

N60200.AR.002392
NAS CECIL FIELD, FL
5090.3a

REMEDIAL INVESTIGATION WORK PLAN ADDENDUM FOR GROUNDWATER
MONITORING WELL INSTALLATION AT SITE 45 FACILITY 11 NAS CECIL FIELD FL
4/6/2000
TETRA TECH NUS INC

**Remedial Investigation Work Plan Addendum
Groundwater Monitoring Well Installation
Site 45, Facility 11
Naval Air Station Cecil Field
Jacksonville, Florida**

April 6, 2000

In addition to the well installation and sampling proposed in the Site-Specific Remedial Investigation (RI) Work Plan, installation and sampling of one additional well and resampling of five existing wells is proposed for PSC 45, Facility 11. As identified in Figure A, this additional well, CEF-P45-12S, will be located to the west of Building 12, approximately midway between proposed wells CEF-P45-06S and CEF-P45-09S

Prior to the installation of the new well, utilities must be located or cleared at the proposed location.

Well installation, development, and sampling activities and procedures described will be performed in accordance with the U.S. EPA Region 4 Environmental Investigation Standard Operating Procedures and Quality Assurance Manual (EISPOQAM) and the Sites 36 and 37 RI report, except that split-spoon samples will not be collected during well installation. The monitoring well will be screened from approximately 5 to 15 feet bgs with 10-foot long 0.010-inch slotted screen. Well construction materials will consist of certified-clean 2-inch inside diameter, flush-threaded, polyvinyl chloride (PVC) screen and riser. A registered land surveyor will survey the completed monitoring well. The groundwater will be sampled using low-flow techniques.

Personnel protection equipment and other waste trash (e.g. disposable trowels) will not be considered hazardous and will be disposed in a municipal landfill. Such trash will be collected in a plastic bag and disposed in a suitable trash receptacle.

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⁾
GROUNDWATER				
Lead, Vanadium	SW-846 6101B	1 liter HDPE (total) 1 liter HDPE (dissolved)	pH < 2 with HNO ₃	180 days to analysis
SOIL				
TCLP Metals	SW-846 1311/6010B/7470	8-oz. glass jar	Cool to 4°C	180 days to leach preparation; 180 days to analysis. Except for Hg: 28 days to leach preparation; 28 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.

The laboratory contracted to do this work is as follows:

ACCUTEST SOUTHEAST
4405 Vineland Road, Suite C-15
Orlando, Florida 32881
Attention: Linda Williams
(407) 425-5700
Fax: (407) 425-0707

As agreed upon by the BCT, the collection of rinsate and trip blanks has been eliminated at NAS Cecil Field. In addition, field blanks will not be collected during this sampling program because there will be no decontamination of sampling equipment. In accordance with these changes, the following table summarizes the frequency and type of field Quality Assurance/Quality Control (QA/QC) samples to be collected for this sampling program.

Type of Samples	Frequency	Samples to be Collected
Field Duplicate	1/10 sample/matrix	2
Lab MS/MSD	1/20 samples	1 ⁽¹⁾

⁽¹⁾ MS/MSD is a laboratory QA/QC requirement, separate sample not required, only additional volume.

As agreed upon by the BCT, formal data validation has been eliminated from the installation restoration program at NAS Cecil Field. However, the analytical data packages generated by the analytical laboratory will be reviewed by Tetra Tech NUS personnel to eliminate false positives and false negative results.

Table 1⁽¹⁾

**Remedial Investigation Work Plan Addendum
Groundwater Sampling and Analysis
Site 45, Facility 11**

Sample ID	Location	Analysis	
		V and Pb Total and dissolved ⁽²⁾	TCLP Metals
GROUNDWATER			
CEF-P45-GW-12S-01	West of Building 12, midway between CEF-P45-06S and CEF-P45-09S	X	
CEF-P45-GW-01S-02	Existing well CEF-P45-MW-01S	X	
CEF-P45-GW-02S-02	Existing well CEF-P45-MW-02S	X	
CEF-P45-GW-03S-02	Existing well CEF-P45-MW-03S	X	
CEF-P45-GW-04S-02	Existing well CEF-P45-MW-04S	X	
CEF-B07-GW-01Sa-02	Existing well CEF-007-01Sa	X	
SOIL			
CEF-P45-IDW-101 ⁽³⁾	Drill cuttings from CEF-P45-MW-10I		X
CEF-P45-IDW-102 ⁽³⁾	Drill cuttings from CEF-P45-MW-06S		X

(1) Also see Appendix C of Remedial Investigation Work Plan for PSCs for additional sampling and analysis at Site 45

(2) Filtered sample to be passed through 1-micron filter

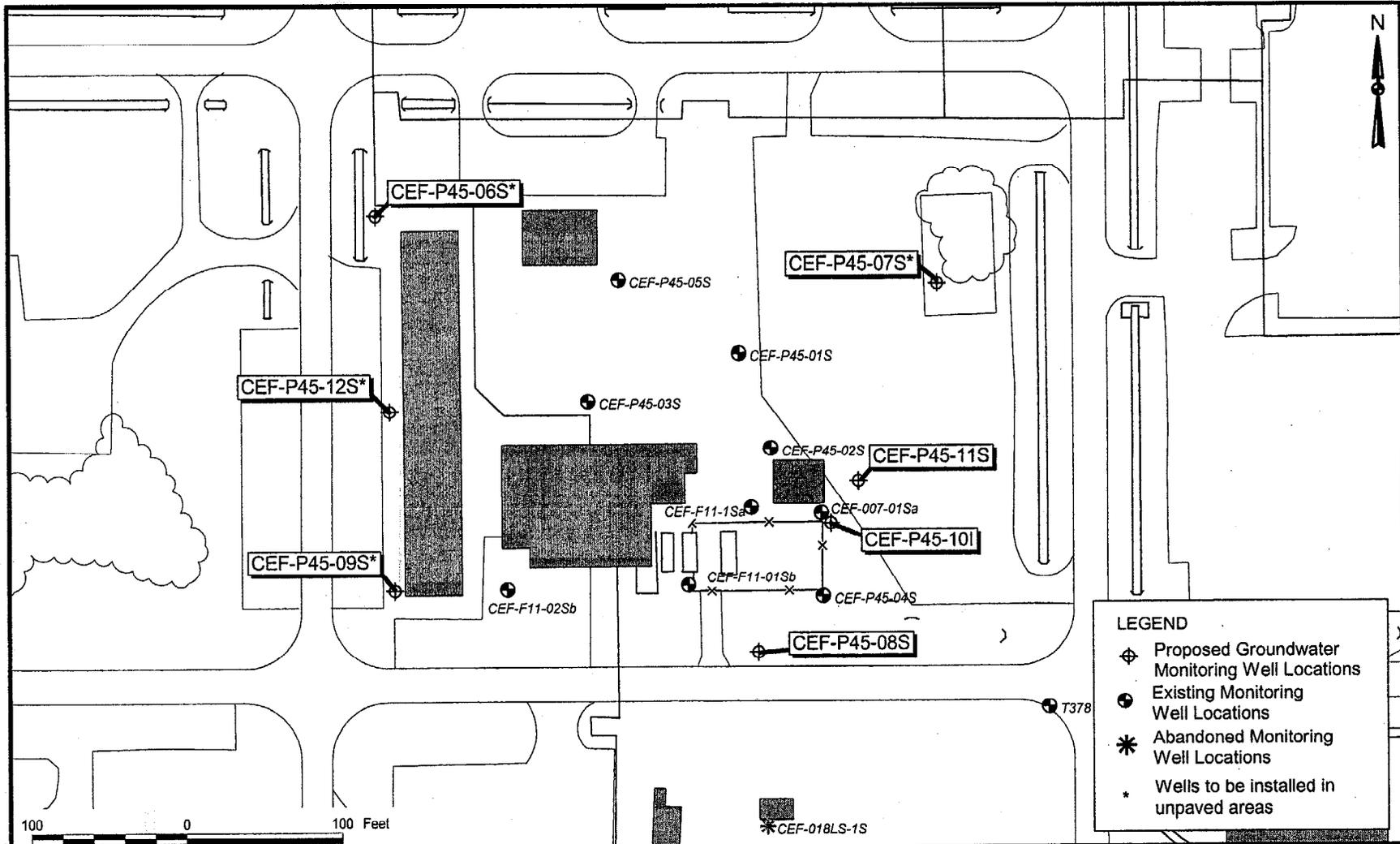
(3) No duplicate sample for IDW

V = Vanadium

Pb = Lead

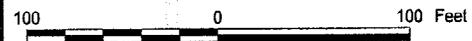
TCLP = Toxicity Characteristics Leaching Procedure

PAHs = Polynuclear aromatic hydrocarbons



LEGEND

- ◆ Proposed Groundwater Monitoring Well Locations
- Existing Monitoring Well Locations
- * Abandoned Monitoring Well Locations
- * Wells to be installed in unpaved areas



DRAWN BY	DATE
MJJ	130c199
CHECKED BY	DATE
COST/SCHEDULE-AREA	
SCALE	
AS NOTED	



PROPOSED MONITORING WELLS
 SITE 45, FACILITY 11
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA

CONTRACT NUMBER 0039	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO. FIGURE C-4	REV 0