

N60200.AR.002454
NAS CECIL FIELD, FL
5090.3a

SAMPLING AND ANALYSIS OUTLINE FOR BUILDING 880 BASE REALIGNMENT AND
CLOSURE NAS CECIL FIELD FL
6/1/2000
TETRA TECH NUS INC

Sampling and Analysis Outline
for
Building 880
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

June 2000

**SAMPLING AND ANALYSIS OUTLINE
FOR
BUILDING 880
BASE REALIGNMENT AND CLOSURE**

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

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT**

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

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

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

JUNE 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**

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE NO.</u>
ACRONYMS.....	iii
1.0 SITE DESCRIPTION.....	1-1
2.0 ENVIRONMENTAL BASELINE SURVEY COLOR DESIGNATION.....	2-1
3.0 RECOMMENDATIONS.....	3-1
REFERENCES.....	R-1

TABLES

<u>NUMBER</u>	<u>PAGE NO.</u>
3-1 Soil Sampling and Analysis.....	3-2

FIGURES

<u>NUMBER</u>	<u>PAGE NO.</u>
1-1 Proposed Sample Locations.....	1-2

ACRONYMS

ABB-ES	ABB Environmental Services
BRAC	Base Realignment and Closure
CLP	Contract Laboratory Program
CSR	Confirmatory Sampling Report
FDEP	Florida Department of Environmental Protection
HLA	Harding Lawson Associates
NAS	Naval Air Station
PAHs	Polycyclic aromatic hydrocarbons
SAO	Sample and Analysis Outline
SAR	Site Assessment Report
S&AR	Sampling and Analysis Report
TRPH	Total Recoverable Petroleum Hydrocarbons
TPH	Total Petroleum Hydrocarbons
TiNUS	Tetra Tech NUS, Inc.
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

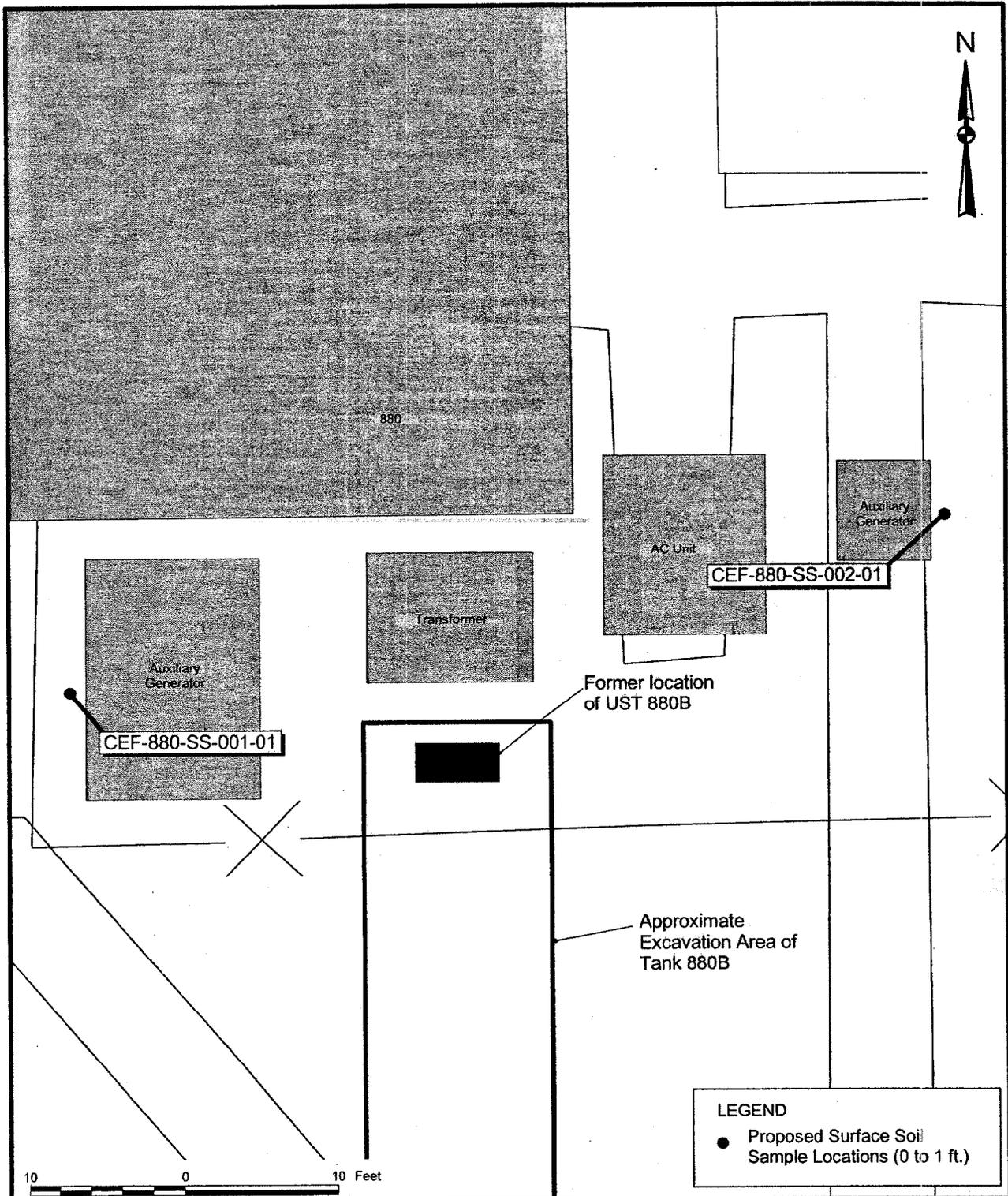
1.0 SITE DESCRIPTION

This Base Realignment and Closure (BRAC) Phase II Sampling and Analysis Outline (SAO) briefly describes a plan for additional sampling at Building 880 located at the Main Base, Naval Air Station (NAS) Cecil Field, Jacksonville, Florida. The area to be sampled is on the south side of Building 880 (Figure 1-1) and includes the former location of an underground storage tank (UST), the former location of an above ground storage tank, two auxiliary generators, a transformer, and an air conditioning unit.

In the 1996, four surface soil samples were collected by ABB-Environmental Services (ABB-ES) as part of the Phase II investigation of Building 880: two were near the fill port of UST Tank 880B, and one each was adjacent to each auxiliary generator located nearby, on either side of Tank 880B. The samples were only analyzed for total petroleum hydrocarbons (TPH) by Method 418.1. The results of all four samples were greater than 340 mg/kg. At that time, the Florida Department of Environmental Protection (FDEP) criteria was 10 mg/kg and the Conclusion in the 1996 Sampling and Analysis Report (S&AR) was "Procedures for UST investigations...should be followed for further investigations at this site" (ABB-ES, 1996).

However, in the sequence of tank investigations that followed (Confirmatory Sampling for Tank 880A and Tank 880B; Site Assessment for Tank 880B, and subsequent source removals), only the two samples at the fill port to Tank 880B were addressed. The other two 1996 samples next to each of the generators (12S00101 and 12S00401) were not delineated [ABB, 1997; Harding Lawson Associates (HLA), 1998a; HLA, 1998b; HLA 1999; CH2M Hill, 1999].

The sampling described in this SAO is to confirm the results of the 1996 sampling round at the two generator locations. Because analytical requirements of the FDEP petroleum program have changed since 1996, the samples will be analyzed by the FL-PRO method, and also for volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs).



DRAWN BY MJJ CHECKED BY COST/SCHEDULE-AREA SCALE AS NOTED	DATE 07Apr00 DATE DATE DATE		SAMPLE LOCATION MAP BUILDING 880 SAMPLING AND ANALYSIS OUTLINE NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 0039
				APPROVED BY APPROVED BY
			Figure 1-1	REV 0

P:\GIS\CECIL\bdg0880.apr 15May00 MJJ Layout1

2.0 ENVIRONMENTAL BASELINE SURVEY COLOR DESIGNATION

Building 880 was coded Yellow in the 1996 S&AR (ABB-ES, 1996). The 1999 SAR for Tank 880B recommended no further action for Tank 880B (HLA, 1999). The 1998 Confirmatory Sampling Report (CSR) for Tank 880A recommended no further action until the tank was taken out of service (HLA, 1998b). The follow up investigation of Tank 880A to determine if conditions have changed is scheduled for 2000.

3.0 RECOMMENDATIONS

Completion of the following program is recommended to assess the soil contamination at Building 880. To evaluate the soil, analysis for VOCs (Method 8260), PAHs (Method 8310), and total petroleum hydrocarbons (TRPH) (FL-PRO) is recommended.

Applicable sample collection techniques, quality assurance objectives, quality control requirements, and sample handling and shipping procedures are outlined in the Base-Wide Generic Work Plan [Tetra Tech NUS (TtNUS), 1998]. The proposed sampling locations are shown on Figure 1-1. The sample locations and analyses are summarized on Table 3-1.

Two soil samples will be collected from the 1996 sample locations 12S00101 and 12S00401 and analyzed for VOCs, PAHs, and TRPH. The sample locations on Figure 1-1 are based on the sample location plan from the 1996 S&AR. Samples are to be collected from an interval of 0 to 1 feet below ground surface. No duplicate samples will be collected.

Because there are discrepancies in the relative dimensions and orientations of the auxiliary generators, transformer and air conditioning unit between the S&AR figure and the base mapping, the field crew is to make measurements of the sizes and positions of these items relative to Building 880.

Sampling handling requirements, the bottleware required, preservation, and holding time requirements for the analysis proposed for this sampling event are as identified in the following table:

Analysis	Analytical Method	Bottleware	Preservation	Holding Time ⁽¹⁾
VOCs	SW-846 5035/8260B	Encore samplers	Cool to 4°C, Preservation by laboratory	48 hours to preservation; 14 days to analysis
PAHs	SW-846 8310	8-oz. glass jar	Cool to 4°C	14 days to extraction; 40 days to analysis
TRPH	FL-PRO	8-oz. glass jar	Cool to 4°C	14 days to analysis

1 Holding times are measured from the date/time of sample collection.

Analytical results will be provided on a 14-day turn around basis.

TABLE 3-1
SOIL SAMPLING AND ANALYSIS
BUILDING 880

Sample ID	Location	Analysis		
		VOCs	PAHs 8310	TRPH
CEF-880-SS-001-01	From location of sample 12S00101, on west side of west generator. (0 – 1' bgs)	X	X	X
CEF-880-SS-002-01	From location of sample 12S00401, on east side of east generator. (0 – 1' bgs)	X	X	X

VOCs – volatile organic compounds
PAHs – polycyclic aromatic hydrocarbons
TRPH – total recoverable petroleum hydrocarbons

REFERENCES

ABB-Environmental Services (ABB-ES), 1996. Sampling and Analysis Report, Building 880, NAS Cecil Field, Jacksonville, Florida, June.

ABB-ES, 1997 Confirmatory Sampling Report, Building 880, Tank 880B, NAS Cecil Field, Jacksonville, Florida, November.

Harding Lawson Associates (HLA), 1998a. Site Assessment Report, Building 880, Tank 880B, NAS Cecil Field, Jacksonville, Florida, September.

HLA, 1998b. Confirmatory Sampling Report, Building 880, Tank 880A, Revision 1.0, NAS Cecil Field, Jacksonville, Florida, April.

HLA, 1999. Site Assessment Report, Building 880, Tank 880B, Revision 1.0, NAS Cecil Field, Jacksonville, Florida, November.

CH2M Hill, 1999. Source Removal Report UST 880B, Revision 01, NAS Cecil Field, Jacksonville, Florida, October.

Tetra Tech NUS, Inc. (TtNUS), 1998. Base-Wide Generic Work Plan, Naval Air Station Cecil Field, Jacksonville, Florida. Pittsburgh, PA.