

# APPENDIX L

Field Change Reports



**Appendix L**  
**Field Change Report**  
**U.S. Army Environmental Command**  
**Per- and Polyfluoroalkyl Substances Preliminary Assessment/Site Inspection**  
**Aberdeen Proving Ground, Maryland**

Installation Name:	Aberdeen Proving Ground, MD	Event Date:	03 March 2021
Contract No:	W912DR-18-D-0004	Prepared By:	Matthew Blower
Project/Task No:	30001996.3BX50	Applicable Document:	Quality Assurance Project Plan Addendum: Worksheet #18 and associated figure(s)
Field Change Report No:	FCR-APG-01		

**1. Description**

One co-located surface soil and grab groundwater sample [APG-BLDG-E5005-1-GW/APG-BLDG-E5005-1-SO-(0-2)] was moved from the center of the area of potential interest (AOPI) parcel to the downgradient edge of the AOPI parcel. Additionally, two soil samples APG-BLDG-E5005-2-SO-(0-2) and APG-BLDG-E5005-3-SO-(0-2) were added to the scope of work and positioned along the boundaries of the former Building E5005 outline.

**2. Reason for Change**

During the Preliminary Assessment conducted in 2018, the Building E5005 – Former Edgewood Training Area AOPI was cleared entirely of vegetation and trees. While conducting utility mark-outs, hundreds of planted trees were observed to have been planted throughout the area. It was determined that rig access would not be possible at the identified location. Following discussions with the Aberdeen Proving Ground (APG) Assistant Fire Chief (interviewed about the area in 2018) about aqueous film-forming foam release in the area, a new sample plan was developed. The sample ID APG-BLDG-E5005-1-GW/APG-BLDG-E5005-1-SO-(0-2) was moved approximately 300 feet to the southeast and placed along the side of Fleming Road. The Assistant Fire Chief also stated that Building E5005 was used to stock foam for the APG Fire Department. Two soil samples APG-BLDG-E5005-2-SO-(0-2) and APG-BLDG-E5005-3-SO-(0-2) were added to the scope of work and positioned along the boundaries of the former Building E5005 outline.

**3. Impact on Present and Completed Work**

No anticipated impact on the overall scope of project work.

**4. Remarks**

None.

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**Per- and Polyfluoroalkyl Substances Preliminary Assessment/Site Inspection**  
**Aberdeen Proving Ground, Maryland**

Installation Name:	Aberdeen Proving Ground, Maryland	Event Date:	September to October 2021
Contract No:	W912DR-18-D-0004	Prepared By:	Matthew Blower
Project/Task No:	30001996.3BX50	Applicable Document:	Quality Assurance Project Plan Addendum: Worksheet #18 and associated figure(s)
Field Change Report No:	FCR-APG-02		

**1. Description**

A remobilization is planned to collect grab groundwater and soil samples from six additional areas of potential interest (AOPIs) at the Aberdeen and Edgewood Areas of Aberdeen Proving Ground (APG): Biosolid Application Field (BAF) ATC-1, ATC-2, S-1A, S-2, E-3 and E-4. As part of this remobilization, groundwater samples will also be collected from two existing monitoring wells located hydraulically downgradient of the Fords Farm AOPI. The additional sampling is planned to better determine an appropriate path forward (e.g., no action or further study in a remedial investigation). See **Reason for Change** section for rationale for sampling. In total, six surface soil samples (0 to 2 feet below ground surface), six grab-groundwater samples collected via direct-push technology methods, and two groundwater samples from existing monitoring wells will be collected and analyzed for perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and perfluorobutanesulfonic acid (PFBS) at the locations shown on **Figures 1 through 7**. No permanent wells will be installed as part of this mobilization.

**2. Reason for Change**

The initial site inspection (SI) mobilization completed in April 2021 included sampling for groundwater and soil at five other BAF AOPIs (A-1, B, D-1, E-1, and S-6) where historical information indicated biosolids generated at the Aberdeen and Edgewood Wastewater Treatment Plants suspected to contain PFAS-containing materials were applied. Following review of the SI data collected, exceedances of PFOS and PFOA in concentrations greater than the Office of the Secretary of Defense risk screening levels were observed in groundwater at three of the five BAFs

sampled (BAF A-1, B, and D). BAFs A-1, B, and D are located hydraulically downgradient and side-gradient of multiple AOPIs that exhibited Office of the Secretary of Defense risk screening level exceedances of PFOS and PFOA in groundwater during the SI. To properly assess the presence/absence of PFOS, PFOA, and PFBS in BAFs across APG and rule out potential PFOS, PFOA, and PFBS contributions from neighboring AOPIs, soil and grab-groundwater sampling is being proposed at BAFs isolated from nearby AOPIs identified during the Preliminary Assessment (ATC-1, ATC-2, S-1A, S-2, E-3, and E-4).

Additionally, during the initial SI mobilization, the Fords Farm AOPI was inaccessible to field staff due to site-specific radiological concerns. In order to achieve the SI objectives as detailed in the Quality Assurance Project Plan Addendum, two shallow monitoring wells located outside of the area with radiological concerns and hydraulically downgradient have been identified for sampling. All sampling discussed herein will be completed during the same mobilization under coordination with the Army.

Please see the attached **Table 1** for sample identifications and quality assurance/quality control sample counts.

**Table 1**

Site Location	Medium	Sample ID	Depth Interval (Approximate)	Sample Method	Sample Type	Number of Samples	Analytes
Fords Farm	Groundwater	APG-FF2-MMDDYY	TBD (Middle of Saturated Screen Interval)	Low Flow	N	1	PFAS, field parameters
	Groundwater	APG-FF3-GW-MMDDYY	TBD (Middle of Saturated Screen Interval)	Low Flow	N	1	PFAS, field parameters
Biosolid Application Field ATC-1	Groundwater	APG-BAF-ATC1-1-GW-MMDDYY	First Encountered Groundwater	Grab	N	1	PFAS, field parameters
	Soil	APG-BAF-ATC1-1-SO-(0-2)-MMDDYY	0 to 2 feet	Hand Auger	N, FD, MS, MSD	4	PFAS

Site Location	Medium	Sample ID	Depth Interval (Approximate)	Sample Method	Sample Type	Number of Samples	Analytes
Biosolid Application Field ATC-2	Groundwater	APG-BAF-ATC2-1-GW-MMDDYY	First Encountered Groundwater	Grab	N	1	PFAS, field parameters
	Soil	APG-BAF-ATC2-1-SO-(0-2)-MMDDYY	0 to 2 feet	Hand Auger	N	1	PFAS
Biosolid Application Field S1-A	Groundwater	APG-BAF-S1A-1-GW-MMDDYY	First Encountered Groundwater	Grab	N, FD, MS, MSD	4	PFAS, field parameters
	Soil	APG-BAF-S1A-1-SO-(0-2)-MMDDYY	0 to 2 feet	Hand Auger	N	1	PFAS
Biosolid Application Field S-2	Groundwater	APG-BAF-S2-1-GW-MMDDYY	First Encountered Groundwater	Grab	N	1	PFAS, field parameters
	Soil	APG-BAF-S2-1-SO-(0-2)-MMDDYY	0 to 2 feet	Hand Auger	N	1	PFAS
Biosolid Application Field E-3	Groundwater	APG-BAF-E3-1-GW-MMDDYY	First Encountered Groundwater	Grab	N	1	PFAS, field parameters
	Soil	APG-BAF-E3-1-SO-(0-2)-MMDDYY	0 to 2 feet	Hand Auger	N	1	PFAS
Biosolid Application Field E-4	Groundwater	APG-BAF-E4-1-GW-MMDDYY	First Encountered Groundwater	Grab	N	1	PFAS, field parameters
	Soil	APG-BAF-E4-1-SO-(0-2)-MMDDYY	0 to 2 feet	Hand Auger	N	1	PFAS
Equipment Blanks	QA/QC	APG-EB-04-MMDDYY	(Hand Auger)	Rinse-grab Blank	EB	1	PFAS
		APG-EB-05-MMDDYY	(Tubing/Pump)	Rinse-grab Blank	EB	1	PFAS
Field Blank		APG-FB-08-MMDDYY	N/A	N/A	FB	1	PFAS

Site Location	Medium	Sample ID	Depth Interval (Approximate)	Sample Method	Sample Type	Number of Samples	Analytes
Source Blanks	QA/QC	APG-SB-01-MMDDYY	Decontamination Water	N/A	SB	1	PFAS

Notes:

ID = identification

EB = equipment blank

FB = field blank

FD = field duplicate

MS = matrix spike

MSD = matrix spike duplicate

N = normal (parent sample)

N/A = not available

PFAS = per- and polyfluoroalkyl substances

QA = quality assurance

QC = quality control

SB = source blank

TBD = to be determined

### **3. Impact on Present and Completed Work**

Due to the need for a supplemental field mobilization, the Draft Preliminary Assessment/SI Report submission will be delayed in order to include data results and AOPI recommendations for all AOPIs at APG.

### **4. Remarks**

The Project/Data Quality Objectives (Worksheet #11), Sampling Design and Rationale (Worksheet #17), sampling methods within Worksheet #18, Field QC Summary (Worksheet #20), Field Standard Operating Procedures (Worksheet #21), and Field Equipment Calibration, Maintenance, Testing, and Inspection (Worksheet #22) as outlined in the March 2021 APG Final Quality Assurance Project Plan Addendum remain in place for the contents laid out in this addendum.

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**Aberdeen Proving Ground, Maryland**

Installation Name:	Aberdeen Proving Ground, Maryland	Event Date:	09 March 2021
Contract No:	W912DR-18-D-0004	Prepared By:	Matthew Blower
Project/Task No:	30001996.3BX50	Applicable Document:	Quality Assurance Project Plan Addendum: Worksheet #18 and associated figure(s)
Field Change Report No:	FCR-APG-03		

**1. Description**

Three monitoring wells WB-MW-11A, FTA-PZ-11, and WB-MW-14B were identified downgradient of the Phillips Army Airfield Runways area of potential interest and selected for sampling of perfluorooctane sulfonate, perfluorooctanoic acid (PFOA) and perfluorobutanesulfonic acid. WB-MW-11A and WB-MW-14A were sampled; however, no groundwater sample was collected from FTA-PZ-11.

**2. Reason for Change**

It was determined that FTA-PZ-11 had been abandoned when the well bottom was tagged at approximately 11.0 feet below ground surface, approximately 17.5 feet shallower than the anticipated total depth of 28.5 feet below ground surface.

**3. Impact on Present and Completed Work**

No anticipated impact on the overall scope of project work. Two additional samples were collected to inform on the presence or absence of perfluorooctane sulfonate, PFOA and perfluorobutanesulfonic acid in groundwater downgradient of the Phillips Army Airfield Runways area of potential interest, with one groundwater sample collected from WB-MW-14A exhibiting PFOA at a concentration (43 nanograms per liter) greater than its respective Office of the Secretary of Defense risk screening level (40 nanograms per liter).

**4. Remarks**

None.