

N60200.AR.003160
NAS CECIL FIELD, FL
5090.3a

REMEDIAL INVESTIGATION WORK PLAN ADDENDUM MONITORING WELL INSTALLATION
AND GROUND AND SURFACE WATER SAMPLING AND ANALYSIS FOR OPERABLE UNIT
9 (OU 9) SITE 57 BUILDING 824A DAY TANK 1 AREA NAS CECIL FIELD FL
12/4/2001
TETRA TECH NUS INC

**Remedial Investigation Work Plan Addendum
Monitoring Well Installation and Groundwater and Surface Water Sampling and Analysis
Operable Unit 9, Site 57
Building 824A/Day Tank 1 Area**

December 4, 2001

In addition to the well installation and sampling proposed in the Site-Specific Remedial Investigation (RI) Work Plan, installation and sampling of two additional wells and resampling of four existing wells is proposed for Operable Unit (OU) 9, Site 58. As identified in Figure 1, new well CEF-824A-211, will be located to the east of Building 846, near existing shallow well CEF-293-11, and new well CEF-824A-22S will be located south of CEF-824A-07S. The existing wells to be resampled include CEF-824A-01Sa, CEF-824A-11S, CEF-293-11, and CEF-824A-07S (see Figure 1). A round of synoptic water levels from wells sampled as part of the RI, including newly installed wells CEF-824A-211 and CEF-824A-22S, will be collected.

Groundwater elevation contours in the area of CEF-824A-07S and CEF-824A-03S suggest that groundwater may be infiltrating into the nearby storm sewer. To investigate this possible infiltration, a surface water sample will be collected at the associated runway outfall, designated Potential Source of Contamination (PSC) 39 Outfall No. 4 (see Figure 2). A surface water sample, CEF-824A-SW01, will be collected from the outfall effluent and analyzed for contaminants of concern at Site 57 including volatile organic compounds (VOCs), naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, and total recoverable petroleum hydrocarbons (TRPH). Previous sampling at this location did not detect VOCs, PAHs, or TRPH at this outfall. This sample will be collected to confirm these results. Surface water sample bottles will be directly filled from water at the outfall.

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 and a bentonite seal will be used. Prior to the installation of new wells, utilities must be located or cleared at the proposed location.

CEF-824A-211 will be an intermediate well screened from approximately 35 to 40 feet below ground surface (bgs), and CEF-824A-22S will be a shallow well screened from 5 to 15 feet bgs. Well construction materials will consist of certified-clean 2-inch inside diameter, flush-threaded, polyvinyl chloride (PVC) 0.010-inch slotted screen and riser. A registered land surveyor will survey the completed monitoring wells. Groundwater samples from new and existing wells will be collected 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:

Parameter	Analytical Method	Bottleware	Preservation	Holding Time ⁽¹⁾
Groundwater				
TCL VOCs	SW-846 8260B	2 40-ml glass; Teflon-lined septum	Cool to 4 ^o C pH < 2 with HCl	14 days to analysis
PAHs	SW-846 8310	1 1-liter amber glass; Teflon-lined cap	Cool to 4 ^o C	7 days to extraction; 40 days to analysis
TRPH	FL-PRO	40 ml HDPE	Cool to 4 ^o C	14 days to analysis
Surface Water				
TCL VOCs	SW-846 8260B	2 40-ml glass; Teflon-lined septum	Cool to 4 ^o C pH < 2 with HCl	14 days to analysis
Selected PAHs	SW-846 8310	1 1-liter amber glass; Teflon-lined cap	Cool to 4 ^o C	7 days to extraction; 40 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	1 GW / 1 SW
Lab MS/MSD	1/20 samples	1 GW / 1 SW ⁽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

**Remedial Investigation Work Plan Addendum
 Sampling and Analysis
 Operable Unit 9, Site 57
 Building 824A/Day Tank 1 Area**

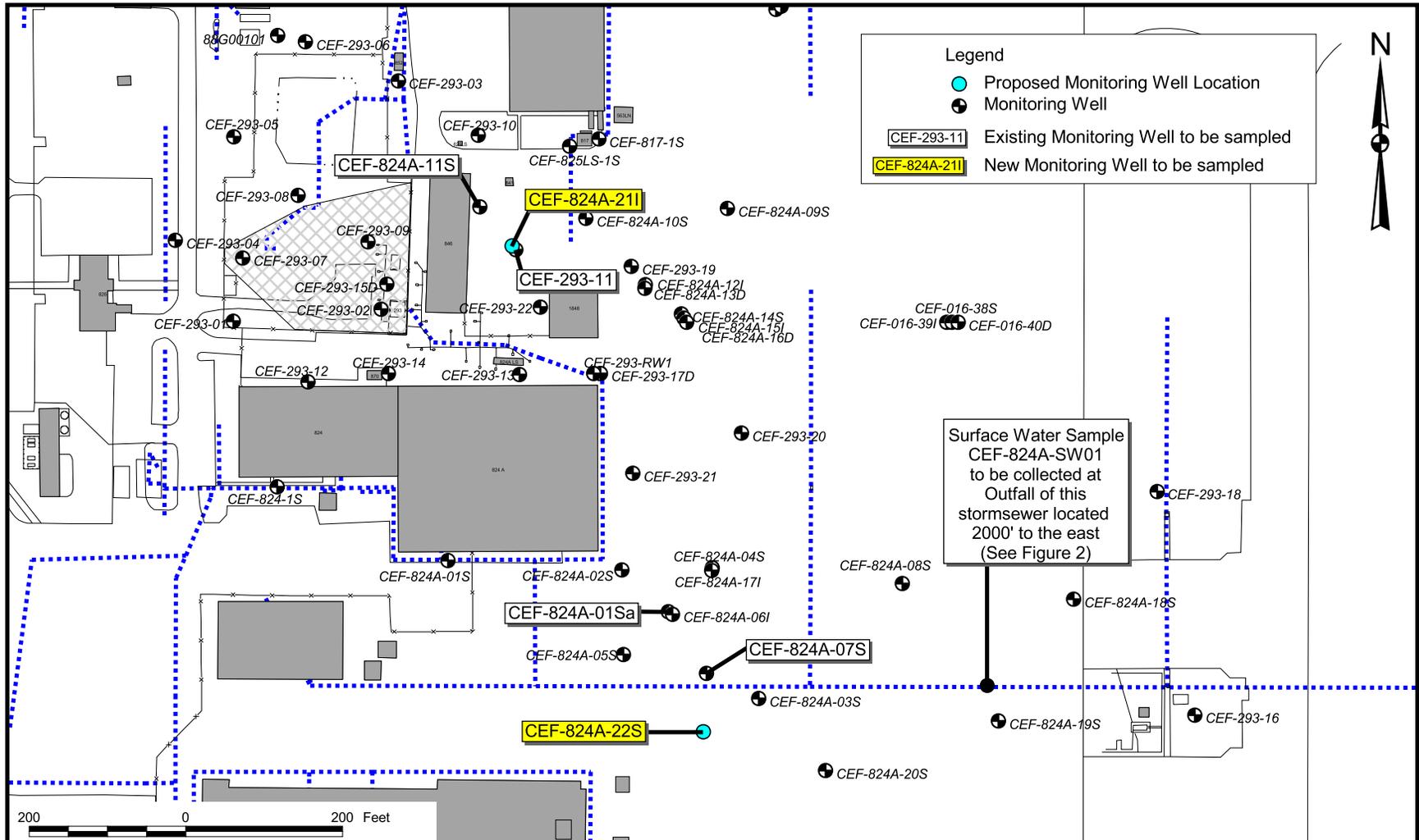
Sample ID	Location	Analysis		
		VOCs	PAHs	TRPH
Groundwater				
CEF-824A-GW-211-01	East of Building 846, near existing well CEF-293-11	X	X	X
CEF-824A-GW-22S-01	South of existing well CEF-824A-07S	X	X	X
CEF-824A-GW-01Sa-06	Existing well CEF-824A-01Sa	X	X	X
CEF-824A-GW-11S-03	Existing well CEF-824A-11S	X	X	X
CEF-293-GW-11-A4	Existing well CEF-293-11	X	X	X
Surface Water				
CEF-824A-SW01	From PSC 39 Outfall No.4	X	X*	X

VOC = Volatile organic compounds.

PAHs = Polynuclear aromatic hydrocarbons.

TRPH = Total Recoverable Petroleum Hydrocarbons.

* = Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene only.

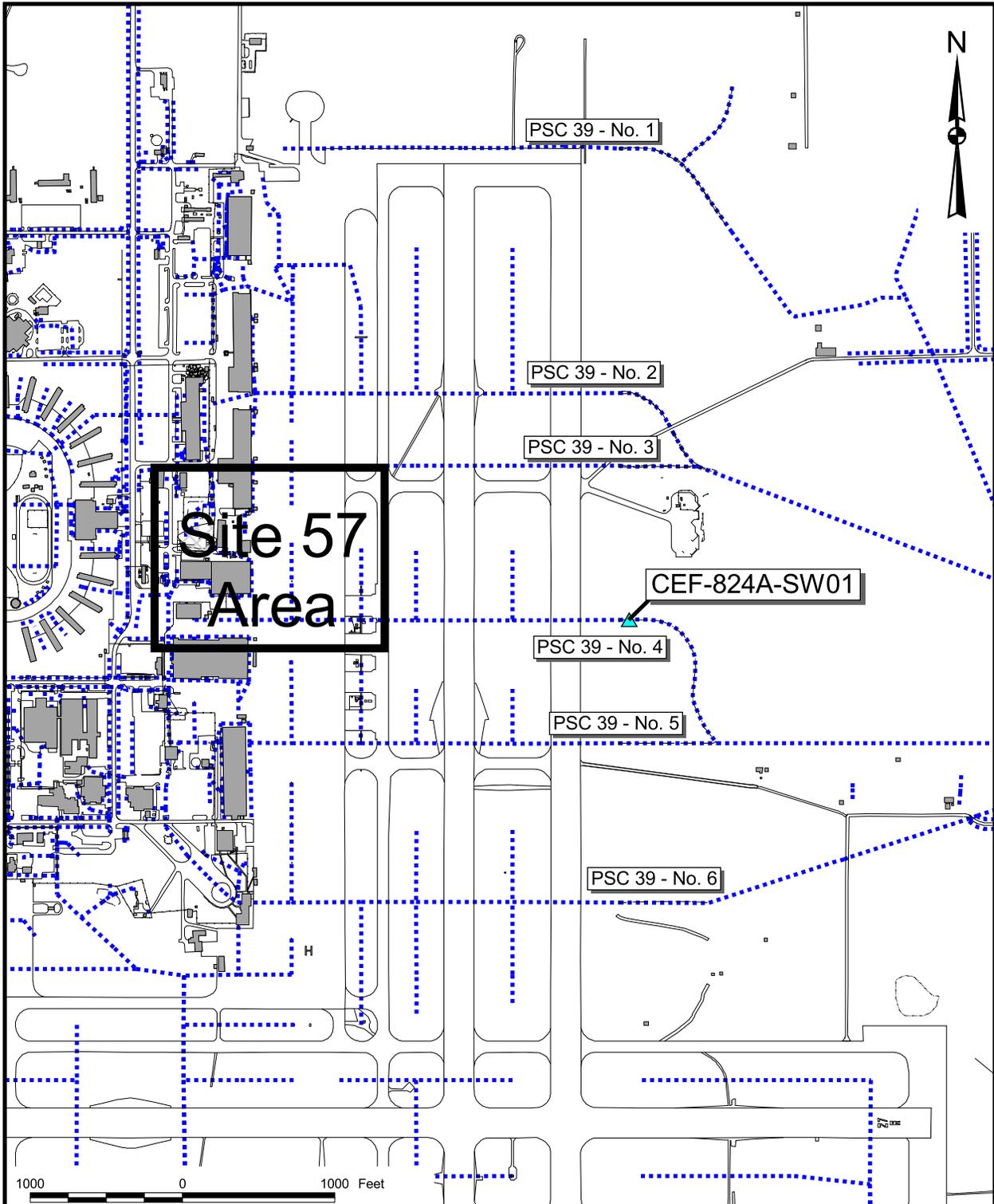


DRAWN BY _____	DATE _____
CHECKED BY _____	DATE _____
COST/SCHEDULE-AREA _____	
SCALE AS NOTED	



PROPOSED SAMPLE LOCATIONS
 RI WORK PLAN ADDENDUM
 OU 9, SITE-57 - BUILDING 824A / DAY TANK 1 AREA
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA

CONTRACT NUMBER 0039	
APPROVED BY _____	DATE _____
APPROVED BY _____	DATE _____
DRAWING NO. FIGURE 1	REV 0



DRAWN BY	DATE		PROPOSED SURFACE WATER SAMPLE LOCATION RI WORK PLAN ADDENDUM OU 9, SITE-57 - BUILDING 824A / DAY TANK 1 AREA NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA		CONTRACT NUMBER 0039	
CHECKED BY	DATE		APPROVED BY	DATE	APPROVED BY	DATE
COST/SCHEDULE-AREA						
SCALE AS NOTED					DRAWING NO. FIGURE 2	REV 0