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NAS CECIL FIELD, FL
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SAMPLING AND ANALYSIS OUTLINE REPORT FOR BUILDING 182 BASE REALIGNMENT
AND CLOSURE REVISION 1 NAS CECIL FIELD FL
3/29/2000
TETRA TECH NUS INC

**Sampling and Analysis
Outline Report
for
Building 182
Base Realignment and Closure**

Naval Air Station Cecil Field
Jacksonville, Florida



**Southern Division
Naval Facilities Engineering Command
Contract Number N62467-94-D-0888
Contract Task Order 0078**

March 2000

**SAMPLING AND ANALYSIS OUTLINE REPORT
FOR
BUILDING 182
BASE REALIGNMENT AND CLOSURE**

**NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA**

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT N62467-89-D-0088**

**Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406**

**Submitted by:
Tetra Tech NUS, Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh, Pennsylvania 15220**

**CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0078**

MARCH 2000

PREPARED UNDER THE SUPERVISION OF:


MARK SPERANZA, P.E.
TASK ORDER MANAGER
TETRA TECH NUS, INC.
PITTSBURGH, PENNSYLVANIA

APPROVED FOR SUBMITTAL BY:


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



The professional opinions rendered in this decision document identified as Sampling and Analysis Outline Report for Building 182, Naval Air Station Cecil Field, Jacksonville, Florida were developed in accordance with commonly accepted procedures consistent with applicable standards of practice. Decision documents are based on information obtained from others and under the supervision of the signing engineer. If conditions are determined to exist differently than those described in this document, then the undersigned professional engineer should be notified to evaluate the effects of any additional information on this project described in this report.

Mark P Speranza
Mark Speranza, P.E.
Professional Engineer No. PE0050304

Date: 3/31/00

Mark Speranza



CERTIFICATION OF TECHNICAL
DATA CONFORMITY

The Contractor, Tetra Tech NUS, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-94-D-0888 are complete and accurate and comply with all requirements of this contract.

DATE: March 15, 2000

NAME AND TITLE OF CERTIFYING OFFICIAL:

Mark Speranza, P.E.
Task Order Manager

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ACRONYMS

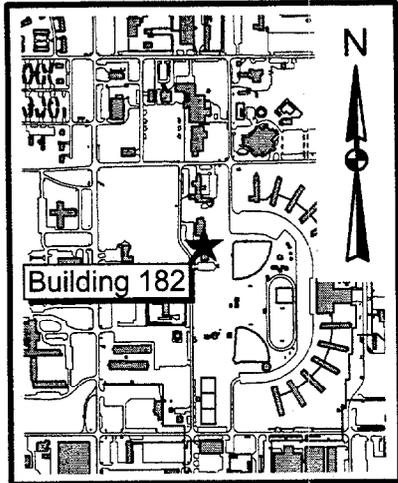
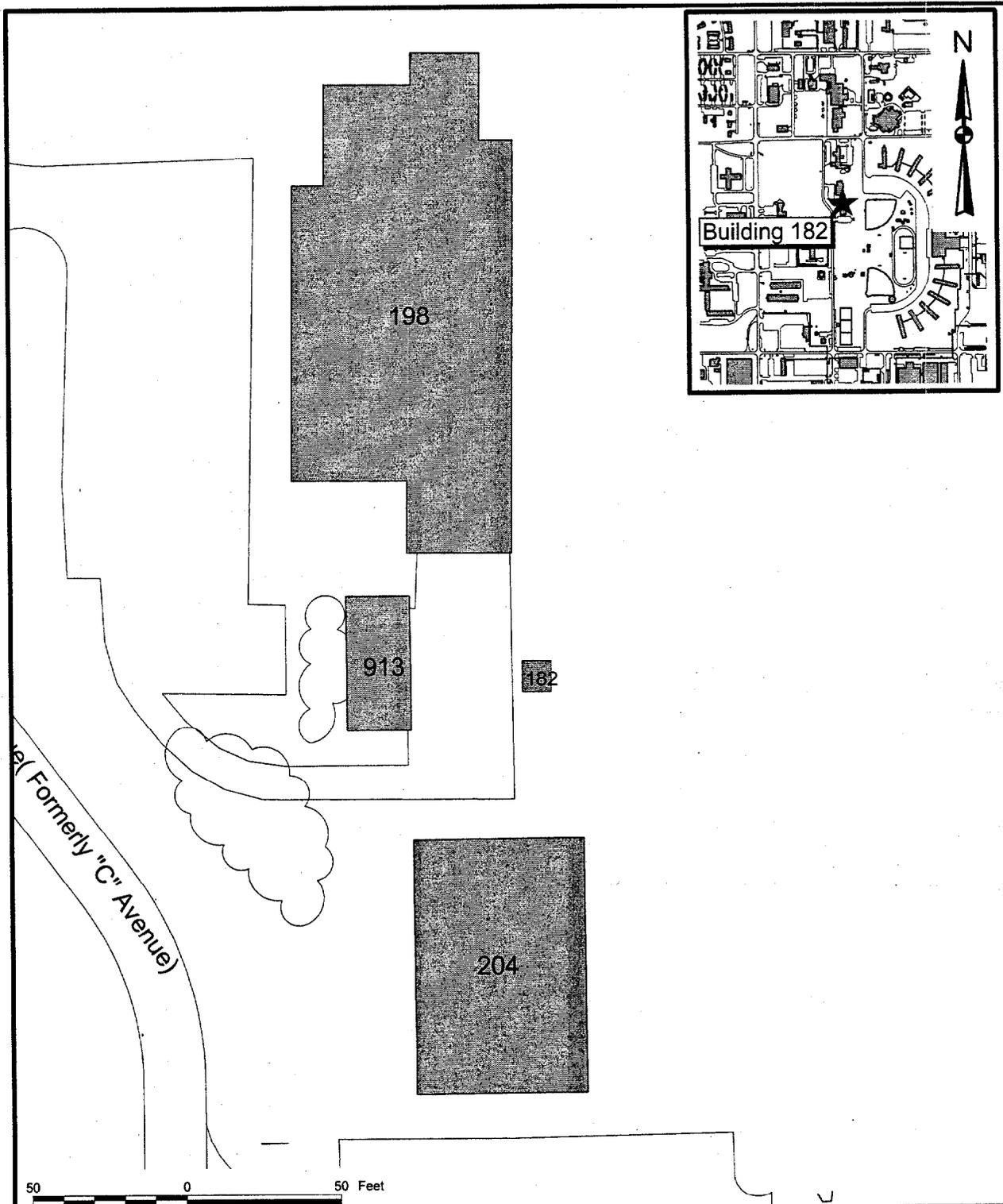
ABB-ES	ABB Environmental Services, Inc.
BCT	BRAC Cleanup Team
BRAC	Base Realignment and Closure
CTO	Contract Task Order
EBS	Environmental Baseline Study
EDC	Economic Development Commission
NAS	Naval Air Station
PAH	Polynuclear aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PRE	Preliminary Risk Evaluation
SVOC	Semivolatile organic compound
TCL	Target Compound List
TtNUS	Tetra Tech NUS, Inc.
U.S. EPA	United States Environmental Protection Agency
VOC	Volatile organic compound

1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS), under contract to Southern Division, Naval Facilities Engineering Command, has completed Base Realignment and Closure (BRAC) sampling and analysis for Building 182 at Naval Air Station (NAS) Cecil Field. This program was conducted under Contract Number N62467-94-D-088, Contract Task Order (CTO) 0078. This report summarizes the related field operations, results, conclusions, and recommendation of the investigation.

Building 182 (Hazmat Shed) is located in the Main Base Area south of Newman Street (formerly 6th Street), between Authority Avenue (formerly C Avenue) and Pool Side Avenue (formerly B Circle) (see Figure 1-1).

During the Environmental Baseline Study (EBS) for the Economic Development Commission (EDC), an area of stressed vegetation was observed to the north of the building. Subsequently, one soil sample was collected at this location to investigate potential impact of soils.



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SCALE AS NOTED	



SITE LOCATION MAP
BUILDING 182
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

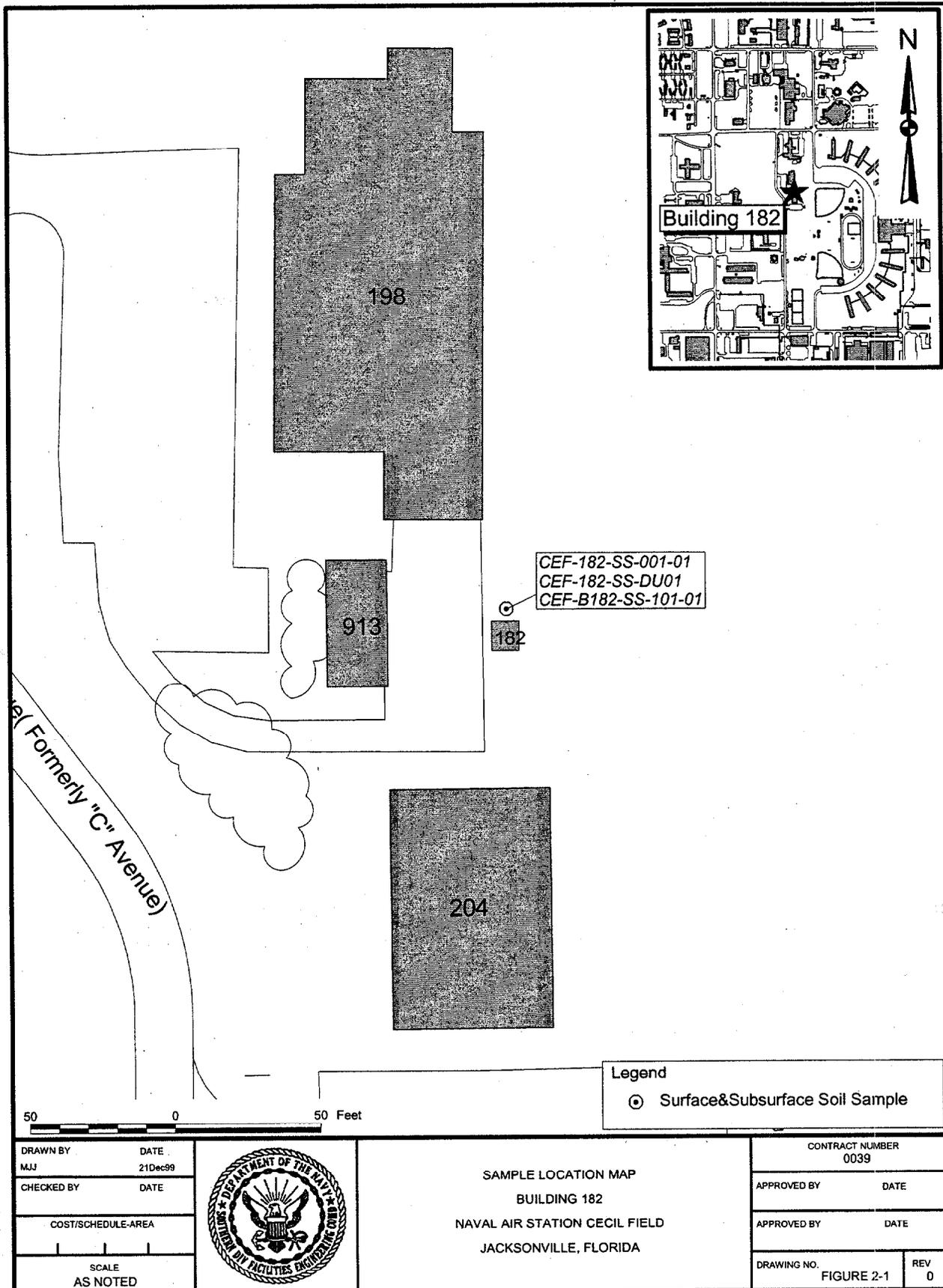
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APPROVED BY	DATE
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2.0 SAMPLING AND ANALYSIS OUTLINE

A Sampling and Analysis Work Plan for the assessment of this site was prepared by TtNUS and approved by the BRAC Cleanup Team (BCT) (TtNUS, 1999).

One surface soil sample from the area of stressed vegetation was collected and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs). A sample from this location was also collected and analyzed for polynuclear aromatic hydrocarbons (PAHs) by United States Environmental Protection Agency (U.S. EPA) Method 8310 to obtain a lower detection limit for these compounds reported under the SVOC analysis method 8270C. The soil sample location is shown in Figure 2-1



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3.0 RESULTS AND PRELIMINARY RISK EVALUATION

VOCs, SVOCs, PAHs, pesticides, and PCBs were not detected in the soil sample from Building 182. Based on this information, neither a human health preliminary risk evaluation (PRE) nor an ecological risk assessment is required for this site.

4.0 CONCLUSIONS AND RECOMMENDATION

Contaminants were not detected in the soil sample collected at Building 182 (Hazmat Shed). No other environmental concerns have been identified for this facility.

Based upon the findings of this evaluation, the color code for Building 182 should be reclassified to Light Green. No further action or further evaluation is recommended.

REFERENCES

ABB-ES, 1994. Base Realignment and Closure Environmental Baseline Survey Report, Naval Air Station, Cecil Field, Jacksonville, Florida.

Florida Department of Environmental Protection (FDEP), 1999. Contaminant Target Cleanup Levels, Florida Administrative Code (F.A.C.) Chapter 62-777, August.

Tetra Tech NUS, Inc. (TtNUS), 1999. Sampling and Analysis Work Plan, Building 30 (Commissary) and Building 182 (Hazmat Shed), Naval Air Station Cecil Field, Jacksonville, Florida, December.

TtNUS, 1998. Base-Wide Generic Work Plan, Naval Air Station Cecil Field, Jacksonville, Florida. October.

United States Environmental Protection Agency (U.S. EPA), 1996. Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM), May.

APPENDIX A
LABORATORY ANALYTICAL DATA

MEMO TO: MR. M. SPERANZA
DATE: FEBRUARY 28, 2000 – PAGE 2

PESTICIDE/PCB FRACTION

It should be noted that sample CEF-30-SS-001-01 was analyzed at dilutions of 200X and 1000X due to PCB interference thus causing elevated reporting limits.

EXECUTIVE SUMMARY

Laboratory performance: None.

Other Factors Affecting Data Quality: Sample CEF-30-SS-001-01 was analyzed at a dilution.

MEMO TO: MR. M. SPERANZA
DATE: FEBRUARY 28, 2000 – PAGE 3

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1994), and the NFESC "Navy Installation Restoration Program Laboratory Quality Assurance Guide" (February, 1996). The text of this report has been formulated to address only those problems affecting data quality.

"I attest that the data referenced herein was validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."


Justin Orbich

Chemist/Data Validator
Tetra Tech, NUS


Joseph A. Samchuck

Data Validation Quality Assurance Officer
Tetra Tech, NUS

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

DATA QUALIFIER DEFINITIONS:

U - Value is a nondetected result as reported by the laboratory and should not be considered present.

Qualifier Codes:

- A = Lab Blank Contamination
- B = Field Blank Contamination
- C = Calibration (i.e., % RSDs, %Ds, ICVs, CCVs, RPDs, RRFs, etc.) Noncompliance
- D = MS/MSD Noncompliance
- E = LCS/LCSD Noncompliance
- F = Lab Duplicate Imprecision
- G = Field Duplicate Imprecision
- H = Holding Time Exceedance
- I = ICP Serial Dilution Noncompliance
- J = GFAA PDS - GFAA MSA's $r < 0.995$
- K = ICP Interference - include ICSAB % R's
- L = Instrument Calibration Range Exceedance
- M = Sample Preservation
- N = Internal Standard Noncompliance
- O = Poor Instrument Performance (i.e., base-time drifting)
- P = Uncertainty near detection limit ($< 2 \times$ IDL for inorganics and $<$ CRQL for organics)
- Q = Other problems (can encompass a number of issues)
- R = Surrogates Recovery Noncompliance
- S = Pesticide/PCB Resolution
- T = % Breakdown Noncompliance for DDT and Endrin
- U = Pest/PCB D% between columns for positive results
- V = Non-linear calibrations, tuning $r < 0.995$ (correlation coefficient)
- W = EMPC result
- X = Signal to noise response drop
- Y = % Solid content is less than 30%

APPENDIX A

Qualified Analytical Results

CTO NAS CECIL FIELD

SOIL DATA

Accutest, NJ

SDG: F5425

SAMPLE NUMBER:	CEF-182-SS-001-01	CEF-182-SS-DU01	CEF-30-SS-001-01	
SAMPLE DATE:	12/06/99	12/06/99	12/06/99	//
LABORATORY ID:	F5425-1	F5425-2	F5425-3	
QC_TYPE:	NORMAL	NORMAL	NORMAL	
% SOLIDS:	93.7 %	89.7 %	87.1 %	100.0 %
UNITS:	UG/KG	UG/KG	UG/KG	
FIELD DUPLICATE OF:		CEF-182-SS-001-01		

	RESULT	QUAL	CODE									
VOLATILES												
1,1,1-TRICHLOROETHANE	2.2	U		2.3	U		2.4	U				
1,1,2,2-TETRACHLOROETHANE	2.2	U		2.3	U		2.4	U				
1,1,2-TRICHLOROETHANE	2.2	U		2.3	U		2.4	U				
1,1-DICHLOROETHANE	2.2	U		2.3	U		2.4	U				
1,1-DICHLOROETHENE	2.2	U		2.3	U		2.4	U				
1,2-DICHLOROETHANE	2.2	U		2.3	U		2.4	U				
1,2-DICHLOROPROPANE	2.2	U		2.3	U		2.4	U				
2-BUTANONE	11	U		12	U		12	U				
2-HEXANONE	11	U		12	U		12	U				
4-METHYL-2-PENTANONE	11	U		12	U		12	U				
ACETONE	55	U		58	U		59	U				
BENZENE	2.2	U		2.3	U		2.4	U				
BROMODICHLOROMETHANE	2.2	U		2.3	U		2.4	U				
BROMOFORM	2.2	U		2.3	U		2.4	U				
BROMOMETHANE	5.5	U		5.8	U		5.9	U				
CARBON DISULFIDE	11	U		12	U		12	U				
CARBON TETRACHLORIDE	2.2	U		2.3	U		2.4	U				
CHLOROENZENE	2.2	U		2.3	U		2.4	U				
CHLOROETHANE	5.5	U		5.8	U		5.9	U				
CHLOROFORM	2.2	U		2.3	U		2.4	U				
CHLOROMETHANE	5.5	U		5.8	U		5.9	U				
CIS-1,2-DICHLOROETHENE	2.2	U		2.3	U		2.4	U				
CIS-1,3-DICHLOROPROPENE	2.2	U		2.3	U		2.4	U				
DIBROMOCHLOROMETHANE	2.2	U		2.3	U		2.4	U				
ETHYLBENZENE	2.2	U		2.3	U		2.4	U				
METHYLENE CHLORIDE	11	U		12	U		12	U				
STYRENE	2.2	U		2.3	U		2.4	U				
TETRACHLOROETHENE	2.2	U		2.3	U		2.4	U				
TOLUENE	2.2	U		2.3	U		2.4	U				
TRANS-1,2-DICHLOROETHENE	2.2	U		2.3	U		2.4	U				
TRANS-1,3-DICHLOROPROPENE	2.2	U		2.3	U		2.4	U				
TRICHLOROETHENE	2.2	U		2.3	U		2.4	U				
VINYL CHLORIDE	5.5	U		5.8	U		5.9	U				
XYLENES TOTAL	6.6	U		7	U		7.1	U				

CTO051-NAS CECIL FIELD

SOIL DATA

Accutest, NJ

SDG: F5425

SAMPLE NUMBER:	CEF-182-SS-001-01	CEF-182-SS-DU01	CEF-30-SS-001-01
SAMPLE DATE:	12/06/99	12/06/99	12/06/99
LABORATORY ID:	F5425-1	F5425-2	F5425-3
QC_TYPE:	NORMAL	NORMAL	NORMAL
% SOLIDS:	93.7 %	89.7 %	87.1 %
UNITS:	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:		CEF-182-SS-001-01	

//
100.0 %

	RESULT	QUAL	CODE									
SEMIVOLATILES												
1,2,4-TRICHLOROBENZENE	360	U		370	U		380	U				
1,2-DICHLOROBENZENE	360	U		370	U		380	U				
1,3-DICHLOROBENZENE	360	U		370	U		380	U				
1,4-DICHLOROBENZENE	360	U		370	U		380	U				
2,4,5-TRICHLOROPHENOL	360	U		370	U		380	U				
2,4,6-TRICHLOROPHENOL	360	U		370	U		380	U				
2,4-DICHLOROPHENOL	360	U		370	U		380	U				
2,4-DIMETHYLPHENOL	890	U		930	U		960	U				
2,4-DINITROPHENOL	890	U		930	U		960	U				
2,4-DINITROTOLUENE	360	U		370	U		380	U				
2,6-DINITROTOLUENE	360	U		370	U		380	U				
2-CHLORONAPHTHALENE	360	U		370	U		380	U				
2-CHLOROPHENOL	360	U		370	U		380	U				
2-METHYLNAPHTHALENE	360	U		370	U		380	U				
2-METHYLPHENOL	360	U		370	U		380	U				
2-NITROANILINE	360	U		370	U		380	U				
2-NITROPHENOL	360	U		370	U		380	U				
3&4-METHYLPHENOL	360	U		370	U		380	U				
3,3'-DICHLOROBENZIDINE	710	U		740	U		760	U				
3-NITROANILINE	360	U		370	U		380	U				
4,6-DINITRO-2-METHYLPHENOL	710	U		740	U		760	U				
4-BROMOPHENYL PHENYL ETHER	360	U		370	U		380	U				
4-CHLORO-3-METHYLPHENOL	360	U		370	U		380	U				
4-CHLOROANILINE	360	U		370	U		380	U				
4-CHLOROPHENYL PHENYL ETHER	360	U		370	U		380	U				
4-NITROANILINE	360	U		370	U		380	U				
4-NITROPHENOL	890	U		930	U		960	U				
ACENAPHTHENE	360	U		370	U		380	U				
ACENAPHTHYLENE	360	U		370	U		380	U				
ANTHRACENE	360	U		370	U		380	U				
BENZO(A)ANTHRACENE	360	U		370	U		380	U				
BENZO(B)FLUORANTHENE	360	U		370	U		380	U				
BENZO(K)FLUORANTHENE	360	U		370	U		380	U				
BENZO(G,H)PERYLENE	360	U		370	U		380	U				

CTO () NAS CECIL FIELD
 SOIL DATA
 Accutest, NJ
 SDG: F5425

SAMPLE NUMBER:	CEF-182-SS-001-01	CEF-182-SS-DU01	CEF-30-SS-001-01	
SAMPLE DATE:	12/06/99	12/06/99	12/06/99	//
LABORATORY ID:	F5425-1	F5425-2	F5425-3	
QC_TYPE:	NORMAL	NORMAL	NORMAL	
% SOLIDS:	93.7 %	89.7 %	87.1 %	100.0 %
UNITS:	UG/KG	UG/KG	UG/KG	
FIELD DUPLICATE OF:		CEF-182-SS-001-01		

	RESULT	QUAL	CODE									
SEMIVOLATILES												
BENZO(K)FLUORANTHENE	360	U		370	U		380	U				
BIS(2-CHLOROETHOXY)METHANE	360	U		370	U		380	U				
BIS(2-CHLOROETHYL)ETHER	360	U		370	U		380	U				
BIS(2-CHLOROISOPROPYL) ETHER	360	U		370	U		380	U				
BIS(2-ETHYLHEXYL)PHTHALATE	360	U		370	U		380	U				
BUTYLBENZYL PHTHALATE	360	U		370	U		380	U				
CARBAZOLE	360	U		370	U		380	U				
CHRYSENE	360	U		370	U		380	U				
DI-N-BUTYL PHTHALATE	360	U		370	U		380	U				
DI-N-OCTYL PHTHALATE	360	U		370	U		380	U				
DIBENZO(A,H)ANTHRACENE	360	U		370	U		380	U				
DIBENZOFURAN	360	U		370	U		380	U				
DIETHYL PHTHALATE	360	U		370	U		380	U				
DIMETHYL PHTHALATE	360	U		370	U		380	U				
FLUORANTHENE	360	U		370	U		380	U				
FLUORENE	360	U		370	U		380	U				
HEXACHLOROENZENE	360	U		370	U		380	U				
HEXACHLOROBUTADIENE	360	U		370	U		380	U				
HEXACHLOROCYCLOPENTADIENE	360	U		370	U		380	U				
HEXACHLOROETHANE	360	U		370	U		380	U				
INDENO(1,2,3-CD)PYRENE	360	U		370	U		380	U				
ISOPHORONE	360	U		370	U		380	U				
N-NITROSO-DI-N-PROPYLAMINE	360	U		370	U		380	U				
N-NITROSODIPHENYLAMINE	360	U		370	U		380	U				
NAPHTHALENE	360	U		370	U		380	U				
NITROBENZENE	360	U		370	U		380	U				
PENTACHLOROPHENOL	890	U		930	U		960	U				
PHENANTHRENE	360	U		370	U		380	U				
PHENOL	360	U		370	U		380	U				
PYRENE	360	U		370	U		380	U				

CTO051-NAS CECIL FIELD

SOIL DATA
Accutest, NJ
SDG: F5425

SAMPLE NUMBER:	CEF-182-SS-001-01	CEF-182-SS-DU01	CEF-30-SS-001-01	
SAMPLE DATE:	12/06/99	12/06/99	12/06/99	//
LABORATORY ID:	F5425-1	F5425-2	F5425-3	
QC_TYPE:	NORMAL	NORMAL	NORMAL	
% SOLIDS:	93.7 %	89.7 %	87.1 %	100.0 %
UNITS:	UG/KG	UG/KG	UG/KG	
FIELD DUPLICATE OF:		CEF-182-SS-001-01		

	RESULT	QUAL	CODE									
PESTICIDES/PCBs												
4,4'-DDD	3.6	U		3.7	U		3800	U				
4,4'-DDE	3.6	U		3.7	U		3800	U				
4,4'-DDT	3.6	U		3.7	U		3800	U				
ALDRIN	1.8	U		1.8	U		1900	U				
ALPHA-BHC	1.8	U		1.8	U		1900	U				
ALPHA-CHLORDANE	3.6	U		3.7	U		3150					
AROCLOR-1016	36	U		37	U		38000	U				
AROCLOR-1221	36	U		37	U		38000	U				
AROCLOR-1232	36	U		37	U		38000	U				
AROCLOR-1242	36	U		37	U		38000	U				
AROCLOR-1248	36	U		37	U		38000	U				
AROCLOR-1254	36	U		37	U		62300	J		Q		
AROCLOR-1260	36	U		37	U		38000	U				
BETA-BHC	1.8	U		1.8	U		1900	U				
DELTA-BHC	1.8	U		1.8	U		1900	U				
DIELDRIN	1.8	U		1.8	U		1900	U				
ENDOSULFAN I	1.8	U		1.8	U		1900	U				
ENDOSULFAN II	3.6	U		3.7	U		3800	U				
ENDOSULFAN SULFATE	3.6	U		3.7	U		3800	U				
ENDRIN	3.6	U		3.7	U		3800	U				
ENDRIN ALDEHYDE	3.6	U		3.7	U		3800	U				
ENDRIN KETONE	3.6	U		3.7	U		3800	U				
GAMMA-BHC (LINDANE)	1.8	U		1.8	U		1900	U				
GAMMA-CHLORDANE	3.6	U		3.7	U		5220					
HEPTACHLOR	1.8	U		1.8	U		392					
HEPTACHLOR EPOXIDE	1.8	U		1.8	U		1900	U				
METHOXYCHLOR	7.1	U		7.4	U		7600	U				
TOXAPHENE	180	U		180	U		190000	U				



Tetra Tech NUS

INTERNAL CORRESPONDENCE

PITT-02-0-055

TO: MARK SPERANZA

FROM: JUSTIN ORBICH

**SUBJECT: ORGANIC DATA VALIDATION – VOA
CTO 078 – NAS CECIL FIELD
SDG F5645**

**SAMPLES: 1/Surface Soil
CEF-B182-SS-101-01**

DATE: FEBRUARY 9, 2000

CC: DV FILE

OVERVIEW

The sample set for CTO 078, SDG F5645 Naval Air Station (NAS) Cecil Field; Florida consists of one (1) surface soil environmental samples. The samples were analyzed for Polynuclear Aromatic Hydrocarbon (PAH) organic compounds. No field duplicate pairs were included within this SDG.

The samples were collected by Tetra Tech, NUS on and January 14th, 2000 and analyzed by Accutest Laboratories. All analyses were performed in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria and analyzed according to SW 846 Method 8310 analytical and reporting protocols. The data in this SDG was validated with regard to the following parameters:

- * • Data Completeness
- * • Holding Times
- * • Initial/continuing calibrations
- * • Laboratory method/field quality control blank results
- * • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified analytical results are presented in Appendix A.

PAH FRACTION

All quality control parameters were met for this fraction.

MEMO TO: MARK SPERANZA
DATE: FEBRUARY 9, 2000 – PAGE 2

EXECUTIVE SUMMARY

Laboratory performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1994), and the NFESC "Navy Installation Restoration Program Laboratory Quality Assurance Guide" (February, 1996). The text of this report has been formulated to address only those problems affecting data quality.

"I attest that the data referenced herein was validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."


Justin Orbich

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Tetra Tech, NUS


Joseph A. Samchuck

Data Validation Quality Assurance Officer
Tetra Tech, NUS

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

Qualifier Codes:

- A = Lab Blank Contamination
- B = Field Blank Contamination
- C = Calibration (i.e., % RSDs, %Ds, ICVs, CCVs, RPDs, RRFs, etc.) Noncompliance
- D = MS/MSD Noncompliance
- E = LCS/LCSD Noncompliance
- F = Lab Duplicate Imprecision
- G = Field Duplicate Imprecision
- H = Holding Time Exceedance
- I = ICP Serial Dilution Noncompliance
- J = GFAA PDS - GFAA MSA's $r < 0.995$
- K = ICP Interference - include ICSAB % R's
- L = Instrument Calibration Range Exceedance
- M = Sample Preservation
- N = Internal Standard Noncompliance
- O = Poor Instrument Performance (i.e., base-time drifting)
- P = Uncertainty near detection limit ($< 2 \times$ IDL for inorganics and $<$ CRQL for organics)
- Q = Other problems (can encompass a number of issues)
- R = Surrogates Recovery Noncompliance
- S = Pesticide/PCB Resolution
- T = % Breakdown Noncompliance for DDT and Endrin
- U = Pest/PCB D% between columns for positive results
- V = Non-linear calibrations, tuning $r < 0.995$ (correlation coefficient)
- W = EMPC result
- X = Signal to noise response drop
- Y = % Solid content is less than 30%

DATA QUALIFIER DEFINITIONS:

U - Value is a nondetected result as reported by the laboratory and should not be considered present.

APPENDIX A
Qualified Analytical Results

APPENDIX B

Results as Reported by the Laboratory



Report of Analysis

Client Sample ID: CEF-B182-SS-101-01
Lab Sample ID: F5645-1
Matrix: SO - Soil
Method: SW846 8310
Project: NAS Cecil Field

Date Sampled: 01/14/00
Date Received: 01/15/00
Percent Solids: 91.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LC8297.D	1	01/30/00	AMA	01/20/00	M:OP1690	M:GLC94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	72	ug/kg	
208-96-8	Acenaphthylene	ND	72	ug/kg	
120-12-7	Anthracene	ND	72	ug/kg	
56-55-3	Benzo (a) anthracene	ND	11	ug/kg	
50-32-8	Benzo (a) pyrene	ND	11	ug/kg	
205-99-2	Benzo (b) fluoranthene	ND	11	ug/kg	
191-24-2	Benzo (g,h,i) perylene	ND	11	ug/kg	
207-08-9	Benzo (k) fluoranthene	ND	11	ug/kg	
218-01-9	Chrysene	ND	11	ug/kg	
53-70-3	Dibenz(a,h)anthracene	ND	11	ug/kg	
206-44-0	Fluoranthene	11.3	11	ug/kg	
86-73-7	Fluorene	ND	72	ug/kg	
193-39-5	Indeno (1,2,3-cd) pyrene	ND	11	ug/kg	
90-12-0	1-Methylnaphthalene	ND	72	ug/kg	
91-57-6	2-Methylnaphthalene	ND	72	ug/kg	
91-20-3	Naphthalene	ND	72	ug/kg	
85-01-8	Phenanthrene	ND	72	ug/kg	
129-00-0	Pyrene	67.4	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		20-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method b
N = Indicates presumptive evidence of a compound

600302

APPENDIX C
Support Documentation

F5645

HOLDING TIME

02/07/00

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/KG	CEF-B182-SS-101-01	F5645-1	NORMAL	F5645	PAH	01/14/00	01/20/00	01/30/00	6	10	16

