only compound detected in groundwater above screening values was aluminum, which does not have a defined leachability-based SCG. Since none of the other analytes detected in the subsurface soil were detected in groundwater above screening values, additional comparison to leachability-based SCGs is not required.

1.3.4 Groundwater Analytical Results Analysis of the groundwater collected at Study Area 32 detected pesticides and inorganics (Table C-3, Appendix C). Aluminum was detected in the groundwater sample from OLD-32-02 (32G00201) at a concentration of 4,660 micrograms per liter ($\mu g/\ell$), which slightly exceeds the background screening value of 4,067 $\mu g/\ell$. This concentration is well below the RBC for aluminum in groundwater of 37,000 $\mu g/\ell$. The Florida groundwater guidance value for aluminum (200 $\mu g/\ell$) is a secondary standard. Secondary standards have been established for Class G-I and G-II aquifers by the State of Florida, largely

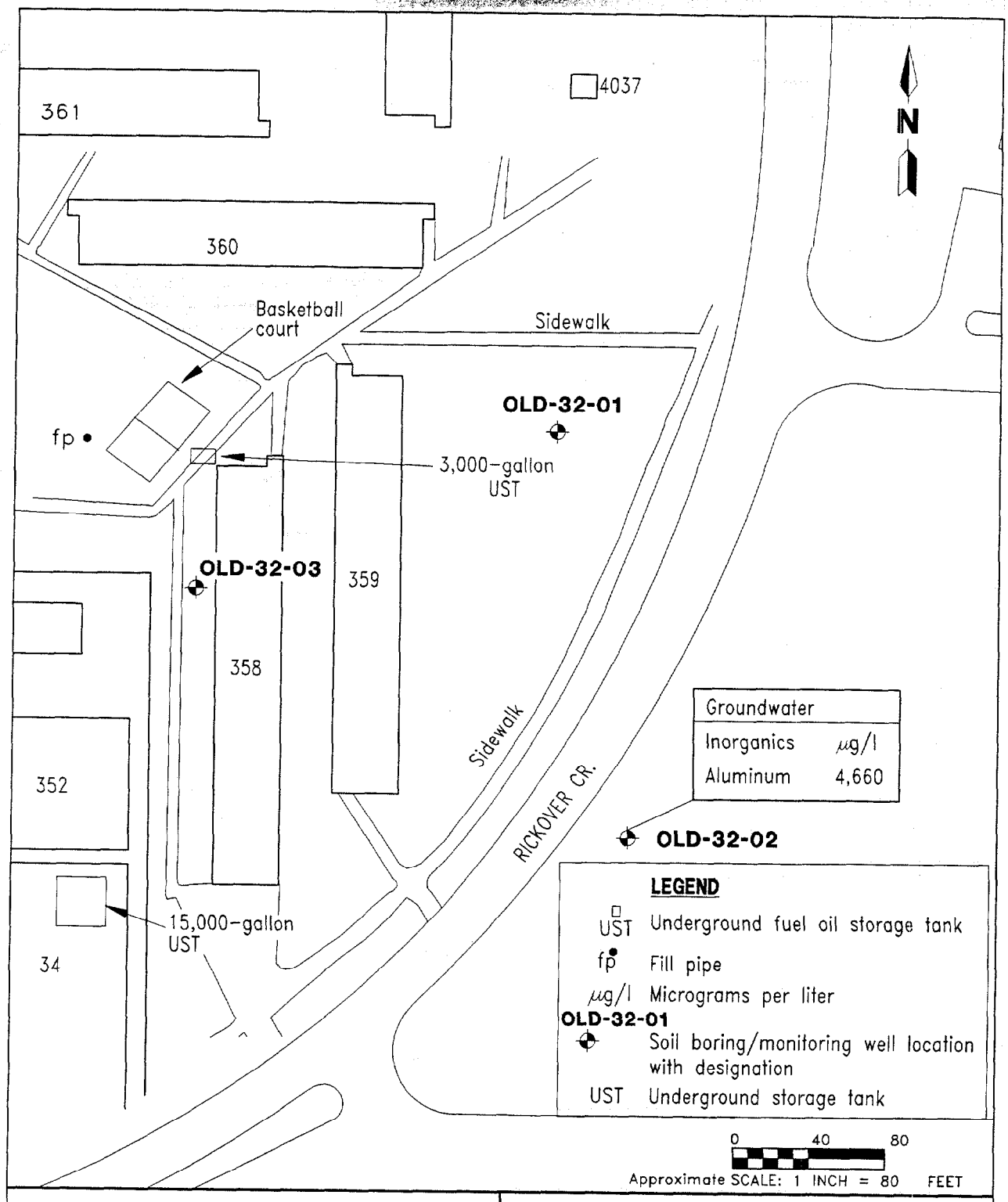

FIGURE 3
MONITORING WELL LOCATIONS
BUILDINGS 358 AND 359, BACHELOR'S QUARTERS
MAIN BASE, STUDY AREA 32

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BASE REALIGNMENT AND CLOSURE ENVIRONMENTAL SITE SCREENING REPORT, STUDY AREA 32

NAVAL TRAINING CENTER ORLANDO, FLORIDA

along Federal guidelines, to assure that groundwater meets at least minimum criteria for taste, odor, and color. Secondary standards were not established for human health, cancer risk, or ecological risk considerations, but, nonetheless, they are enforceable in the State of Florida.

A description of past site activities was included in Section 1.1. Based on records reviews and interviews, there have been no known site activities that may have contributed to the observed exceedance of the secondary standards for aluminum. Surface and subsurface soil concentrations of aluminum did not exceed background screening concentrations. The sample was very turbid (153.7 nephelometric turbidity units) and had 96 milligrams per liter suspended solids, suggesting that suspended solids contributed to the observed secondary standard exceedance for aluminum. There were no other TAL metals exceedances, and groundwater parameters measured during sampling (pH, temperature, conductivity, and turbidity) were within normal limits. ABB-ES concludes that the aluminum concentrations are naturally occurring, are not related to past site activities, and do not pose a risk to human health or the environment.

The aluminum concentration in the filtered sample from OLD-32-02 (32H00201) was 745 $\mu g/\ell$. The other analytes detected in the groundwater samples were below screening values.

1.4 STUDY AREA 32, CONCLUSIONS AND RECOMMENDATIONS. The analytical results from media sampled at Study Area 32 do not indicate that the site has been affected by past site use.

Aluminum was detected in one groundwater sample, 32G00201, at a concentration of 4,660 $\mu g/\ell$, which is slightly above the background screening concentration of 4,067 $\mu g/\ell$. The turbidity and total suspended solids of the groundwater at the time of sampling were elevated, indicating that suspended sediment is likely responsible for aluminum concentrations in the sample. In addition, the filtered sample, 32H00201, had a much lower concentration (745 $\mu g/\ell$ versus 4,660 $\mu g/\ell$), further evidence that the aluminum exceedance was due to sample turbidity. Surface and subsurface soil did not have any detections of compounds above screening criteria.

ABB-ES recommends that Study Area 32 be made eligible for transfer, and that the site be reclassified from 7/Grey to 1/White.

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

STUDY AREA 32

U.S. Environmental Protection Agency, Region IV	3/19/98 Date
Florida Department of Environmental Protection	3/19/98 Date
U.S. Department of the Navy	3-19-98 Date

REFERENCES

ABB Environmental Services, Inc. (ABB-ES). 1995. *Site Screening Plan, Groups I through IV Study Areas and Miscellaneous Additional Sites, Naval Training Center (NTC), Orlando, Florida.* Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), North Charleston, South Carolina.

ABB-ES. 1997. *Project Operations Plan for Site Investigations and Remedial Investigations, NTC, Orlando, Florida.* Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

APPENDIX A

MONITORING WELL INSTALLATION DIAGRAMS AND GROUNDWATER SAMPLE FIELD DATA

A-1 Monitoring Well Installation Diagrams
A-2 Groundwater Sample Field Data

APPENDIX A-1

MONITORING WELL INSTALLATION DIAGRAMS

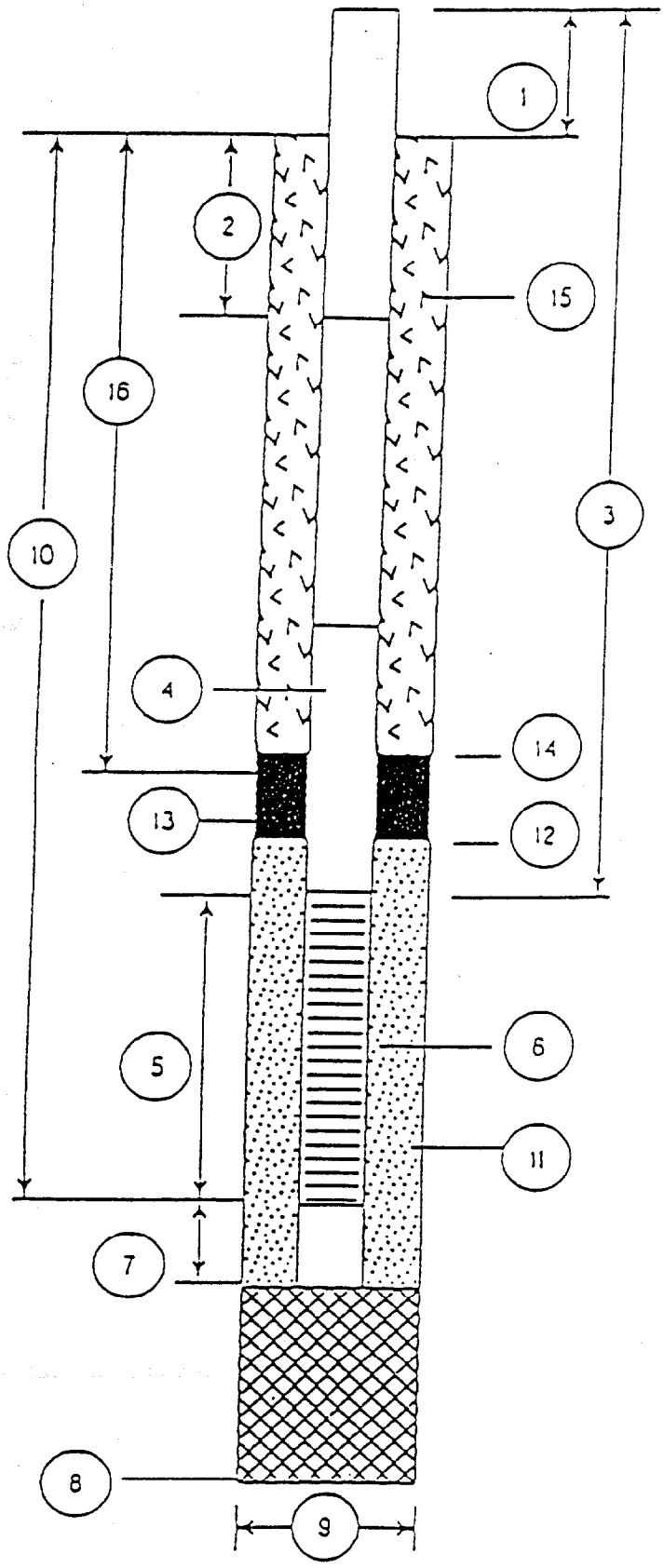
DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

WELL NUMBER: OLD-32-01

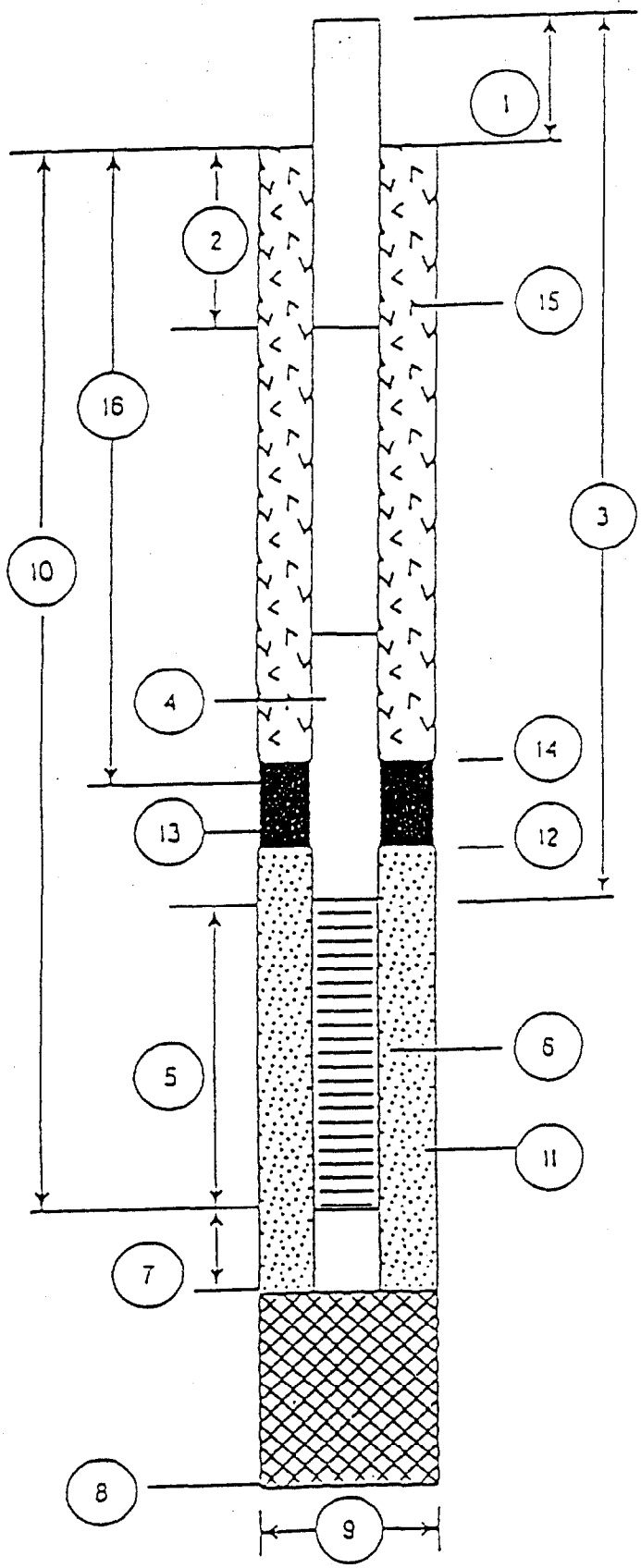
DATE OF INSTALLATION: 10-9/



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 Sl
7. Length of Sump: 6"
8. Total Depth of Boring: 16'
9. Diameter of Boring: 10"
10. Depth to Bottom of Screen: 16'
11. Type of Screen Filler: Silica Sand
    Quantity Used: 500 lb Size: 20/30
12. Depth to Top of Filler: 4'
13. Type of Seal: Fine Sand 30/65
    Quantity Used: 50 lb
14. Depth to Top of Seal: 2'
15. Type of Grout: Concrete / Portland
    Grout Mixture:
    Method of Placement: Pour
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-32-02

DATE OF INSTALLATION: 10-

1. Height of Casing above ground: FM
2. Depth to first Coupling: 6'
   Coupling Interval Depths: NA
3. Total Length of Riser Pipe: 8'
4. Type of Riser Pipe: 2" Sched 40 PVC
5. Length of Screen: 10'
6. Type of Screen: 2" Sched 40 PVC 0.010 SL
7. Length of Sump: 6"
8. Total Depth of Boring: 16'
9. Diameter of Boring: 10"
10. Depth to Bottom of Screen: 16'
11. Type of Screen Filter: Silica Sand
    Quantity Used: 550 lb Size: 20-
12. Depth to Top of Filter: 4'
13. Type of Seal: 30/65 sand
    Quantity Used: 50 lb
14. Depth to Top of Seal: 2'
15. Type of Grout: concrete/cement
    Grout Mixture:
    Method of Placement: POUR
16. Tot. Depth of 6 in. Steel Casing: NA

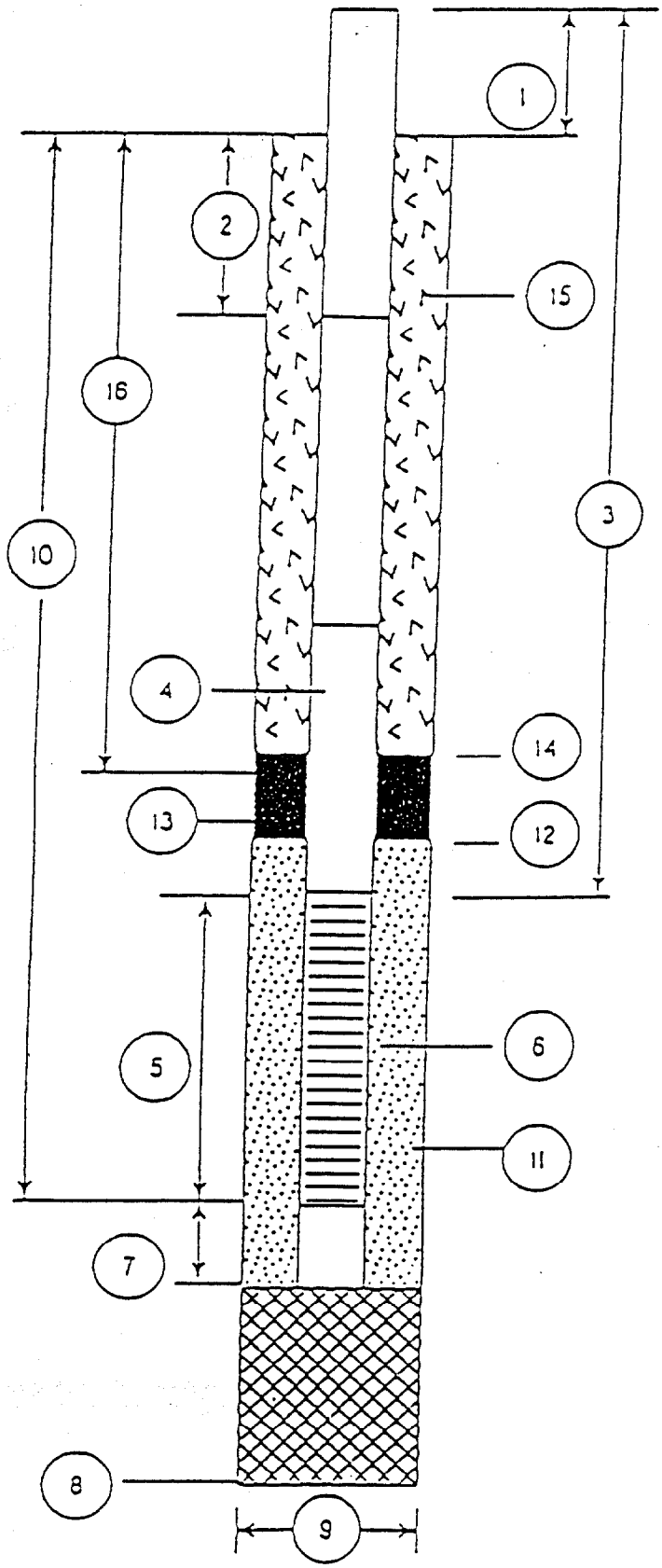
DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC.

WELL CONSTRUCTION DETAIL

WELL NUMBER: OLD-32-03

DATE OF INSTALLATION: 10-9-97



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: 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"
10. Depth to Bottom of Screen: 15'
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: 30 lb
14. Depth to Top of Seal: 2'
15. Type of Grout: Cement/Cement
    Grout Mixture:
    Method of Placement: Pour
16. Tot. Depth of 6 in. Steel Casing: NA

APPENDIX A-2

GROUNDWATER SAMPLE FIELD DATA

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Project Number: 02530.05
Sample Location ID: OLD-32-01
Time: Start: 0746 End: 1020

Point of Interest: SA 32
Date: 11-19/97
Signature of Sampler: [illegible]

Water Level/Well Data

Well Depth 15.66 Ft. — X Measured / ___ Historical

X Top of Well / ___ Top of Protective Casing

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

Protective Casing/Well Difference NA Ft.

Protective Casing NA Ft.

Depth to Water 8.25 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 7.41 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; 5 Total Gal Purged

Well Integrity: Prot. Casing Secure — Yes X, No ___; Concrete Collar Intact — Yes X, No ___; Other — Yes ___, No ___

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: ___ In-line / X In Container

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

Purge Data	@ ___ Gal.	@ 1 Gal.	@ 3 Gal.	@ 4 Gal.	@ 5 Gal.
Temperature, Deg. C		22.7	23.3	23.3	23.5
pH, units		5.86	6.18	6.23	6.23
Specific Conductivity (umhos/cm. @ 25 Deg. C.)		168	162	160	160
~~Oxidation - Reduction, mv~~					
~~Dissolved Oxygen, ppm~~ MU		13.12	11.01	14.00	14.48

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:

~~30~~ 32G00101 Full Suite/TPH/TSS
32G00101 MS Full Suite
32G00101 MSD Full Suite
32G00101/MS/MSD TAL metals (Filtered)

Filtered Turb = 2.38 NTU
Final turbidity = 17.30 NTU

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Point of Interest: SA32
Project Number: 02530.05
Date: 11-19/97
Sample Location ID: OLD-32-02
Time: Start: 1030 End: 1200
Signature of Sampler: [illegible]

Water Level/Well Data

Well Depth 15.83 Ft. — X Measured / ___ Historical — X Top of Well / ___ Top of Protective Casing

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

Protective Casing/Well Difference NA Ft.

Protective Casing NA Ft.

Depth to Water 7.62 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 8.21 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 / 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: ___ In-line / X In Container

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

Purge Data	@ ___ Gal.	@ 1 Gal.	@ 3 Gal.	@ 4 Gal.	@ 5 Gal.
Temperature, Deg. C		23.5	23.7	23.3	23.5
pH, units		5.51	5.54	5.55	5.62
Specific Conductivity (umhos/cm @ 25 Deg. C)		112	112	116	116
~~Oxidation - Reduction, +/- mv~~					
~~Dissolved Oxygen, ppm~~ NTU		320.0	320.0	166.4	153.7

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:

32G0020I = Full suite / TPH / TSS
32M0020I = TAL metals (Filtered)
Filtered Turb = 17.77 NTU
Final Turb = 174.8 NTU

GROUNDWATER SAMPLE FIELD DATA

Project: NTC ORLANDO
Point of Interest: SA 32
Project Number: 02530.05
Date: 11-19/97
Sample Location ID: OLD-32-03
Time: Start: 1235 End: 1405
Signature of Sampler: William D. Olson

Water Level/Well Data

Well Depth 14.97 Ft. — X Measured / ___ Historical

X Top of Well / ___ Top of Protective Casing

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

Protective Casing/Well Difference NA Ft.

Protective Casing NA Ft.

Depth to Water 7.87 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 7.10 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; 3.5 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 ___ In-line / X In Container

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

Purge Data	@ ___ Gal.	@ .22 Gal.	@ 1 Gal.	@ 2 Gal.	@ 3.5 Gal.
Temperature, Deg. C		25.0	25.4	25.4	25.3
pH, units		4.96	4.97	4.94	4.93
Specific Conductivity (umhos/cm. @ 25 Deg. C.)		135	115	115	115
~~Oxidation - Reduction, +/- mv~~					
~~Dissolved Oxygen, ppm~~ NTU		20.7	11.3	9.76	9.57

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:

32G-00301 = Full Suite/TPH/TSS
32H 00301 = TAL metals (filtered)
Filtered Turb = 3.55 NTU
Final Turb = 8.90 NTU

APPENDIX B

PASSIVE SOIL GAS SURVEY ANALYTICAL RESULTS

Samples Collected:	8/21/97 - 8/28/97	Collected by:	ABB-ES	Client:	ABB-ES
Samples Received:	8/25/97 - 9/3/97	Received by:	Guy Auld	Client Address:	1080 Woodcock Road, Suite 100
Samples Analyzed:	8/26/97 - 9/8/97	Analyzed by:	Guy Auld		Orlando, FL 32803
Samples Reported:	9/8/97	Reported by:	Guy Auld		
Project Identification:	NTC, ORLANDO	Report Revision:	0.0	Client Contact:	John Kaiser
Target Job Code:	ABT002	Method Deviations:	none	Client Phone:	407-895-8845
Purchase Order:		Sampling Method:	Passive soil gas	Client Fax:	407-896-6150

USEPA Method 8260 Passive Soil Gas Sample Analysis Results (in ug/L)

Compound	MW[1] (g/mole)	MDL[2] (ug/L)	PQL[3] (ug/L)	32V-00601 (ug/L)	32V-01301 (ug/L)	32V-00801 (ug/L)	32V-00701 (ug/L)	32V-00501 (ug/L)	32V-00401 (ug/L)	32V-00301 (ug/L)	32V-00301D (ug/L)	32V-00201 (ug/L)	32V-00101 (ug/L)
Dichlorodifluoromethane	120.91	0.688	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	50.49	0.559	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	62.50	1.011	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	94.94	0.444	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	64.51	0.341	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	138.38	0.334	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	96.94	0.298	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	84.93	0.448	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	96.94	0.419	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	98.96	0.488	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	96.94	0.455	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	119.38	0.472	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	133.40	0.465	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	153.82	0.421	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	78.11	0.496	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	98.96	0.639	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	131.39	0.135	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	112.99	0.121	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	163.83	0.161	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	173.83	0.525	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	110.97	0.306	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	92.14	0.156	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	110.97	0.412	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	133.40	0.551	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene or PCE	165.83	0.231	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	208.28	0.264	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	187.86	0.562	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	112.56	0.171	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	167.85	0.117	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	106.17	0.308	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	106.17	0.473	5.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	106.17	0.227	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	104.15	0.181	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	120.19	0.339	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	252.73	0.338	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	167.85	0.649	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	147.43	0.451	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	157.01	0.127	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	134.22	0.296	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	134.22	0.301	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	147.00	0.084	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	147.00	0.047	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	147.00	0.164	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	134.22	0.276	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	181.45	0.406	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	260.76	0.461	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	128.17	0.715	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	181.45	0.573	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sample Condition (S,U)/Dilution (PQL)			1	S	S	S	S	S	S	S	S	S	S

S: Satisfactory, U: Unsatisfactory
U: see sample narrative
Dilution: numerical dilution factor used to quantitate analyte concentrations within the range of the initial calibration curve

[1] MW: Molecular Weight

[2] MDL: Method detection limit according to EPA 40CFR Part 136 Appendix B

[3] PQL: Practical quantitation limit using the initial calibration curve low point and dilution factors where applicable

SAMPLE NARRATIVE:

Quality Control Analyst: _____

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Samples Collected:	8/21/97 - 8/28/97	Collected by:	ABB-ES	Client:	ABB-ES
Samples Received:	8/25/97 - 9/3/97	Received by:	Guy Auld	Client Address:	1080 Woodcock Road, Suite 100
Samples Analyzed:	8/26/97 - 9/8/97	Analyzed by:	Guy Auld		Orlando, FL 32803
Samples Reported:	9/8/97	Reported by:	Guy Auld		
Project Identification:	NTC, ORLANDO	Report Revision:	0.0	Client Contact:	John Kaiser
Target Job Code:	ABT002	Method Deviations:	none	Client Phone:	407-895-8845
chase Order:		Sampling Method:	Passive soil gas	Client Fax:	407-896-6150

USEPA Method 8260 Passive Soil Gas Sample Analysis Results (in ug/L)

Compound	MW[1] (g/mole)	MDL[2] (ug/L)	PQL[3] (ug/L)	32V-00901 (ug/L)	32V-01001 (ug/L)	32V-01101 (ug/L)	32V-01201 (ug/L)	32V-01401 (ug/L)	32V-01501 (ug/L)	32V-02201 (ug/L)	32V-02201D (ug/L)	32V-02101 (ug/L)	32V-02001 (ug/L)
Dichlorodifluoromethane	120.91	0.688	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	50.49	0.559	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	62.50	1.011	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	94.94	0.444	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	64.51	0.341	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	138.38	0.334	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	96.94	0.298	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	84.93	0.448	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	96.94	0.419	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	98.96	0.488	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	96.94	0.455	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	119.38	0.472	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	133.40	0.465	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	153.82	0.421	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	78.11	0.496	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	98.96	0.639	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	131.39	0.135	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	112.99	0.121	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	163.83	0.161	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	173.83	0.525	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	110.97	0.306	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	92.14	0.156	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	110.97	0.412	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	133.40	0.551	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene or PCE	165.83	0.231	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
romochloromethane	208.28	0.264	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
,2-Dibromoethane	187.86	0.562	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	112.56	0.171	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	167.85	0.117	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	106.17	0.308	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	106.17	0.473	5.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	106.17	0.227	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	104.15	0.181	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	120.19	0.339	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	252.73	0.338	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	167.85	0.649	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	147.43	0.451	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	157.01	0.127	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	134.22	0.296	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	134.22	0.301	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	147.00	0.084	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	147.00	0.047	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	147.00	0.164	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	134.22	0.276	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	181.45	0.406	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	260.76	0.461	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	128.17	0.715	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	181.45	0.573	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sample Condition (S,U)/Dilution (PQL)			1	S	S	S	S	S	S	S	S	S	S

S: Satisfactory, U: Unsatisfactory
U: see sample narrative
Dilution: numerical dilution factor used to quantitate analyte concentrations within the range of the initial calibration curve

[1] MW: Molecular Weight
[2] MDL: Method detection limit according to EPA 40CFR Part 136 Appendix B
[3] PQL: Practical quantitation limit using the initial calibration curve low point and dilution factors where applicable

SAMPLE NARRATIVE:

Quality Control Analyst: _____

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Samples Collected:	8/21/97 - 8/28/97	Collected by:	ABB-ES	Client:	ABB-ES
Samples Received:	8/25/97 - 9/3/97	Received by:	Guy Auld	Client Address:	1080 Woodcock Road, Suite 100
Samples Analyzed:	8/26/97 - 9/8/97	Analyzed by:	Guy Auld		Orlando, FL 32803
Samples Reported:	9/8/97	Reported by:	Guy Auld		
Project Identification:	NTC, ORLANDO	Report Revision:	0.0	Client Contact:	John Kaiser
...get Job Code:	ABT002	Method Deviations:	none	Client Phone:	407-895-8845
...hase Order:		Sampling Method:	Passive soil gas	Client Fax:	407-896-6150

USEPA Method 8260 Passive Soil Gas Sample Analysis Results (in ug/L)

Compound	MW[1] (g/mole)	MDL[2] (ug/L)	PQL[3] (ug/L)	32V-01901 (ug/L)	32V-01801 (ug/L)	32V-02601 (ug/L)	32V-02601D (ug/L)	32V-02501 (ug/L)	32V-03201 (ug/L)	32V-03301 (ug/L)	32V-03401 (ug/L)	32V-03501 (ug/L)	32V-03601 (ug/L)
Dichlorodifluoromethane	120.91	0.688	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	50.49	0.559	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	62.50	1.011	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	94.94	0.444	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	64.51	0.341	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	138.38	0.334	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	96.94	0.298	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	84.93	0.448	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	96.94	0.419	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	98.96	0.488	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	96.94	0.455	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	119.38	0.472	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	133.40	0.465	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	153.82	0.421	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	78.11	0.496	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	98.96	0.639	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	131.39	0.135	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	112.99	0.121	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	163.83	0.161	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	173.83	0.525	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	110.97	0.306	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	92.14	0.156	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	110.97	0.412	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	133.40	0.551	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
...achloroethylene or PCE	165.83	0.231	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
...omochloromethane	208.28	0.264	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
...2-Dibromoethane	187.86	0.562	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	112.56	0.171	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	167.85	0.117	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	106.17	0.308	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	106.17	0.473	5.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	106.17	0.227	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	104.15	0.181	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	120.19	0.339	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	252.73	0.338	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	167.85	0.649	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	147.43	0.451	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	157.01	0.127	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	134.22	0.296	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	134.22	0.301	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	147.00	0.084	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	147.00	0.047	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	147.00	0.164	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	134.22	0.276	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	181.45	0.406	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	260.76	0.461	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	128.17	0.715	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	181.45	0.573	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sample Condition (S,U)/Dilution (PQL)			1	S	S	S	S	S	S	S	S	S	S

S: Satisfactory, U: Unsatisfactory
U: see sample narrative
Dilution: numerical dilution factor used to quantitate analyte concentrations within the range of the initial calibration curve

[1] MW: Molecular Weight
[2] MDL: Method detection limit according to EPA 40CFR Part 136 Appendix B
[3] PQL: Practical quantitation limit using the initial calibration curve low point and dilution factors where applicable

...MPLE NARRATIVE:

...uality Control Analyst: _____

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Samples Collected:	8/21/97 - 8/28/97	Collected by:	ABB-ES	Client:	ABB-ES
Samples Received:	8/25/97 - 9/3/97	Received by:	Guy Auld	Client Address:	1080 Woodcock Road, Suite 100
Samples Analyzed:	8/26/97 - 9/8/97	Analyzed by:	Guy Auld		Orlando, FL 32803
Samples Reported:	9/8/97	Reported by:	Guy Auld		
Project Identification:	NTC, ORLANDO	Report Revision:	0.0	Client Contact:	John Kaiser
rget Job Code:	ABT002	Method Deviations:	none	Client Phone:	407-895-8845
rchase Order:		Sampling Method:	Passive soil gas	Client Fax:	407-896-6150

USEPA Method 8260 Passive Soil Gas Sample Analysis Results (in ug/L)

Compound	MW[1] (g/mole)	MDL[2] (ug/L)	PQL[3] (ug/L)	32V-04301 (ug/L)	32V-04201 (ug/L)	32V-04101 (ug/L)	32V-04001 (ug/L)	32V-03901 (ug/L)	32V-05101 (ug/L)	32V-05001 (ug/L)	32V-04901 (ug/L)	32V-04901D (ug/L)	32V-04801 (ug/L)
Dichlorodifluoromethane	120.91	0.688	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	50.49	0.559	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	62.50	1.011	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	94.94	0.444	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	64.51	0.341	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	138.38	0.334	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	96.94	0.298	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	84.93	0.448	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	96.94	0.419	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	98.96	0.488	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	96.94	0.455	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	119.38	0.472	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	133.40	0.465	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	153.82	0.421	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	78.11	0.496	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	98.96	0.639	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	131.39	0.135	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	112.99	0.121	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	163.83	0.161	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	173.83	0.525	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	110.97	0.306	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	92.14	0.156	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	110.97	0.412	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	133.40	0.551	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trachloroethylene or PCE	165.83	0.231	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
romochloromethane	208.28	0.264	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
,2-Dibromoethane	187.86	0.562	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	112.56	0.171	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	167.85	0.117	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	106.17	0.308	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	106.17	0.473	5.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	106.17	0.227	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	104.15	0.181	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	120.19	0.339	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	252.73	0.338	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	167.85	0.649	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	147.43	0.451	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	157.01	0.127	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	134.22	0.296	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	134.22	0.301	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	147.00	0.084	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	147.00	0.047	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	147.00	0.164	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	134.22	0.276	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	181.45	0.406	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	260.76	0.461	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	128.17	0.715	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	181.45	0.573	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sample Condition (S,U)/Dilution (PQL)			1	S	S	S	S	S	S	S	S	S	S

S: Satisfactory, U: Unsatisfactory
U: see sample narrative
Dilution: numerical dilution factor used to quantitate analyte concentrations within the range of the initial calibration curve

[1] MW: Molecular Weight
[2] MDL: Method detection limit according to EPA 40CFR Part 136 Appendix B
[3] PQL: Practical quantitation limit using the initial calibration curve low point and dilution factors where applicable

MPLE NARRATIVE:

Quality Control Analyst: _____

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Samples Collected:	8/21/97 - 8/28/97	Collected by:	ABB-ES	Client:	ABB-ES
Samples Received:	8/25/97 - 9/3/97	Received by:	Guy Auld	Client Address:	1080 Woodcock Road, Suite 100
Samples Analyzed:	8/26/97 - 9/8/97	Analyzed by:	Guy Auld		Orlando, FL 32803
Samples Reported:	9/8/97	Reported by:	Guy Auld		
Project Identification:	NTC, ORLANDO	Report Revision:	0.0	Client Contact:	John Kaiser
;et Job Code:	ABT002	Method Deviations:	none	Client Phone:	407-895-8845
:hase Order:		Sampling Method:	Passive soil gas	Client Fax:	407-896-6150

USEPA Method 8260 Passive Soil Gas Sample Analysis Results (in ug/L)

Compound	MW[1] (g/mole)	MDL[2] (ug/L)	PQL[3] (ug/L)	32V-04701 (ug/L)	32V-04501 (ug/L)	32V-04601 (ug/L)	32V-03101 (ug/L)	32V-02401 (ug/L)	32V-01701 (ug/L)	32V-01601 (ug/L)	32V-02301 (ug/L)	32V-03001 (ug/L)	32V-03001D (ug/L)
Dichlorodifluoromethane	120.91	0.688	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	50.49	0.559	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	62.50	1.011	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	94.94	0.444	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	64.51	0.341	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	138.38	0.334	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	96.94	0.298	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	84.93	0.448	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	96.94	0.419	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	98.96	0.488	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	96.94	0.455	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	119.38	0.472	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	133.40	0.465	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	153.82	0.421	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	78.11	0.496	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	98.96	0.639	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	131.39	0.135	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	112.99	0.121	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	163.83	0.161	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	173.83	0.525	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	110.97	0.306	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	92.14	0.156	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	110.97	0.412	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	133.40	0.551	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
achloroethylene or PCE	165.83	0.231	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
omochloromethane	208.28	0.264	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	187.86	0.562	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	112.56	0.171	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	167.85	0.117	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	106.17	0.308	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	106.17	0.473	5.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	106.17	0.227	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	104.15	0.181	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	120.19	0.339	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	252.73	0.338	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	167.85	0.649	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	147.43	0.451	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	157.01	0.127	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	134.22	0.296	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	134.22	0.301	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	147.00	0.084	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	147.00	0.047	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	147.00	0.164	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	134.22	0.276	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	181.45	0.406	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	260.76	0.461	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	128.17	0.715	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	181.45	0.573	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sample Condition (S,U)/Dilution (PQL)			1	S	S	S	S	S	S	S	S	S	S

S: Satisfactory, U: Unsatisfactory
U: see sample narrative
Dilution: numerical dilution factor used to quantitate analyte concentrations within the range of the initial calibration curve

[1] MW: Molecular Weight

[2] MDL: Method detection limit according to EPA 40CFR Part 136 Appendix B

[3] PQL: Practical quantitation limit using the initial calibration curve low point and dilution factors where applicable

MPLE NARRATIVE:

Quality Control Analyst: _____

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Samples Collected:	8/21/97 - 8/28/97	Collected by:	ABB-ES	Client:	ABB-ES
Samples Received:	8/25/97 - 9/3/97	Received by:	Guy Auld	Client Address:	1080 Woodcock Road, Suite 100
Samples Analyzed:	8/26/97 - 9/8/97	Analyzed by:	Guy Auld		Orlando, FL 32803
Samples Reported:	9/8/97	Reported by:	Guy Auld		
Project Identification:	NTC, ORLANDO	Report Revision:	0.0	Client Contact:	John Kaiser
Target Job Code:	ABT002	Method Deviations:	none	Client Phone:	407-895-8845
Purchase Order:		Sampling Method:	Passive soil gas	Client Fax:	407-896-6150

USEPA Method 8260 Passive Soil Gas Sample Analysis Results (in ug/L)

Compound	MW[1] (g/mole)	MDL[2] (ug/L)	PQL[3] (ug/L)	32V-03701 (ug/L)	32V-04401 (ug/L)	LABDUP 32V-02001 (ug/L)	LABDUP 32V-04801 (ug/L)	35V-00301 (ug/L)	35V-00401 (ug/L)	35V-00501 (ug/L)	35V-00601 (ug/L)	35V-01201 (ug/L)	35V-01101 (ug/L)
Dichlorodifluoromethane	120.91	0.688	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	50.49	0.559	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	62.50	1.011	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	94.94	0.444	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	64.51	0.341	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	138.38	0.334	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	96.94	0.298	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	84.93	0.448	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	96.94	0.419	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	98.96	0.488	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	96.94	0.455	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	119.38	0.472	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	133.40	0.465	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	153.82	0.421	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	78.11	0.496	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	98.96	0.639	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	131.39	0.135	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	112.99	0.121	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	163.83	0.161	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	173.83	0.525	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	110.97	0.306	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	92.14	0.156	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	110.97	0.412	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	133.40	0.551	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene or PCE	165.83	0.231	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	208.28	0.264	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	187.86	0.562	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	112.56	0.171	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	167.85	0.117	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	106.17	0.308	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	106.17	0.473	5.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	106.17	0.227	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	104.15	0.181	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	120.19	0.339	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	252.73	0.338	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	167.85	0.649	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	147.43	0.451	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	157.01	0.127	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	134.22	0.296	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	134.22	0.301	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	147.00	0.084	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	147.00	0.047	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	147.00	0.164	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	134.22	0.276	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	181.45	0.406	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	260.76	0.461	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	128.17	0.715	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	181.45	0.573	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sample Condition (S,U)/Dilution (PQL)			1	S	S	S	S	S	S	S	S	S	S

S: Satisfactory, U: Unsatisfactory

U: see sample narrative

Dilution: numerical dilution factor used to quantitate analyte concentrations within the range of the initial calibration curve

[1] MW: Molecular Weight

[2] MDL: Method detection limit according to EPA 40CFR Part 136 Appendix B

[3] PQL: Practical quantitation limit using the initial calibration curve low point and dilution factors where applicable

SAMPLE NARRATIVE:

Quality Control Analyst: _____

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APPENDIX C

SUMMARY OF POSITIVE DETECTIONS TABLES

Table C-1 Summary of Positive Detections in Surface Soil
Table C-2 Summary of Positive Detections in Subsurface Soil
Table C-3 Summary of Positive Detections in Groundwater

TABLE C-1

SUMMARY OF POSITIVE DETECTIONS IN SURFACE SOIL

Appendix C

Table C-1. Summary of Positive Detections in Surface Soil Analytical Results

Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	Background Screening [1]		SCG for Residential Soil [2]		RBC [3] for Residential Soil		RBC [3] for Industrial Soil		32S00101		32S00201		32S00301	
Sampling Date									10-Nov-97		10-Nov-97		10-Nov-97	
Semivolatile Organics, ug/kg														
Benzo(b)fluoranthene			1,400		880	c	7,800	c	20	J				
Benzo(k)fluoranthene			14,000		8,800	c	78,000	c	20	J				
Chrysene			140,000		88,000	c	780,000	c	23	J				
Fluoranthene			2,900,000		3,100,000	n	82,000,000	n	24	J				
Pyrene			2,200,000		2,300,000	n	61,000,000	n	25	J				
Pesticides/PCBs, ug/kg														
4,4'-DDE			3100		1,900	c	17,000	c					0.75	J
4,4'-DDT			3100		1,900	c	17,000	c	0.46	JP			2.2	JP
alpha-BHC			200		100	c	910	c	1.2	JP				
alpha-Chlordane			800		490	c	4,400	c	0.29	J			0.47	JP
beta-BHC			600		350	c	3,200	c	1.1	JP			0.2	JP
Dieldrin			70		40	c	360	c					0.15	JP
Endosulfan I			ND		ND		ND		0.15	JP				
Endrin ketone			ND		ND		ND		5.9	X				
gamma-BHC (Lindane)			800		490	c	4,400	c	0.24	JP				
gamma-Chlordane			800		490	c	4,400	c					0.51	BJ
Methoxychlor			380000		390,000	n	10,000,000	n	9.4	JX	1.2	J	2.8	JP
Inorganics, mg/kg														
Aluminum	2088		75000		78,000	n	1,000,000	n	1630		1470		1600	
Barium	8.7		5,200.0		5,500	n	140,000	n	3	B	1.7	B	6.1	B
Beryllium	ND		0.2		0.15	c	1	c	0.05	B				
Calcium	25295		ND		1000000		1000000		3880		674	B	1130	
Chromium	5		290		390	n	10,000	n	2.5		1.6	B	2.4	
Copper	4.1		ND		270,000	n	1,000,000	n	0.89	B			2.1	B
Iron	712		ND		23,000	n	610,000	n	1200		1920		537	
Lead	14.5		500		400		400		3.8		1.2		10	
Magnesium	328		ND		460,468		460,468		67.2	B	43.3	B	43.3	B
Manganese	8.1		370		1,800	n	47,000	n	8.8		2.3	B	6.1	
Mercury	0.07		23		23	n	610	n	0.41					
Nickel	4.4		1500		1,600	n	41,000	n	0.81	B			0.58	B
Potassium	210		ND		1,000,000		1,000,000		26.6	B	19.9	B	20.6	B

Appendix C

Table C-1. Summary of Positive Detections in Surface Soil Analytical Results

Study Area 32

Naval Training Center, Orlando

Orlando, FL

Sample ID	Background Screening [1]		SCG for Residential Soil [2]		RBC [3] for Residential Soil		RBC [3] for Industrial Soil		32S00101		32S00201		32S00301	
Sampling Date									10-Nov-97		10-Nov-97		10-Nov-97	
Selenium	1.1		390		390	n	10,000	n			0.75	B		
Sodium	ND		ND		100,000		1,000,000		10.5	BE	13.8	BE	16.2	BE
Vanadium	3.1		490		550	n	14,000	n	2.6	B	1.8	B	1.4	B
Zinc	17.2		23000		23,000	n	610,000	n	2.9	B	0.85	B	5.6	

Appendix C
Table C-1. Notes for Summary of Positive Detections in
Surface Soil Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

NOTES:

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

[2] SCG = Soil Cleanup Goals for Florida (Florida Department of Environmental Protection 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.

[3] 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, potassium, sodium) screening values were derived based on recommended daily allowances (RDAs).
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 C-2

SUMMARY OF POSITIVE DETECTIONS IN SUBSURFACE SOIL

Appendix C

Table C-2. Summary of Positive Detections in Subsurface Soil Analytical Results

Study Area 32

Naval Training Center, Orlando

Orlando, FL

Sample ID	Background Screening [1]		SCG for Residential Soil [2]		RBC [3] for Residential Soil		RBC [3] for Industrial Soil		32B00101		32B00201		32B00201D		32B00301	
Sampling Date									10-Nov-97		10-Nov-97		10-Nov-97		10-Nov-97	
Pesticides/PCBs, ug/kg																
alpha-Chlordane			NA		490	c	4,400	c							0.14	J
Dieldrin			NA		40	c	360	c							0.22	JP
gamma-Chlordane			NA		490	c	4,400	c			0.13	BJ			0.11	BJP
Methoxychlor			NA		390,000	n	10,000,000	n					0.84	J		
Inorganics, mg/kg																
Aluminum	2,119		NA		78,000	n	1,000,000	n	1720		426		388		1580	
Barium	3.6		NA		5,500	n	140,000	n	0.37	B	0.25	B	0.32	B	0.47	B
Beryllium	ND		NA		0.15	c	1.3	c	0.05	B						
Calcium	115		NA		1,000,000		1,000,000		1670		277	B	221	B	580	B
Chromium	4		NA		390	n	10,000	n	4.9		1.2	B	1.4	B	3.1	
Copper	ND		NA		270,000	n	1,000,000	n	0.66	B						
Iron	264		NA		23,000	n	610,000	n	80.1		227		278		63.1	
Lead	3.9		NA		400		400		1.9		0.79		0.9		1.4	
Magnesium	32.8		NA		460,468		460,468		26.2	B	6.6	B	7.2	B	22.7	B
Manganese	2.1		NA		1,800	n	47,000	n	0.43	B	0.32	B	0.36	B	0.64	B
Mercury	ND		NA		23	n	610	n	0.05	B					0.14	
Potassium	185		NA		1,000,000		1,000,000		11.6	B			9.6	B		
Sodium	ND		NA		100,000		1,000,000		8.6	BE	13	BE	14	BE	12.6	BE
Vanadium	3.4		NA		550	n	14,000	n	0.54	B	0.48	B	0.5	B	0.58	B
Zinc	5.6		NA		23,000	n	610,000	n	0.58	B	0.56	B	0.33	B	0.53	B
General Chemistry, mg/kg																
TRPH	ND		ND		ND		ND								12	

Appendix C

Table C-2. Summary of Positive Detections in Subsurface Soil Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

NOTES:

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

[2] SCG = Soil Cleanup Goals for Florida (Florida Department of Environmental Protection memorandum, September 29, 1995). For detected analytes and compounds in subsurface soils, SCGs are not applicable (NAs) because there are no associated exceedances of Florida groundwater guidance concentrations in site groundwater.

[3] RBC = Risk-Based Concentration Table, USEPA Region III, March 1997, 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, potassium, sodium, magnesium) screening values were derived based on recommended daily allowances (RDAs).

n = noncarcinogenic pathway
c = carcinogenic pathway
NA = Not applicable (for SCGs) or not analyzed.
ND = Not determined.
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 C-3

SUMMARY OF POSITIVE DETECTIONS IN GROUNDWATER

Appendix C

Table C-3. Summary of Positive Detections in Groundwater Analytical Results

Study Area 32

Naval Training Center, Orlando

Orlando, FL

Sample ID	Background [1] Screening		FDEPG		Primary FEDMCL		RBC[2] for Tap Water		32G00101		32G00201		32G00301		32H00101		32H00201		32H00301	
Sampling Date									19-Nov-97		19-Nov-97		19-Nov-97		19-Nov-97		19-Nov-97		19-Nov-97	
Pesticides/PCBs, ug/L																				
delta-BHC			0.05	st	ND		ND				0.0031	JP								
gamma-BHC (Lindane)			ND		ND		0.052	c			0.0029	JP								
Inorganics, ug/L																				
Aluminum	4,067		200	s	ND		37,000	n	589		4660		1370		153	B	745		1250	
Antimony	4.1		6	p	6		15	n			4.3	B					3.6	B		
Barium	31.4		2,000	p	2,000		2,600	n	0.96	B	12.9	B	1.9	B	0.88	B	4.9	B	1.9	B
Beryllium	ND		4	p	4		0.016	c			0.35	B	0.24	B	0.32	B	0.23	B	0.28	B
Calcium	36,830		ND		ND		1,000,000		20700		15700		6420		21300		14200		6280	
Chromium	7.8		100		100		ND				7.4	B								
Cobalt	ND		ND		ND		2,200	n			1.6	B								
Copper	5.4		1,000	s	1,300		1,500	n	2.4	B	4.2	B								
Iron	1,227		300	s	ND		11,000	n			638		50.8	B			168		55.7	B
Lead	4		15	p	15		15				3.3									
Magnesium	4,560		ND		ND		118,807		2030	B	1330	B	3300	B	2110	B	1240	B	3280	B
Manganese	17		50	s	ND		840	n			3.7	B					2.5	B		
Mercury	0.12		2		2		11	n			0.11	B								
Potassium	5,400		ND		ND		297,016		2010	B	1830	B	1440	B	1910	B	1780	B	1470	B
Sodium	18,222		160,000	p	ND		396,022		2810	BE	5110	E	6010	E	3150	B	5130		5890	
Vanadium	20.6		49	st	ND		260	n	4.6	B	7.8	B	1.7	B	3.8	B	2.6	B		
Zinc	4		5000	s	ND		11,000	n	3	B	2.9	B	5.4	B	6.2	B	2.3	B	6.6	B
General Chemistry, mg/L																				
Suspended Solids	ND		ND		ND		ND				96									

Apendix C
Table C-3. Notes for Summary of Positive Detections in Groundwater Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

NOTES:

A full independent data validation is pending for groundwater analytical results.

[1] Groundwater background screening value is twice the average of detected concentrations for inorganic analytes.

[2] 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 treatment technology action limit for lead in drinking water distribution system identified in Drinking Water Standards and Health Advisories (USEPA, 1995). For essential nutrients (calcium, magnesium, potassium, and sodium) screening values were derived based on recommended daily allowances (RDAs).
Value for copper is a treatment level.

p = Primary Standard
s = Secondary Standard.
st = Systemic Toxicant

n = noncarcinogenic effects.
c = carcinogenic effects.
NA = Not analyzed.
ND = Not determined.
USEPA = U.S. Environmental Protection Agency.
FDEPG = Florida Department of Environmental Protection, Groundwater Guidance Concentrations, June 1994.
FEDMCL= Federal Maximum Contaminant Levels, Primary Drinking Water Regulations and Health Advisories, February 1996.
B = Reported concentration is between the instrument detection limit (IDL) and the contract required detection limit (CRDL).
The "B" qualifier typically changes to "J" (estimated concentration) upon data validation.
H = Filtered sample (0.45 micron in-line filter).
J = Reported concentration is an estimated quantity.
ug/l = micrograms per liter.
mg/l = miligrams per liter.
Bold/shaded numbers indicate exceedance of groundwater guidance and background.
Blank space indicates analyte/compound was not detected at the reporting limit.

APPENDIX D

SUMMARY OF ANALYTICAL RESULTS

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

TABLE D-1

SUMMARY OF SURFACE SOIL ANALYTICAL RESULTS

Appendix D
Table D-1. Summary of Surface Soil Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	32S00101		32S00201		32S00301	
Lab ID	S776391*18		S776391*16		S776391*19	
Sampling Date	10-Nov-97		10-Nov-97		10-Nov-97	
Volatile organics, ug/kg						
1,1,1-Trichloroethane	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U
1,1,2-Trichloroethane	10	U	10	U	10	U
1,1-Dichloroethane	10	U	10	U	10	U
1,1-Dichloroethene	10	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	U
1,2-Dichloroethene (total)	10	U	10	U	10	U
1,2-Dichloropropane	10	U	10	U	10	U
2-Butanone	10	U	10	U	10	U
2-Hexanone	10	U	10	U	10	U
4-Methyl-2-pentanone	10	U	10	U	10	U
Acetone	10	UJ	10	U	10	UJ
Benzene	10	U	10	U	10	U
Bromodichloromethane	10	U	10	U	10	U
Bromoform	10	U	10	U	10	U
Bromomethane	10	U	10	U	10	U
Carbon disulfide	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U
Chlorobenzene	10	U	10	U	10	U
Chloroethane	10	U	10	U	10	U
Chloroform	10	U	10	U	10	U
Chloromethane	10	U	10	U	10	U
cis-1,3-Dichloropropene	10	U	10	U	10	U
Dibromochloromethane	10	U	10	U	10	U
Ethylbenzene	10	U	10	U	10	U
Methylene chloride	10	U	10	U	10	U
Styrene	10	U	10	U	10	U
Tetrachloroethene	10	U	10	U	10	U
Toluene	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	U
Trichloroethene	10	U	10	U	10	U
Vinyl chloride	10	U	10	U	10	U
Xylene (total)	10	U	10	U	10	U
Semivolatile organics, ug/kg						
1,2,4-Trichlorobenzene	350	U	340	U	350	U
1,2-Dichlorobenzene	350	U	340	U	350	U
1,3-Dichlorobenzene	350	U	340	U	350	U
1,4-Dichlorobenzene	350	U	340	U	350	U
2,2'-oxybis(1-Chloropropane)	350	UJ	340	U	350	U
2,4,5-Trichlorophenol	870	U	860	U	870	U
2,4,6-Trichlorophenol	350	U	340	U	350	U
2,4-Dichlorophenol	350	U	340	U	350	U
2,4-Dimethylphenol	350	U	340	U	350	U
2,4-Dinitrophenol	870	U	860	U	870	U
2,4-Dinitrotoluene	350	UJ	340	U	350	U
2,6-Dinitrotoluene	350	U	340	U	350	U
2-Chloronaphthalene	350	U	340	U	350	U
2-Chlorophenol	350	U	340	U	350	U
2-Methylnaphthalene	350	U	340	U	350	U
2-Methylphenol	350	U	340	U	350	U
2-Nitroaniline	870	U	860	U	870	U

Appendix D
Table D-1. Summary of Surface Soil Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	32S00101		32S00201		32S00301	
Lab ID	S776391*18		S776391*16		S776391*19	
Sampling Date	10-Nov-97		10-Nov-97		10-Nov-97	
2-Nitrophenol	350	U	340	U	350	U
3,3'-Dichlorobenzidine	350	U	340	U	350	U
3-Methylphenol/4-Methylphenol	350	U	340	U	350	U
3-Nitroaniline	870	U	860	U	870	U
4,6-Dinitro-2-methylphenol	870	U	860	U	870	U
4-Bromophenyl-phenylether	350	U	340	U	350	U
4-Chloro-3-methylphenol	350	UJ	340	U	350	U
4-Chloroaniline	350	U	340	U	350	U
4-Chlorophenyl-phenylether	350	U	340	U	350	U
4-Nitroaniline	870	U	860	U	870	U
4-Nitrophenol	870	UJ	860	UJ	870	U
Acenaphthene	350	U	340	U	350	U
Acenaphthylene	350	U	340	U	350	U
Anthracene	350	U	340	U	350	U
Benzo(a)anthracene	350	U	340	U	350	U
Benzo(a)pyrene	350	U	340	U	350	U
Benzo(b)fluoranthene	20	J	340	U	350	U
Benzo(g,h,i)perylene	350	U	340	U	350	UJ
Benzo(k)fluoranthene	20	J	340	U	350	U
bis(2-Chloroethoxy)methane	350	U	340	U	350	U
bis(2-Chloroethyl)ether	350	U	340	U	350	U
bis(2-Ethylhexyl)phthalate	350	UJ	340	UJ	350	UJ
Butylbenzylphthalate	350	UJ	340	U	350	U
Carbazole	350	U	340	U	350	U
Chrysene	23	J	340	U	350	U
Di-n-butylphthalate	350	U	340	U	350	U
Di-n-octylphthalate	350	U	340	UJ	350	UJ
Dibenz(a,h)anthracene	350	U	340	U	350	UJ
Dibenzofuran	350	U	340	U	350	U
Diethylphthalate	350	UJ	340	UJ	350	U
Dimethylphthalate	350	U	340	U	350	U
Fluoranthene	24	J	340	U	350	U
Fluorene	350	U	340	U	350	U
Hexachlorobenzene	350	U	340	U	350	U
Hexachlorobutadiene	350	UJ	340	U	350	U
Hexachlorocyclopentadiene	350	U	340	U	350	U
Hexachloroethane	350	U	340	U	350	U
Indeno(1,2,3-cd)pyrene	350	U	340	U	350	U
Isophorone	350	U	340	U	350	U
N-Nitroso-di-n-propylamine	350	U	340	U	350	U
N-Nitrosodiphenylamine	350	U	340	U	350	U
Naphthalene	350	U	340	U	350	U
Nitrobenzene	350	UJ	340	U	350	U
Pentachlorophenol	870	U	860	U	870	U
Phenanthrene	350	U	340	U	350	U
Phenol	350	U	340	U	350	U
Pyrene	25	J	340	U	350	U
Pesticides/PCBs, ug/kg						
4,4'-DDD	3.5	U	3.4	U	3.5	U
4,4'-DDE	3.5	U	3.4	U	0.75	J
4,4'-DDT	0.46	J	3.4	U	2.2	J
Aldrin	1.8	U	1.8	U	1.8	U

Appendix D
Table D-1. Summary of Surface Soil Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	32S00101		32S00201		32S00301	
Lab ID	S776391*18		S776391*16		S776391*19	
Sampling Date	10-Nov-97		10-Nov-97		10-Nov-97	
alpha-BHC	1.2	J	1.8	U	1.8	U
alpha-Chlordane	0.29	J	1.8	U	0.47	J
Aroclor-1016	35	U	34	U	35	U
Aroclor-1221	70	U	70	U	70	U
Aroclor-1232	35	U	34	U	35	U
Aroclor-1242	35	U	34	U	35	U
Aroclor-1248	35	U	34	U	35	U
Aroclor-1254	35	U	34	U	35	U
Aroclor-1260	35	U	34	U	35	U
beta-BHC	1.1	J	1.8	U	0.2	J
delta-BHC	1.8	U	1.8	U	1.8	U
Dieldrin	3.5	U	3.4	U	0.15	J
Endosulfan I	0.15	J	1.8	U	1.8	U
Endosulfan II	3.5	U	3.4	U	3.5	U
Endosulfan sulfate	3.5	U	3.4	U	3.5	U
Endrin	3.5	U	3.4	U	3.5	U
Endrin aldehyde	3.5	U	3.4	U	3.5	U
Endrin ketone	5.9	J	3.4	U	3.5	U
gamma-BHC (Lindane)	0.24	J	1.8	U	1.8	U
gamma-Chlordane	1.8	U	1.8	U	0.51	J
Heptachlor	1.8	U	1.8	U	1.8	U
Heptachlor epoxide	1.8	U	1.8	U	1.8	U
Methoxychlor	9.4	J	1.2	J	2.8	J
Toxaphene	180	U	180	U	180	U
Inorganics, mg/kg						
Aluminum	1630		1470		1600	
Antimony	0.69	U	0.69	U	0.69	U
Arsenic	0.76	U	0.75	U	0.76	U
Barium	3	U	1.7	U	6.1	J
Beryllium	0.05	J	0.04	U	0.04	U
Cadmium	0.13	U	0.12	U	0.13	U
Calcium	3880		674	U	1130	U
Chromium	2.5		1.6	U	2.4	
Cobalt	0.21	U	0.21	U	0.21	U
Copper	0.89	U	0.46	U	2.1	U
Iron	1200		1920		537	
Lead	3.8		1.2	U	10	
Magnesium	67.2	U	43.3	U	43.3	U
Manganese	8.8		2.3	U	6.1	
Mercury	0.41		0.03	U	0.03	U
Nickel	0.81	J	0.48	U	0.58	J
Potassium	26.6	U	19.9	U	20.6	U
Selenium	0.55	U	0.75	J	0.55	U
Silver	0.63	U	0.62	U	0.63	U
Sodium	10.5	UJ	13.8	UJ	16.2	UJ
Thallium	0.99	U	0.98	U	0.99	U
Vanadium	2.6	J	1.8	J	1.4	J
Zinc	2.9	U	0.85	U	5.6	U

Notes for Summary of Analytical Results Tables
Study Area 32

Naval Training Center, Orlando
Orlando Florida

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

Units:

mg/kg	milligram per kilogram
ug/kg	microgram per kilogram
mg/L	milligram per liter
ug/L	microgram 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.

TABLE D-2

SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

Appendix D
Table D-2. Summary of Subsurface Soil Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	32B00101		32B00201		32B00201D		32B00301	
Lab ID	S776391*5		S776391*4		S776391*17		S776391*6	
Sampling Date	10-Nov-97		10-Nov-97		10-Nov-97		10-Nov-97	
Volatile organics, ug/kg								
1,1,1-Trichloroethane	11	U	11	U	11	U	11	U
1,1,2,2-Tetrachloroethane	11	U	11	U	11	U	11	U
1,1,2-Trichloroethane	11	U	11	U	11	U	11	U
1,1-Dichloroethane	11	U	11	U	11	U	11	U
1,1-Dichloroethene	11	U	11	U	11	U	11	U
1,2-Dichloroethane	11	U	11	U	11	U	11	U
1,2-Dichloroethene (total)	11	U	11	U	11	U	11	U
1,2-Dichloropropane	11	U	11	U	11	U	11	U
2-Butanone	11	U	11	U	11	U	11	U
2-Hexanone	11	U	11	U	11	U	11	U
4-Methyl-2-pentanone	11	U	11	U	11	U	11	U
Acetone	11	U	11	U	11	UJ	11	U
Benzene	11	U	11	U	11	U	11	U
Bromodichloromethane	11	U	11	U	11	U	11	U
Bromoform	11	U	11	U	11	U	11	U
Bromomethane	11	U	11	U	11	U	11	U
Carbon disulfide	11	U	11	U	11	U	11	U
Carbon tetrachloride	11	U	11	U	11	U	11	U
Chlorobenzene	11	U	11	U	11	U	11	U
Chloroethane	11	U	11	U	11	U	11	U
Chloroform	11	U	11	U	11	U	11	U
Chloromethane	11	U	11	U	11	U	11	U
cis-1,3-Dichloropropene	11	U	11	U	11	U	11	U
Dibromochloromethane	11	U	11	U	11	U	11	U
Ethylbenzene	11	U	11	U	11	U	11	U
Methylene chloride	11	U	11	U	11	U	11	U
Styrene	11	U	11	U	11	U	11	U
Tetrachloroethene	11	U	11	U	11	U	11	U
Toluene	11	U	11	U	11	U	11	U
trans-1,3-Dichloropropene	11	U	11	U	11	U	11	U
Trichloroethene	11	U	11	U	11	U	11	U
Vinyl chloride	11	U	11	U	11	U	11	U
Xylene (total)	11	U	11	U	11	U	11	U
Semivolatile organics, ug/kg								
1,2,4-Trichlorobenzene	380	U	360	U	360	U	380	U
1,2-Dichlorobenzene	380	U	360	U	360	U	380	U
1,3-Dichlorobenzene	380	U	360	U	360	U	380	U
1,4-Dichlorobenzene	380	U	360	U	360	U	380	U
2,2'-oxybis(1-Chloropropane)	380	U	360	U	360	U	380	U
2,4,5-Trichlorophenol	940	U	900	U	900	U	940	U
2,4,6-Trichlorophenol	380	U	360	U	360	U	380	U
2,4-Dichlorophenol	380	U	360	U	360	U	380	U
2,4-Dimethylphenol	380	U	360	U	360	U	380	U
2,4-Dinitrophenol	940	U	900	U	900	U	940	U
2,4-Dinitrotoluene	380	U	360	U	360	U	380	U
2,6-Dinitrotoluene	380	U	360	U	360	U	380	U
2-Chloronaphthalene	380	U	360	U	360	U	380	U
2-Chlorophenol	380	U	360	U	360	U	380	U
2-Methylnaphthalene	380	U	360	U	360	U	380	U
2-Methylphenol	380	U	360	U	360	U	380	U
2-Nitroaniline	940	U	900	U	900	U	940	U

Appendix D
Table D-2. Summary of Subsurface Soil Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	32B00101		32B00201		32B00201D		32B00301	
Lab ID	S776391*5		S776391*4		S776391*17		S776391*6	
Sampling Date	10-Nov-97		10-Nov-97		10-Nov-97		10-Nov-97	
2-Nitrophenol	380	U	360	U	360	U	380	U
3,3'-Dichlorobenzidine	380	U	360	U	360	U	380	U
3-Methylphenol/4-Methylphenol	380	U	360	U	360	U	380	U
3-Nitroaniline	940	U	900	U	900	U	940	U
4,6-Dinitro-2-methylphenol	940	U	900	U	900	U	940	U
4-Bromophenyl-phenylether	380	U	360	U	360	U	380	U
4-Chloro-3-methylphenol	380	U	360	U	360	U	380	U
4-Chloroaniline	380	U	360	U	360	U	380	U
4-Chlorophenyl-phenylether	380	U	360	U	360	U	380	U
4-Nitroaniline	940	U	900	U	900	U	940	U
4-Nitrophenol	940	UJ	900	UJ	900	UJ	940	UJ
Acenaphthene	380	U	360	U	360	U	380	U
Acenaphthylene	380	U	360	U	360	U	380	U
Anthracene	380	U	360	U	360	U	380	U
Benzo(a)anthracene	380	U	360	U	360	U	380	U
Benzo(a)pyrene	380	U	360	U	360	U	380	U
Benzo(b)fluoranthene	380	U	360	U	360	U	380	U
Benzo(g,h,i)perylene	380	U	360	U	360	U	380	U
Benzo(k)fluoranthene	380	U	360	U	360	U	380	U
bis(2-Chloroethoxy)methane	380	U	360	U	360	U	380	U
bis(2-Chloroethyl)ether	380	U	360	U	360	U	380	U
bis(2-Ethylhexyl)phthalate	380	UJ	360	UJ	360	UJ	380	UJ
Butylbenzylphthalate	380	U	360	U	360	U	380	U
Carbazole	380	U	360	U	360	U	380	U
Chrysene	380	U	360	U	360	U	380	U
Di-n-butylphthalate	380	U	360	U	360	U	380	U
Di-n-octylphthalate	380	UJ	360	UJ	360	UJ	380	UJ
Dibenz(a,h)anthracene	380	U	360	U	360	U	380	U
Dibenzofuran	380	U	360	U	360	U	380	U
Diethylphthalate	380	UJ	360	UJ	360	UJ	380	UJ
Dimethylphthalate	380	U	360	U	360	U	380	U
Fluoranthene	380	U	360	U	360	U	380	U
Fluorene	380	U	360	U	360	U	380	U
Hexachlorobenzene	380	U	360	U	360	U	380	U
Hexachlorobutadiene	380	U	360	U	360	U	380	U
Hexachlorocyclopentadiene	380	U	360	U	360	U	380	U
Hexachloroethane	380	U	360	U	360	U	380	U
Indeno(1,2,3-cd)pyrene	380	U	360	U	360	U	380	U
Isophorone	380	U	360	U	360	U	380	U
N-Nitroso-di-n-propylamine	380	U	360	U	360	U	380	U
N-Nitrosodiphenylamine	380	U	360	U	360	U	380	U
Naphthalene	380	U	360	U	360	U	380	U
Nitrobenzene	380	U	360	U	360	U	380	U
Pentachlorophenol	940	U	900	U	900	U	940	U
Phenanthrene	380	U	360	U	360	U	380	U
Phenol	380	U	360	U	360	U	380	U
Pyrene	380	U	360	U	360	U	380	U
Pesticides/PCBs, ug/kg								
4,4'-DDD	3.7	U	3.6	U	3.6	U	3.7	U
4,4'-DDE	3.7	U	3.6	U	3.6	U	3.7	U
4,4'-DDT	3.7	U	3.6	U	3.6	U	3.7	U
Aldrin	1.9	U	1.8	U	1.8	U	1.9	U

Appendix D
Table D-2. Summary of Subsurface Soil Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	32B00101		32B00201		32B00201D		32B00301	
Lab ID	S776391*5		S776391*4		S776391*17		S776391*6	
Sampling Date	10-Nov-97		10-Nov-97		10-Nov-97		10-Nov-97	
alpha-BHC	1.9	U	1.8	U	1.8	U	1.9	U
alpha-Chlordane	1.9	U	1.8	U	1.8	U	0.14	J
Aroclor-1016	38	U	36	U	36	U	38	U
Aroclor-1221	76	U	73	U	73	U	76	U
Aroclor-1232	38	U	36	U	36	U	38	U
Aroclor-1242	38	U	36	U	36	U	38	U
Aroclor-1248	38	U	36	U	36	U	38	U
Aroclor-1254	38	U	36	U	36	U	38	U
Aroclor-1260	38	U	36	U	36	U	38	U
beta-BHC	1.9	U	1.8	U	1.8	U	1.9	U
delta-BHC	1.9	U	1.8	U	1.8	U	1.9	U
Dieldrin	3.7	U	3.6	U	3.6	U	0.22	J
Endosulfan I	1.9	U	1.8	U	1.8	U	1.9	U
Endosulfan II	3.7	U	3.6	U	3.6	U	3.7	U
Endosulfan sulfate	3.7	U	3.6	U	3.6	U	3.7	U
Endrin	3.7	U	3.6	U	3.6	U	3.7	U
Endrin aldehyde	3.7	U	3.6	U	3.6	U	3.7	U
Endrin ketone	3.7	U	3.6	U	3.6	U	3.7	U
gamma-BHC (Lindane)	1.9	U	1.8	U	1.8	U	1.9	U
gamma-Chlordane	1.9	U	1.8	UJ	1.8	UJ	0.11	J
Heptachlor	1.9	U	1.8	U	1.8	U	1.9	U
Heptachlor epoxide	1.9	U	1.8	U	1.8	U	1.9	U
Methoxychlor	19	U	18	UJ	0.84	J	19	U
Toxaphene	190	U	180	U	180	U	190	U
Inorganics, mg/kg								
Aluminum	1720		426		388		1580	
Antimony	0.75	U	0.72	U	0.72	U	0.75	U
Arsenic	0.82	U	0.78	U	0.78	U	0.82	U
Barium	0.37	U	0.25	U	0.32	U	0.47	U
Beryllium	0.05	J	0.04	U	0.04	U	0.05	U
Cadmium	0.14	U	0.13	U	0.13	U	0.14	U
Calcium	1670	U	277	U	221	U	580	U
Chromium	4.9		1.2	U	1.4	U	3.1	
Cobalt	0.23	U	0.22	U	0.22	U	0.23	U
Copper	0.66	U	0.48	U	0.48	U	0.5	U
Iron	80.1		227		278		63.1	
Lead	1.9	U	0.79	U	0.9	U	1.4	U
Magnesium	26.2	U	6.6	U	7.2	U	22.7	U
Manganese	0.43	U	0.32	U	0.36	U	0.64	U
Mercury	0.05	J	0.02	U	0.02	U	0.14	
Nickel	0.52	U	0.5	U	0.5	U	0.52	U
Potassium	11.6	U	8.7	U	9.6	UJ	9.1	U
Selenium	0.59	U	0.57	U	0.57	U	0.59	U
Silver	0.68	U	0.65	U	0.65	U	0.68	U
Sodium	8.6	UJ	13	UJ	14	UJ	12.6	UJ
Thallium	1.1	U	1	U	1	U	1.1	U
Vanadium	0.54	J	0.48	J	0.5	J	0.58	J
Zinc	0.58	U	0.56	UJ	0.33	UJ	0.53	U
General Chemistry, mg/kg								
TRPH	11	U	11	U	NA		12	

Notes for Summary of Analytical Results Tables
Study Area 32

Naval Training Center, Orlando
Orlando Florida

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

Units:

mg/kg milligram per kilogram
ug/kg microgram per kilogram
mg/L milligram per liter
ug/L microgram 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.

TABLE D-3

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Appendix D
Table D-3. Summary of Groundwater Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	32G00101		32H00101		32G00201		32H00201		32G00301		32H00301	
Lab ID	S776587*1		S776587*4		S776587*2		S776587*5		S776587*3		S776587*6	
Sampling Date	11/19/97		11/19/97		11/19/97		11/19/97		11/19/97		11/19/97	
Volatile organics, ug/L												
1,1,1-Trichloroethane	1	U	NA		1	U	NA		1	U	NA	
1,1,2,2-Tetrachloroethane	1	U	NA		1	U	NA		1	U	NA	
1,1,2-Trichloroethane	1	U	NA		1	U	NA		1	U	NA	
1,1-Dichloroethane	1	U	NA		1	U	NA		1	U	NA	
1,1-Dichloroethene	1	U	NA		1	U	NA		1	U	NA	
1,2-Dichlorobenzene	1	U	NA		1	U	NA		1	U	NA	
1,3-Dichlorobenzene	1	U	NA		1	U	NA		1	U	NA	
1,4-Dichlorobenzene	1	U	NA		1	U	NA		1	U	NA	
1,2,4-Trichlorobenzene	1	UJ	NA		1	UJ	NA		1	UJ	NA	
1,2-Dibromo-3-chloropropane	1	UJ	NA		1	UJ	NA		1	UJ	NA	
1,2-Dibromoethane (EDB)	1	U	NA		1	U	NA		1	U	NA	
1,2-Dichloroethane	1	U	NA		1	U	NA		1	U	NA	
1,2-Dichloropropane	1	U	NA		1	U	NA		1	U	NA	
2-Butanone	5	U	NA		5	U	NA		5	U	NA	
2-Hexanone	5	U	NA		5	U	NA		5	U	NA	
4-Methyl-2-pentanone	5	U	NA		5	U	NA		5	U	NA	
Acetone	5	UR	NA		5	UR	NA		5	UR	NA	
Benzene	1	U	NA		1	U	NA		1	U	NA	
Bromochloromethane	1	U	NA		1	U	NA		1	U	NA	
Bromodichloromethane	1	U	NA		1	U	NA		1	U	NA	
Bromoform	1	U	NA		1	U	NA		1	U	NA	
Bromomethane	1	U	NA		1	U	NA		1	U	NA	
Carbon disulfide	1	U	NA		1	U	NA		1	U	NA	
Carbon tetrachloride	1	U	NA		1	U	NA		1	U	NA	
Chlorobenzene	1	U	NA		1	U	NA		1	U	NA	
Chloroethane	1	U	NA		1	U	NA		1	U	NA	
Chloroform	1	U	NA		1	U	NA		1	U	NA	
Chloromethane	1	U	NA		1	U	NA		1	U	NA	
cis-1,2-Dichloroethene	1	U	NA		1	U	NA		1	U	NA	
cis-1,3-Dichloropropene	1	U	NA		1	U	NA		1	U	NA	
Dibromochloromethane	1	U	NA		1	U	NA		1	U	NA	
Ethylbenzene	1	U	NA		1	U	NA		1	U	NA	
Methylene chloride	2	U	NA		2	U	NA		2	U	NA	
Styrene	1	U	NA		1	U	NA		1	U	NA	
Tetrachloroethene	1	U	NA		1	U	NA		1	U	NA	
Toluene	1	U	NA		1	U	NA		1	U	NA	
trans-1,2-Dichloroethylene	1	U	NA		1	U	NA		1	U	NA	
trans-1,3-Dichloropropene	1	U	NA		1	U	NA		1	U	NA	
Trichloroethene	1	U	NA		1	U	NA		1	U	NA	
Vinyl chloride	1	U	NA		1	U	NA		1	U	NA	
Xylene (total)	1	U	NA		1	U	NA		1	U	NA	
Semivolatile organics, ug/L												
2,2'-oxybis(1-Chloropropane)	10	U	NA		10	U	NA		10	U	NA	
2,4,5-Trichlorophenol	25	U	NA		25	U	NA		25	U	NA	
2,4,6-Trichlorophenol	10	U	NA		10	U	NA		10	U	NA	
2,4-Dichlorophenol	10	U	NA		10	U	NA		10	U	NA	
2,4-Dimethylphenol	10	U	NA		10	U	NA		10	U	NA	
2,4-Dinitrophenol	25	UJ	NA		25	UJ	NA		25	UJ	NA	
2,4-Dinitrotoluene	10	U	NA		10	U	NA		10	U	NA	
2,6-Dinitrotoluene	10	U	NA		10	U	NA		10	U	NA	
2-Chloronaphthalene	10	U	NA		10	U	NA		10	U	NA	
2-Chlorophenol	10	U	NA		10	U	NA		10	U	NA	

Appendix D
Table D-3. Summary of Groundwater Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	32G00101		32H00101		32G00201		32H00201		32G00301		32H00301	
Lab ID	S776587*1		S776587*4		S776587*2		S776587*5		S776587*3		S776587*6	
Sampling Date	11/19/97		11/19/97		11/19/97		11/19/97		11/19/97		11/19/97	
2-Methylnaphthalene	10	U	NA		10	U	NA		10	U	NA	
2-Methylphenol	10	U	NA		10	U	NA		10	U	NA	
2-Nitroaniline	25	U	NA		25	U	NA		25	U	NA	
2-Nitrophenol	10	U	NA		10	U	NA		10	U	NA	
3,3'-Dichlorobenzidine	10	U	NA		10	U	NA		10	U	NA	
3-Methylphenol/4-Methylphenol	10	U	NA		10	U	NA		10	U	NA	
3-Nitroaniline	25	U	NA		25	U	NA		25	U	NA	
4,6-Dinitro-2-methylphenol	25	U	NA		25	U	NA		25	U	NA	
4-Bromophenyl-phenylether	10	U	NA		10	U	NA		10	U	NA	
4-Chloro-3-methylphenol	10	U	NA		10	U	NA		10	U	NA	
4-Chloroaniline	10	U	NA		10	U	NA		10	U	NA	
4-Chlorophenyl-phenylether	10	U	NA		10	U	NA		10	U	NA	
4-Nitroaniline	25	U	NA		25	U	NA		25	U	NA	
4-Nitrophenol	25	U	NA		25	U	NA		25	U	NA	
Acenaphthene	10	U	NA		10	U	NA		10	U	NA	
Acenaphthylene	10	U	NA		10	U	NA		10	U	NA	
Anthracene	10	U	NA		10	U	NA		10	U	NA	
Benzo(a)anthracene	10	U	NA		10	U	NA		10	U	NA	
Benzo(a)pyrene	10	U	NA		10	U	NA		10	U	NA	
Benzo(b)fluoranthene	10	U	NA		10	U	NA		10	U	NA	
Benzo(g,h,i)perylene	10	UJ	NA		10	UJ	NA		10	UJ	NA	
Benzo(k)fluoranthene	10	U	NA		10	U	NA		10	U	NA	
bis(2-Chloroethoxy)methane	10	U	NA		10	U	NA		10	U	NA	
bis(2-Chloroethyl)ether	10	U	NA		10	U	NA		10	U	NA	
bis(2-Ethylhexyl)phthalate	10	U	NA		10	U	NA		10	U	NA	
Butylbenzylphthalate	10	U	NA		10	U	NA		10	U	NA	
Carbazole	10	U	NA		10	U	NA		10	U	NA	
Chrysene	10	U	NA		10	U	NA		10	U	NA	
Di-n-butylphthalate	10	U	NA		10	U	NA		10	U	NA	
Di-n-octylphthalate	10	UJ	NA		10	UJ	NA		10	UJ	NA	
Dibenz(a,h)anthracene	10	UJ	NA		10	UJ	NA		10	UJ	NA	
Dibenzofuran	10	U	NA		10	U	NA		10	U	NA	
Diethylphthalate	10	U	NA		10	U	NA		10	U	NA	
Dimethylphthalate	10	U	NA		10	U	NA		10	U	NA	
Fluoranthene	10	U	NA		10	U	NA		10	U	NA	
Fluorene	10	U	NA		10	U	NA		10	U	NA	
Hexachlorobenzene	10	U	NA		10	U	NA		10	U	NA	
Hexachlorobutadiene	10	U	NA		10	U	NA		10	U	NA	
Hexachlorocyclopentadiene	10	U	NA		10	U	NA		10	U	NA	
Hexachloroethane	10	U	NA		10	U	NA		10	U	NA	
Indeno(1,2,3-cd)pyrene	10	UJ	NA		10	UJ	NA		10	UJ	NA	
Isophorone	10	U	NA		10	U	NA		10	U	NA	
N-Nitroso-di-n-propylamine	10	U	NA		10	U	NA		10	U	NA	
N-Nitrosodiphenylamine	10	U	NA		10	U	NA		10	U	NA	
Naphthalene	10	U	NA		10	U	NA		10	U	NA	
Nitrobenzene	10	U	NA		10	U	NA		10	U	NA	
Pentachlorophenol	25	U	NA		25	U	NA		25	U	NA	
Phenanthrene	10	U	NA		10	U	NA		10	U	NA	
Phenol	10	U	NA		10	U	NA		10	U	NA	
Pyrene	10	U	NA		10	U	NA		10	U	NA	
Pesticides/PCBs, ug/L												
4,4'-DDD	0.1	U	NA		0.1	UJ	NA		0.1	U	NA	
4,4'-DDE	0.1	U	NA		0.1	UJ	NA		0.1	U	NA	

Appendix D
Table D-3. Summary of Groundwater Analytical Results
Study Area 32

Naval Training Center, Orlando
Orlando, FL

Sample ID	32G00101		32H00101		32G00201		32H00201		32G00301		32H00301	
Lab ID	S776587*1		S776587*4		S776587*2		S776587*5		S776587*3		S776587*6	
Sampling Date	11/19/97		11/19/97		11/19/97		11/19/97		11/19/97		11/19/97	
4,4'-DDT	0.1	U	NA		0.1	UJ	NA		0.1	U	NA	
Aldrin	0.05	U	NA		0.05	UJ	NA		0.05	U	NA	
alpha-BHC	0.05	U	NA		0.05	UJ	NA		0.05	U	NA	
alpha-Chlordane	0.05	U	NA		0.05	UJ	NA		0.05	U	NA	
Aroclor-1016	1	U	NA		1	UJ	NA		1	U	NA	
Aroclor-1221	2	U	NA		2	UJ	NA		2	U	NA	
Aroclor-1232	1	U	NA		1	UJ	NA		1	U	NA	
Aroclor-1242	1	U	NA		1	UJ	NA		1	U	NA	
Aroclor-1248	1	U	NA		1	UJ	NA		1	U	NA	
Aroclor-1254	1	U	NA		1	UJ	NA		1	U	NA	
Aroclor-1260	1	U	NA		1	UJ	NA		1	U	NA	
beta-BHC	0.05	U	NA		0.05	UJ	NA		0.05	U	NA	
delta-BHC	0.05	U	NA		0	J	NA		0.05	U	NA	
Dieldrin	0.1	U	NA		0.1	UJ	NA		0.1	U	NA	
Endosulfan I	0.05	U	NA		0.05	UJ	NA		0.05	U	NA	
Endosulfan II	0.1	U	NA		0.1	UJ	NA		0.1	U	NA	
Endosulfan sulfate	0.1	U	NA		0.1	UJ	NA		0.1	U	NA	
Endrin	0.1	U	NA		0.1	UJ	NA		0.1	U	NA	
Endrin aldehyde	0.1	U	NA		0.1	UJ	NA		0.1	U	NA	
Endrin ketone	0.1	U	NA		0.1	UJ	NA		0.1	U	NA	
gamma-BHC (Lindane)	0.05	U	NA		0	J	NA		0.05	U	NA	
gamma-Chlordane	0.05	U	NA		0.05	UJ	NA		0.05	U	NA	
Heptachlor	0.05	U	NA		0.05	UJ	NA		0.05	U	NA	
Heptachlor epoxide	0.05	U	NA		0.05	UJ	NA		0.05	U	NA	
Methoxychlor	0.5	U	NA		0.5	UJ	NA		0.5	U	NA	
Toxaphene	5	U	NA		5	UJ	NA		5	U	NA	
Inorganics, ug/L												
Aluminum	589		153	J	4660		745		1370		1250	
Antimony	3.3	U	3.3	U	4.3	J	3.6	J	3.3	U	3.3	U
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U
Barium	0.96	U	0.88	U	12.9	U	4.9	U	1.9	U	1.9	U
Beryllium	0.2	U	0.32	U	0.35	U	0.23	U	0.24	U	0.28	U
Cadmium	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
Calcium	20700		21300		15700		14200		6420		6280	
Chromium	2	U	2	U	7.4	J	2	U	2	U	2	U
Cobalt	1	U	1	U	1.6	J	1	U	1	U	1	U
Copper	2.4	J	2.2	U	4.2	J	2.2	U	2.2	U	2.2	U
Iron	35.3	U	35.3	U	638		168		50.8	J	55.7	J
Lead	1.2	U	1.2	U	3.3		1.2	U	1.2	U	1.2	U
Magnesium	2030	J	2110	J	1330	J	1240	J	3300	J	3280	J
Manganese	0.4	U	0.4	U	3.7	U	2.5	U	0.4	U	0.4	U
Mercury	0.1	U	0.1	U	0.11	J	0.1	U	0.1	U	0.1	U
Nickel	2.3	U	2.3	U	2.3	U	2.3	U	2.3	U	2.3	U
Potassium	2010	J	1910	J	1830	J	1780	J	1440	J	1470	J
Selenium	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U
Silver	3	U	3	U	3	U	3	U	3	U	3	U
Sodium	2810	J	3150	J	5110	J	5130	J	6010	J	5890	J
Thallium	4.7	U	4.7	U	4.7	U	4.7	U	4.7	U	4.7	U
Vanadium	4.6	J	3.8	J	7.8	J	2.6	J	1.7	J	1.7	U
Zinc	3	U	6.2	U	2.9	U	2.3	U	5.4	U	6.6	U
General Chemistry, mg/L												
Suspended Solids	5	U	NA		96		NA		5	U	NA	
TRPH	1	U	NA		1	U	NA		1	U	NA	

Notes for Summary of Analytical Results Tables
Study Area 32

Naval Training Center, Orlando
Orlando Florida

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

Units:

mg/kg milligram per kilogram
ug/kg microgram per kilogram
mg/L milligram per liter
ug/L microgram 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.