

N60200.AR.009588  
NAS CECIL FIELD  
5090.3a

SAMPLING AND ANALYSIS WORK PLAN POTENTIAL SOURCE OF CONTAMINATION 39  
FLIGHTLINE OUTFALLS NAS CECIL FIELD FL  
5/13/1999  
TETRA TECH

CE-D35

**Sampling and Analysis Work Plan  
PSC 39, Flightline Outfalls  
Naval Air Station Cecil Field  
Jacksonville, Florida**

**May 13, 1999**

Sampling and analysis of sediment and surface water is proposed for PSC 39 as identified in Figure A. Sampling and analysis will be conducted to delineate the contamination identified in the previous sampling activities. The previous sampling activities detected inorganics (cadmium, chromium, copper, lead, and thallium), semivolatile organic compounds (phthalates and polycyclic aromatic hydrocarbons), pesticides (DDD, DDE, DDT, and endrin), and polychlorinated biphenyls (PCBs) in the sediment and surface water at several of the outfalls. The inorganics listed above exceeded the Florida Department of Environmental Protection (FDEP) cleanup criteria or the NAS Cecil Field Inorganic Background Data Set as shown in Figure B. The semivolatile organics, pesticides, and PCBs listed above exceeded the FDEP cleanup criteria or had elevated laboratory detection limits that exceeded the FDEP cleanup criteria as shown in Figure B.

Because of the proximity to active runways and taxiways, this sampling must be coordinated with NAS Cecil Field Air Ops. Ramp Safety requirements must be followed. At least one field crew member shall have ramp training.

Samples of sediment and surface water will be collected at the outfalls along the eastern and southern sides of the flightline. The samples will be analyzed for inorganics, semivolatile organic compounds, pesticides, and PCBs as specified in the attached table. This sampling strategy is as identified during the February 11, 1999 Base Realignment and Closure Team (BCT) meeting (Minutes Ref. No. 821).

A total of nine (9) sediment and 12 surface water samples will be collected during this sampling event from the approximate locations identified on Figure A and summarized in Table 1. The samples to be collected are described below.

- Sample the water discharging from the outfall and surface water and sediment approximately 50 feet downstream of the outfall near the previous sample 85D00101.
- Sample the water discharging from the outfall and surface water approximately 50 feet downstream of the outfall near the previous sample 85D00201.
- Sample the water discharging from the outfall and surface water and sediment approximately 50 feet downstream of the outfall near the previous sample 85D00301.
- Sample the water discharging from the outfall and surface water and sediment approximately 50 feet downstream of the outfall near the previous sample 85D00401.
- Sample the water discharging from the outfall and surface water and sediment approximately 50 feet downstream of the outfall near the previous sample 85D00501.
- Sample the water discharging from the outfall and surface water and sediment approximately 50 feet downstream of the previous sample 85D00601.
- Sample the sediment approximately 50 feet downstream of the the previous sample 85D00901.
- Sample the sediment approximately 50 feet downstream of the outfall near the previous sample 85D01101.

- Sample the sediment approximately 50 feet downstream of the outfall near the previous sample 85D01301.
- Sample the sediment approximately 50 feet downstream of the outfall near the previous sample 85D01401.

The sampling activities and procedures described in this Work Plan will be performed in accordance with the U. S. EPA Region 4 Environmental Investigation Standard Operating Procedures and Quality Assurance Manual (EISOPQAM) and the Base-Wide Generic Work Plan for Naval Air Station (NAS) Cecil Field. Specifically, the Base-Wide Generic Work Plan includes procedures for management of investigation-derived wastes in Volume I and standard operating procedures in the Project Operations Plan in Volume II.

The surface water and sediment samples will be collected as grab samples. The surface water sample collected from the outfall discharge will be collected prior to exiting the pipe. The sampling equipment used will be disposable or equipment that can be easily decontaminated. Since disposable equipment is preferable for this sampling activity, decontamination of sampling equipment will not be required.

The location of the proposed samples will be located by a registered surveyor in the field and marked with a wooden stake labeled with the sample identification. The sampling crew will work with the survey crew to establish the best procedures to limit the time the wooden stakes or pin flags are in the area. The sample crew will collect the sample from the location identified.

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. Removed sample materials in excess of sampling volume requirements will be placed back in the area where the sample was obtained.

Sample 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:

<b>Analysis</b>	<b>Analytical Method</b>	<b>Bottleware</b>	<b>Preservation</b>	<b>Holding Time<sup>(1)</sup></b>
<b>SEDIMENT</b>				
TAL Inorganics	SW-846 6010B	8-oz. glass jar	Cool to 4°C	180 days to analysis, except Hg which is 28 days to analysis
TCL Semivolatile	SW-846 8270C	8-oz. glass jar	Cool to 4°C	14 days to extraction; 40 days to analysis
Pesticides	SW-846 8081A	2 8-oz. glass jar	Cool to 4°C	14 days to extraction; 40 days to analysis
PCBs	SW-846 8082	8-oz. glass jar	Cool to 4°C	14 days to extraction; 40 days to analysis

Analysis	Analytical Method	Bottleware	Preservation	Holding Time <sup>(1)</sup>
<b>SURFACE WATER</b>				
TAL Inorganics	SW-846 6010B	1 liter glass or polyethylene	pH<2 with HNO <sub>3</sub>	180 days to analysis, except Hg which is 28 days to analysis
TCL Semivolatile	SW-846 8270C	4 1-liter amber glass; Teflon-lined cap	Cool to 4°C	7 days to extraction; 40 days to analysis
Pesticides	SW-846 8081A	4 1-liter amber glass; Teflon-lined cap	Cool to 4°C	7 days to extraction; 40 days to analysis
PCBs	SW-846 8082	4 1-liter amber glass; Teflon-lined cap	Cool to 4°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: Susan Gaudios  
(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 minimal 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.

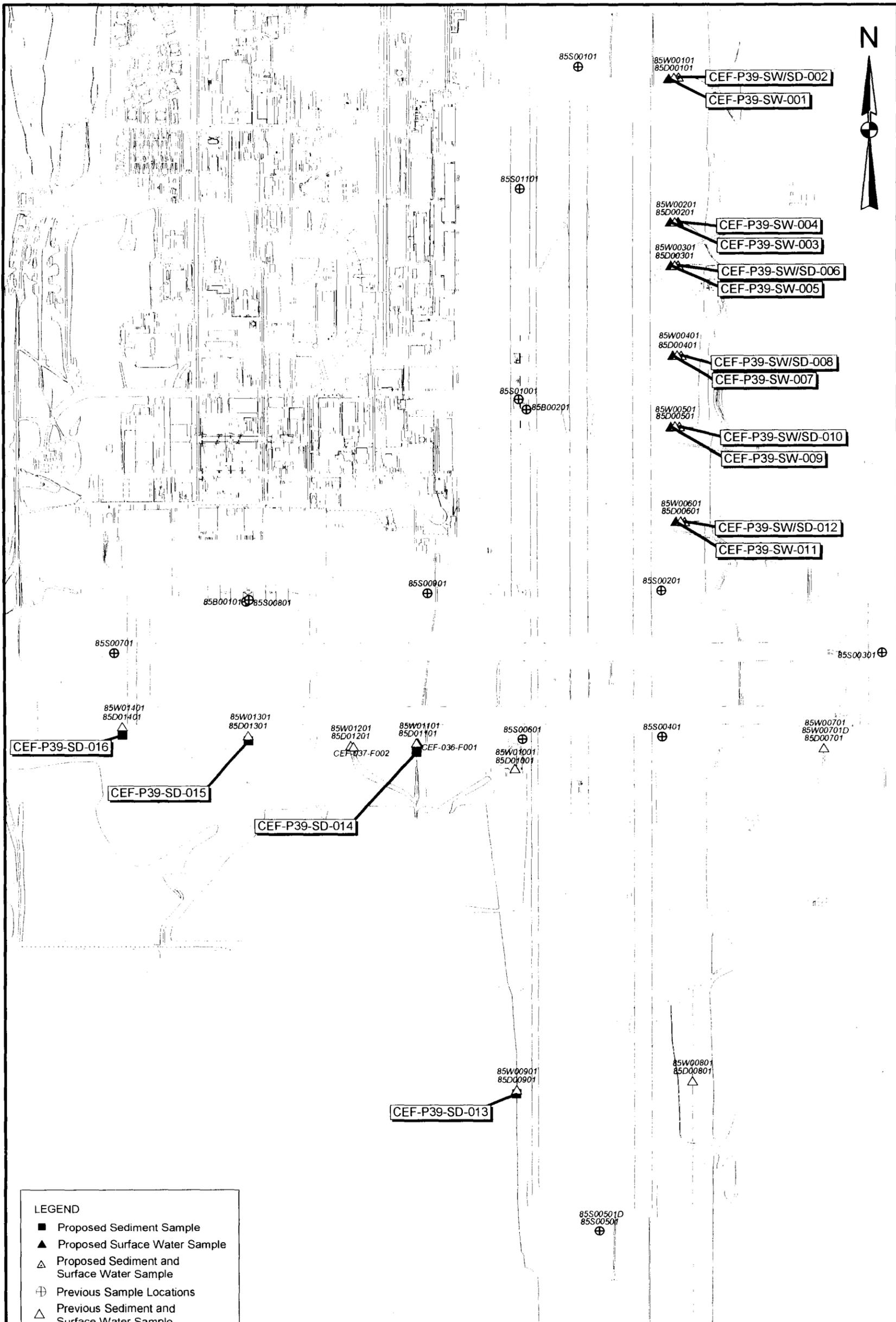
Type of Samples	Frequency	Samples to be Collected
Field Duplicate	1/10 sample/matrix	1 sediment, 1 surface water
Lab MS/MSD	1/20 samples/matrix	1 sediment, 1 surface water <sup>(1)</sup>

1 MS/MSD is a Laboratory QA/QC requirement, separate sample not required, only additional volume. Surface water sample requires twice the sample volume identified for MS/MSD analysis

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  
Sampling and Analysis Work Plan  
PSC 39, Flightline Outfalls**

Sample ID CEF-P39-	Location		Analysis			
			TAL	TCL SVOC	Pesticides	PCBs
SW-001, SW-002, SD-002	Near previous sample 85D00101	SW-001 discharging water at outfall, SW-002 and SD-002 approximately 50' downstream	X	X	X	X
SW-003, SW-004	Near previous sample 85D00201	SW-003 discharging water at outfall, SW-004 and approximately 50' downstream	X	X	X	X
SW-005, SW-006, SD-006	Near previous sample 85D00301	SW-005 discharging water at outfall, SW-006 and SD-006 approximately 50' downstream	X	X	X	X
SW-007, SW-008, SD-008	Near previous sample 85D00401	SW-007 discharging water at outfall, SW-008 and SD-008 approximately 50' downstream	X	X	X	X
SW-009, SW-010, SD-010	Near previous sample 85D00501	SW-009 discharging water at outfall, SW-010 and SD-010 approximately 50' downstream	X	X	X	X
SW-011, SW-012, SD-012	Near previous sample 85D00601	SW-011 discharging water at outfall, SW-012 and SD-012 approximately 50' downstream	X	X	X	X
SD-013	Near previous sample 85D00901	SD-013 approximately 50' downstream of previous sample	X	X	X	X
SD-014	Near previous sample 85D01101	SD-014 approximately 50' downstream of previous sample	X	X	X	X
SD-015	Near previous sample 85D01301	SD-015 approximately 50' downstream of previous sample	X	X	X	X
SD-016	Near previous sample 85D01401	SD-016 approximately 50' downstream of previous sample	X	X	X	X



**LEGEND**

- Proposed Sediment Sample
- ▲ Proposed Surface Water Sample
- △ Proposed Sediment and Surface Water Sample
- ⊕ Previous Sample Locations
- △ Previous Sediment and Surface Water Sample
- ▭ Buildings

DRAWN BY YLI	DATE 07/04/99
CHECKED BY RD	DATE 1/13/99
COST/SCHEDULE/AREA	
SCALE AS NOTED	



**PROPOSED SAMPLE LOCATION**  
 PSC 39, MB-18 FLIGHTLINE OUTFALLS  
 NAVAL AIR STATION CECIL FIELD  
 JACKSONVILLE, FLORIDA

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



