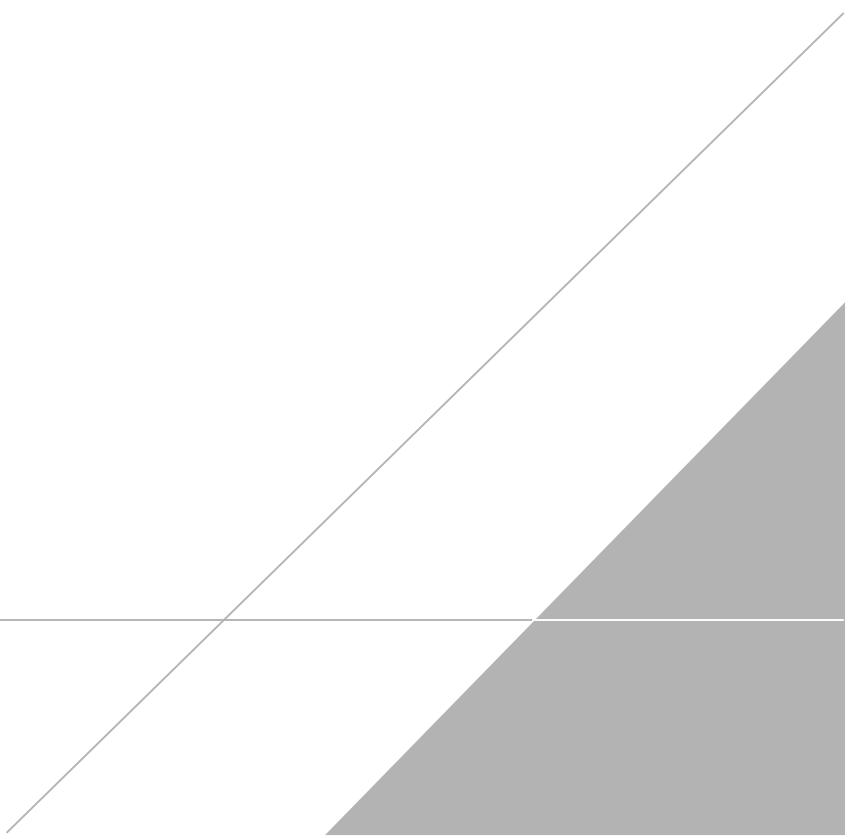


APPENDIX P

Site Inspection Laboratory Analytical Results



			Sample ID	APG-EB-01-030321		APG-EB-02-030421		APG-EB-03-030921		APG-FB-01-030321		APG-FB-02-030421		APG-FB-05-031021		APG-FB-03-031221		APG-FB-07-031221	
			Sample Date	03/03/2021		03/04/2021		03/09/2021		03/03/2021		03/04/2021		03/10/2021		03/12/2021		03/12/2021	
			Sample Type	Equipment Blank		Equipment Blank		Equipment Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
			Equipment Type	Peristaltic Pump		Hand Auger		Bladder Pump		N/A									
Analyte	CAS	Units		Result	Qual														
PFAS																			
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	ng/L		4.3	U	4.2	U	4.2	U	4.3	U	4.4	U	4.3	U	4.4	U	4.4	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	ng/L		2.6	U	2.5	U	2.5	U	2.6	U								
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	ng/L		2.6	U	2.5	U	2.5	U	2.6	U								
N-Methylperfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluorobutanoic acid (PFBA)	375-22-4	ng/L		4.3	U	4.2	U	4.2	U	4.3	U	4.4	U	4.3	U	4.4	U	4.4	U
Perfluorodecanoic acid (PFDA)	335-76-2	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluorododecanoic acid (PFDaO)	307-55-1	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluorohexanoic acid (PFHxA)	307-24-4	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluorononanoic acid (PFNA)	375-95-1	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluooctane sulfonic acid (PFOS)	1763-23-1	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluorooctanoic acid (PFOA)	335-67-1	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluoropentanoic acid (PFPeA)	2706-90-3	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluorotetradecanoic acid (PFTeA)	376-06-7	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U
Perfluoroundecanoic acid (PFUdA)	2058-94-8	ng/L		1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U	1.8	U	1.8	U

Notes:

1. **Dashed** values indicate the result was detected greater than the limit of detection.
2. All laboratory reported results in nanograms per gram (ng/g) were converted to milligrams per kilogram (mg/kg).

Acronyms/Abbreviations:

-- = not applicable
 % = percent
 AOPI = Area of Potential Interest
 APG = Aberdeen Proving Ground
 CAS = Chemical Abstracts Service number
 FD = field duplicate sample
 ID = identification
 mg/kg = milligrams per kilogram (parts per million)
 N = primary sample
 PFAS = per- and polyfluoroalkyl substances
 Qual = qualifier
 SI = Site Inspection
 USAEC = U.S. Army Environmental Command

Qualifiers:

U = The analyte was analyzed for but the result was not detected above the limit of quantitation

		APG-FB-04-031521	APG-FB-06-031721	APG-SB-01-030321	APG-SB-2-042221
	Sa	03/15/2021	03/17/2021	03/03/2021	04/22/2021
	Sa	Field Blank	Field Blank	Source Blank	Source Blank
	Equip	N/A	N/A	N/A	N/A
Analyte	CAS	Result	Qual	Result	Qual
PFAS					
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	4.4	U	4.5	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	2.6	U	2.7	U
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	2.6	U	2.7	U
N-Methylperfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	1.8	U	1.8	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	1.8	U	1.8	U
Perfluorobutanoic acid (PFBA)	375-22-4	4.4	U	4.5	U
Perfluorodecanoic acid (PFDA)	335-76-2	1.8	U	1.8	U
Perfluorododecanoic acid (PFDa)	307-55-1	1.8	U	1.8	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	1.8	U	1.8	U
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	1.8	U	1.8	U
Perfluorohexanoic acid (PFHxA)	307-24-4	1.8	U	1.8	U
Perfluorononanoic acid (PFNA)	375-95-1	1.8	U	1.8	U
Perfluooctane sulfonic acid (PFOS)	1763-23-1	1.8	U	1.8	U
Perfluorooctanoic acid (PFOA)	335-67-1	1.8	U	1.8	U
Perfluoropentanoic acid (PPeA)	2706-90-3	1.8	U	1.8	U
Perfluorotetradecanoic acid (PFTeA)	376-06-7	1.8	U	1.8	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	1.8	U	1.8	U
Perfluoroundecanoic acid (PFUdA)	2058-94-8	1.8	U	1.8	U

Notes:

1. **Dashed** values indicate the result was detected greater than the limit of detection.

2. All laboratory reported results in nanograms per gram (ng/g) were converted to milligrams per kilogram (mg/kg).

Acronyms/Abbreviations:

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AOPI = Area of Potential Interest

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CAS = Chemical Abstracts Service number

FD = field duplicate sample

ID = identification

mg/kg = milligrams per kilogram (parts per million)

N = primary sample

PFAS = per- and polyfluoroalkyl substances

Qual = qualifier

SI = Site Inspection

USAEC = U.S. Army Environmental Command

Qualifiers:

U = The analyte was analyzed for but the result was not detected above the limit of detection.

				AOP	AA5 Range		AA5 Range		Fuze Range		Weide Airfield – Building E4081		Weide Airfield – Building E4081		H-Field - Tank Fire Response Area	
				Location	APG-AA5-1		APG-AA5-1		APG-FUZE-1		APG-BLDG-E4081-1		APG-BLDG-E4081-2		APG-TANKFIRE-1	
				Sample/Parent ID	APG-AA5-1-SE-031621		APG-DUP-05-031621 / APG-AA5-1-SE-031621		APG-FUZE-1-SE-031621		APG-BLDG-E4081-1-SE-031021		APG-BLDG-E4081-2-SE-031021		APG-TANK-FIRE-1-SE-031021	
				Sample Date	03/16/2021		03/16/2021		03/16/2021		03/10/2021		03/10/2021		03/10/2021	
				Sample Type	N		FD		N		N		N		N	
				Matrix	Sediment		Sediment		Sediment		Sediment		Sediment		Sediment	
Analyte	CAS	OSD Risk Screening Level	Units		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
PFAS																
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	--	mg/kg		0.053	J-	0.091		0.0089		0.0027	U	0.003	U	0.011	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	--	mg/kg		0.15		0.16		0.012		0.004	U	0.0044	U	0.017	U
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	--	mg/kg		0.0025	U	0.0027	U	0.006	U	0.0027	U	0.003	U	0.011	U
N-Methylperfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	--	mg/kg		0.0025	U	0.0027	U	0.006	U	0.0027	U	0.003	U	0.011	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	1.9 (R) 25 (I/C)	mg/kg		0.0025	U	0.0027	U	0.006	U	0.0027	U	0.003	U	0.011	U
Perfluorobutanoic acid (PFBA)	375-22-4	--	mg/kg		0.0028		0.0054		0.006	U	0.0027	U	0.003	U	0.011	U
Perfluorodecanoic acid (PFDA)	335-76-2	--	mg/kg		0.0094		0.01		0.044		0.0008	U	0.00089	U	0.0034	U
Perfluorododecanoic acid (PFDoA)	307-55-1	--	mg/kg		0.038		0.039		0.022		0.0008	U	0.00089	U	0.0034	U
Perfluorohexanoic acid (PFHpA)	375-85-9	--	mg/kg		0.012		0.011		0.0089		0.0008	U	0.00089	U	0.0034	U
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.013 (R) 1.6 (I/C)	mg/kg		0.0022		0.0037		0.008		0.0008	U	0.00089	U	0.0034	U
Perfluorohexanoic acid (PFHxA)	307-24-4	--	mg/kg		0.016		0.024		0.0092		0.0008	U	0.00089	U	0.0034	U
Perfluorononanoic acid (PFNA)	375-95-1	0.019 (R) 0.25 (I/C)	mg/kg		0.0014		0.0027		0.03		0.0008	U	0.00089	U	0.0034	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.013 (R) 0.16 (I/C)	mg/kg		0.031	J+	0.067	J	0.061		0.0008	U	0.00089	U	0.0034	U
Perfluorooctanoic acid (PFOA)	335-67-1	0.019 (R) 0.25 (I/C)	mg/kg		0.0036	J	0.0075	J	0.019		0.0008	U	0.00089	U	0.0034	U
Perfluoropentanoic acid (PFPeA)	2706-90-3	--	mg/kg		0.021		0.031		0.0096		0.0008	U	0.00089	U	0.0034	U
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	--	mg/kg		0.022		0.023		0.0035		0.0008	U	0.00089	U	0.0034	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	--	mg/kg		0.0049		0.008		0.0048		0.0008	U	0.00089	U	0.0034	U
Perfluoroundecanoic acid (PFUdA)	2058-94-8	--	mg/kg		0.0046		0.0066		0.043		0.0008	U	0.00089	U	0.0034	U
General Chemistry																
Percent Moisture	--	--			23.4		28.1		67.7		25.6		33.9		82.8	
Percent Moisture	--	--			23.4		28.1		67.7		25.6		33.9		82.8	

Notes:

1. **Bolded** values indicate the result was detected greater than the limit of detection
2. All laboratory reported results in nanograms per gram (ng/g) were converted to milligrams per kilogram (mg/kg).
3. Gray shaded values indicate the result was detected greater than the 2022 Office of the Secretary of Defense (OSD) risk screening levels, (OSD. 2022. Memorandum: Investigating Per- and Polyfluoroalkyl Substances within the Department of Defense Cleanup Program. July 06).

Acronyms/Abbreviations:

-- = not applicable/not analyzed

% = percent

AOPI = area of potential interest

CAS = Chemical Abstracts Service number

FD = field duplicate sample

I/C = industrial/commercial receptor scenario

ID = identification

mg/kg = milligrams per kilogram (parts per million)

N = primary sample

PFAS = per- and polyfluoroalkyl substances

Qual = Qualifier

Qualifier	Description
J	The analyte was positively identified; however the associated numerical value is an estimated concentration only
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
U	The analyte was analyzed for but the result was not detected above the limit of quantitation (LOQ).

			AOPi	Biosolid Application Field A-1		Biosolid Application Field A-1		Former Aberdeen Fire Training Area		Former Aberdeen Fire Training Area		Building 1074 - Former MFRI Fire Training Area		Building 1074 - Former MFRI Fire Training Area		Building 1074 - Former MFRI Fire Training Area		PAAF – Airfield Fire Station Building 1059	
			Location	APG-BAF-A1-1		APG-BAF-A1-2		APG-OLD-FTA-1		APG-OLD-FTA-2		APG-MFRI-1		APG-MFRI-1		APG-MFRI-2		APG-BLDG-1059-1-SO-(0-2)	
			Sample/Parent ID	APG-BAF-A1-1-SO-(0-2)-030221		APG-BAF-A1-2-SO-(0-2)-030221		APG-OLD-FTA-1-SO-(0-2)-031121		APG-OLD-FTA-2-SO-(0-2)-031121		APG-MFRI-1-SO-(8-10)-030421		APG-DUP-01-030421 / APG-MFRI-1-SO-(8-10)-030421		APG-MFRI-2-SO-(8-10)-030421		APG-BLDG-1059-1-SO-(0-2)-030321	
			Sample Date	03/02/2021		03/02/2021		03/11/2021		03/11/2021		03/04/2021		03/04/2021		03/04/2021		03/03/2021	
			Sample Type	N		N		N		N		N		FD		N		N	
			Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	CAS	OSD Risk Screening Level	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
PFAS																			
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	--	mg/kg	0.0024	U	0.0024	U	0.0024	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0024	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	--	mg/kg	0.0035	U	0.0035	U	0.0036	U	0.0033	U	0.0034	U	0.0036	U	0.0035	U	0.0035	U
N-Ethyl perfluorooctane sulfonamidobacetic acid (EtFOSSA)	2991-50-6	--	mg/kg	0.0024	UJ	R	R	R	R	R	R	0.0023	UJ	0.0024	UJ	R	0.0024	UJ	R
N-Methylperfluorooctane sulfonamidobacetic acid (MeFOSSA)	2355-31-9	--	mg/kg	0.0024	UJ	R	R	R	R	R	R	0.0024	UJ	0.0024	UJ	R	0.0067	JN	
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.019 (R) 0.25 (IIC)	mg/kg	0.0024	U	0.0024	U	0.0024	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0024	U
Perfluorobutanoic acid (PFBA)	375-22-4	--	mg/kg	0.0024	U	0.0024	U	0.0024	U	0.0022	U	0.0023	U	0.0024	U	0.0024	U	0.0024	U
Perfluorodecanoic acid (PFDA)	335-76-2	--	mg/kg	0.00071	U	0.00071	U	0.00072	U	0.00067	U	0.00068	U	0.00072	U	0.0007	U	0.003	
Perfluorododecanoic acid (PFDoA)	307-55-1	--	mg/kg	0.00071	U	0.00071	U	0.00072	U	0.00067	U	0.00068	U	0.00072	U	0.0007	U	0.00071	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	--	mg/kg	0.00071	U	0.00071	U	0.00072	U	0.00067	U	0.00068	U	0.00072	U	0.0007	U	0.00071	U
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.13 (R) 1.6 (IIC)	mg/kg	0.00071	U	0.00071	U	0.00086	U	0.0005	J	0.00068	U	0.00072	U	0.0007	U	0.0037	
Perfluorohexanoic acid (PFHxA)	307-24-4	--	mg/kg	0.00071	U	0.00071	U	0.00072	U	0.00067	U	0.00068	U	0.00072	U	0.0007	U	0.0053	J
Perfluorononanoic acid (PFNA)	375-95-1	0.25 (R) 0.019 (IIC)	mg/kg	0.00071	U	0.00071	U	0.00072	U	0.00067	U	0.00068	U	0.00072	U	0.0007	U	0.0016	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.013 (R) 0.16 (IIC)	mg/kg	0.0018		0.0036		0.0052		0.019		0.00068	U	0.00067	J	0.0007	U	0.14	
Perfluorooctanoic acid (PFOA)	335-67-1	0.25 (R) 0.019 (IIC)	mg/kg	0.0008		0.0012		0.00095		0.00067	U	0.00068	U	0.00072	U	0.0007	U	0.0012	
Perfluoropentanoic acid (PPPeA)	2706-90-3	--	mg/kg	0.00071	U	0.00071	U	0.00072	U	0.00067	U	0.00068	U	0.00072	U	0.0007	U	0.00065	J
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	--	mg/kg	0.00071	U	0.00071	U	0.00072	U	0.00067	U	0.00068	U	0.00072	U	0.0007	U	0.00071	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	--	mg/kg	0.00071	U	0.00071	U	0.00072	U	0.00063	J	0.00068	U	0.00072	U	0.0007	U	0.00071	U
Perfluoroundecanoic acid (PFUdA)	2058-94-8	--	mg/kg	0.00071	U	0.00071	U	0.0051	J	0.001		0.00068	U	0.00072	U	0.0007	U	0.0017	
TOC			Total Organic Carbon	--	--	mg/kg	2860	J+		1170	J-					979	J+	6090	J+
Grain Size																			
ARC-SIEVE 1.5 % passing	--	--	% passing	100						100						100		100	
ARC-SIEVE 3, % passing	--	--	% passing	100						100						100		100	
Clay	--	--	%	23						27						21		22	
Gravel	--	--	%	1	U					1	U					1.8		1	U
HYDROMETER, READING 1	--	--	% passing	87						93						49		91	
HYDROMETER, READING 2	--	--	% passing	80						86						44		84	
HYDROMETER, READING 3	--	--	% passing	51						58						32		53	
HYDROMETER, READING 4	--	--	% passing	23						27						21		22	
HYDROMETER, READING 5	--	--	% passing	5						19						17		12	
HYDROMETER, READING 6	--	--	% passing	9						17						15		5	
Sand	--	--	%	9.8						4.5						48		5.6	
Sieve 19000 micron, % passing	--	--	% passing	100						100						100		100	
Sieve No. 100, % passing	--	--	% passing	92.1						96.3						51.9		95.5	
Sieve No. 16, % passing	--	--	% passing	99.6						99.8						90		99.7	
Sieve No. 200, % passing	--	--	% passing	90.1						95.4						50.2		94.4	
Sieve No. 30, % passing	--	--	% passing	99						99						81.2		99	
Sieve No. 4, % passing	--	--	% passing	100						99.9						98.2		100	
Sieve No. 50, % passing	--	--	% passing	95.6						97.4						58.7		96.8	
Sieve No. 6, % passing	--	--	% passing	99.9						99.9						96.6		100	
Sieve No. 8, % passing	--	--	% passing	99.9						99.8						94.4		100	
Silt	--	--	%	67.1						68.4						29.2		72.4	
General Chemistry																			
Percent Moisture	--	--		22.2						19.9						18.6		17.9	
Percent Moisture	--	--		22.2						19.9						18.6		17.9	
pH	--	--		SU	7.4	J				6.8	J					5.3	J	7.1	J
Temperature	--	--		C	20.3					20.7						20.7		20.4	

			AOPI	PAAF- Hangar 1060		PAAF – Crash Truck Storage Bay Building 1065		PAAF – Loading Platform		Bldg 300-Fomer Fire Station_Bldg 250 Supply Wells		Bldg 300-Fomer Fire Station_Bldg 250 Supply Wells		Building 2200 – Current Aberdeen Fire Station		Building 2200 – Current Aberdeen Fire Station		Biosolid Application Field B		
			Location	APG-HANGAR-1060-1		APG-BLDG-1065-1		APG-LOADING-PAD-1		APG-BLDG-300-1		APG-BLDG-300-2		APG-BLDG-2200-1		APG-BLDG-2200-2		APG-BAF-B-1		
			Sample/Parent ID	APG-HANGER-1060-1-SO-(0-2)-030421	APG-BLDG-1065-1-SO-(0-2)-030321	APG-LOADING-PAD-1-SO-(0-2)-030421	APG-BLDG-300-1-SO-(0-2)-031521	APG-BLDG-300-2-SO-(0-2)-031521	APG-BLDG-2200-1-SO-(0-2)-031221	APG-BLDG-2200-2-SO-(0-2)-031221	APG-BAF-B-1-SO-(0-2)-030221									
			Sample Date	03/04/2021	03/03/2021	03/04/2021	03/15/2021	03/15/2021	03/12/2021	03/12/2021	03/12/2021									
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
			Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		
Analyte	CAS	OSD Risk Screening Level	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
PFAS																				
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	--	mg/kg	0.0022	U	0.0022	U	0.0022	U	0.0024	U	0.0023	U	0.0023	U	0.0023	U	0.0023	U	
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	--	mg/kg	0.0033	U	0.0034	U	0.0033	U	0.0036	U	0.0035	U	0.0034	U	0.0035	U	0.0035	U	
N-Ethyl perfluorooctane sulfonamidobacetic acid (EtFOSSAA)	2991-50-6	--	mg/kg	R		R		R		UJ		UJ		UJ		UJ		UJ		UJ
N-Methyl perfluorooctane sulfonamidobacetic acid (MeFOSSAA)	2355-31-9	--	mg/kg	R		R		R		UJ		UJ		UJ		UJ		UJ		UJ
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.019 (R) 0.25 (IIC)	mg/kg	0.0022	U	0.0022	U	0.0022	U	0.0024	U	0.0023	U	0.0023	U	0.0023	U	0.0023	U	
Perfluorobutanic acid (PFBA)	375-22-4	--	mg/kg	0.0022	U	0.0022	U	0.0022	U	0.0024	U	0.0023	U	0.0023	U	0.0023	U	0.0023	U	
Perfluorodecanoic acid (PFDA)	335-76-2	--	mg/kg	0.00065	U	0.00048	J	0.00066	U	0.00051	J	0.00069	U	0.0035		0.0081		0.00085		
Perfluorododecanoic acid (PFDoA)	307-55-1	--	mg/kg	0.00065	U	0.00067	U	0.00066	U	0.00071	U	0.00069	U	0.002		0.0015		0.0007	U	
Perfluoroheptanoic acid (PFHpA)	375-85-9	--	mg/kg	0.00065	U	0.00067	U	0.00066	U	0.00071	U	0.00069	U	0.00091		0.00075		0.0015		
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.13 (R) 1.6 (IIC)	mg/kg	0.00049	J	0.00067	U	0.002		0.00065	J	0.0051		0.00069	U	0.00069	U	0.0019		
Perfluorohexanoic acid (PFHxA)	307-24-4	--	mg/kg	0.00065	U	0.00067	U	0.00066	U	0.00071	U	0.0013		0.0008		0.00068	J	0.0011		
Perfluorononanoic acid (PFNA)	375-95-1	0.25 (R) 0.019 (IIC)	mg/kg	0.00062	J	0.00067	U	0.00066	U	0.00071	U	0.00069	U	0.0012		0.002		0.0026		
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.013 (R) 0.16 (IIC)	mg/kg	0.013		0.0042		0.0022		0.0063		0.017		0.0012		0.0033		0.03		
Perfluorooctanoic acid (PF OA)	335-67-1	0.25 (R) 0.019 (IIC)	mg/kg	0.0006	J	0.00067	U	0.00062	J	0.00071	U	0.0023		0.00078		0.00094		0.0023		
Perfluoropentanoic acid (PPPeA)	2706-90-3	--	mg/kg	0.00061	J	0.00067	U	0.00066	U	0.00073		0.00069	U	0.0015		0.001		0.0023		
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	--	mg/kg	0.00065	U	0.00067	U	0.00066	U	0.00071	U	0.00069	U	0.0053	J	0.00049	J	0.0007	U	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	--	mg/kg	0.00065	U	0.00067	U	0.00066	U	0.00071	U	0.00069	U	0.0059	J	0.00069	U	0.0007	U	
Perfluoroundecanoic acid (PFUdA)	2058-94-8	--	mg/kg	0.00065	U	0.00067	U	0.00066	U	0.0009		0.00069	U	0.0043		0.0028		0.00067	J	
TOC			Total Organic Carbon	--	--	mg/kg	3760	J+	5970	J+	6200	J+	6370	J-	5690	J-	8500	J+		
Grain Size																				
ARC-SIEVE 1.5 % passing	--	--	% passing	100		100		100		100		100		100		100		100		
ARC-SIEVE 3, % passing	--	--	% passing	100		100		100		100		100		100		100		100		
Clay	--	--	%	19		16		16		15		5		5		16		16		
Gravel	--	--	%	1	U	1	U	10.5		8.1		28.8		1		U		1		
HYDROMETER, READING 1	--	--	% passing	89		76		49		62		38		89		89		89		
HYDROMETER, READING 2	--	--	% passing	84		68		45		54		30		30		81		81		
HYDROMETER, READING 3	--	--	% passing	44		43		29		33		16		16		47		47		
HYDROMETER, READING 4	--	--	% passing	19		16		16		15		5		5		16		16		
HYDROMETER, READING 5	--	--	% passing	14		10		10		12		5		5		6		6		
HYDROMETER, READING 6	--	--	% passing	11		8		5		10		5		5		1		1	U	
Sand	--	--	%	8.9		20.5		38.7		26.2		33.3		7.1		7.1		7.1		
Sieve 1900 micron, % passing	--	--	% passing	100		100		96.5		100		95.1		100		100		100		
Sieve No. 100, % passing	--	--	% passing	91.7		82.9		53.7		74.9		43.1		94.5		94.5		94.5		
Sieve No. 16, % passing	--	--	% passing	96.9		99.4		82.4		89.8		69.2		99.8		99.8		99.8		
Sieve No. 200, % passing	--	--	% passing	90.9		79.5		50.9		65.7		38		92.9		92.9		92.9		
Sieve No. 30, % passing	--	--	% passing	95.3		95.9		74.9		88.7		59.1		99		99		99		
Sieve No. 4, % passing	--	--	% passing	99.8		100		89.5		91.9		71.3		100		100		100		
Sieve No. 50, % passing	--	--	% passing	93		88.2		60.6		84.4		50		96.4		96.4		96.4		
Sieve No. 6, % passing	--	--	% passing	99.4		99.9		88.1		91.2		70.3		99.9		99.9		99.9		
Sieve No. 8, % passing	--	--	% passing	98.6		99.8		85.5		90.2		69.8		99.9		99.9		99.9		
Silt	--	--	%	71.9		63.5		34.9		50.7		33		76.9		76.9		76.9		
General Chemistry																				
Percent Moisture	--	--		15.5		15.8		13.1		15.9		14.1		14.6		14.3		19.4		
Percent Moisture	--	--		15.5		15.8		13.1		15.9		14.1		14.6		14.3		19.4		
pH	--	--		SU	6.9	J	7.2	J	7.5	J	7.6	J	6.8	J	6.7	J	6.7	J		
Temperature	--	--		C	20.2		19.2		20		20.1		20.5		20.2		20.2			

			AOPI	Poverty Island Minefield Range		Poverty Island Minefield Range		Poverty Island Range 12		Poverty Island Range 12		Biosolid Application Field S-6	Building E5005 - Edgewood Fire Training Area	Building E5005 - Edgewood Fire Training Area	Building E5005 - Edgewood Fire Training Area				
			Location	APG-MINEFIELD-1		APG-MINEFIELD-2		APG-PI-12-1		APG-PI-12-2		APG-BAF-S6-1	APG-BLDG-E5005-1	APG-BLDG-E5005-2	APG-BLDG-E5005-3				
			Sample/Parent ID	APG-PI-MINEFIELD-1-SO-(0-2)-031521	APG-PI-MINEFIELD-2-SO-(0-2)-031521	APG-PI-12-1-SO-(0-2)-031521	APG-PI-12-2-SO-(0-2)-031521	APG-PI-12-2-SO-(0-2)-031521	APG-BAF-S6-1-SO-(0-2)-031621	APG-BLDG-E5005-1-SO-042221	APG-BLDG-E5005-2-SO-042221	APG-BLDG-E5005-3-SO-042221							
			Sample Date	03/15/2021	03/15/2021	03/15/2021	03/15/2021	03/15/2021	03/16/2021	03/16/2021	04/22/2021	04/22/2021	04/22/2021	04/22/2021					
			Sample Type	N	N	N	N	N	N	N	N	N	N	N					
			Matrix	Soil		Soil		Soil		Soil		Soil		Soil					
Analyte	CAS	OSD Risk Screening Level	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual				
PFAS																			
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	--	mg/kg	0.0021		0.0021	U	0.0021	U	0.0023	UJ	0.002	U	0.0026	U	0.0022	U		
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	--	mg/kg	0.018		0.0031	U	0.0031	U	0.0031	UJ	0.0035	UJ	0.0031	U	0.0039	U	0.0033	U
N-Ethyl perfluorooctane sulfonamidobacetic acid (EtFOSSA)	2991-50-6	--	mg/kg	0.0021	U	0.0021	U	0.0021	U	0.002	UJ	R	0.002	UJ	0.0026	U	0.0022	U	
N-Methylperfluorooctane sulfonamidobacetic acid (MeFOSSA)	2355-31-9	--	mg/kg	0.0021	U	0.0021	UJ	0.002	UJ	R	0.002	UJ	0.0026	U	0.0022	U			
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.019 (R) 0.25 (IIC)	mg/kg	0.0021	U	0.0021	U	0.0021	U	0.0023	U	0.002	U	0.0026	U	0.0022	U		
Perfluorobutanic acid (PFBA)	375-22-4	--	mg/kg	0.0021	U	0.0021	U	0.0021	U	0.0023	UJ	0.002	U	0.0026	U	0.0022	U		
Perfluorodecanoic acid (PFDA)	335-76-2	--	mg/kg	0.0059		0.00063	U	0.00063	U	0.0038		0.00069	U	0.00061	U	0.0026		0.0006	J
Perfluorododecanoic acid (PFDoA)	307-55-1	--	mg/kg	0.0063		0.0014		0.00063	U	0.00061	U	0.00069	U	0.00061	U	0.00078	U	0.00067	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	--	mg/kg	0.0005	J	0.00063	U	0.00063	U	0.00061	U	0.00069	U	0.00061	U	0.0018		0.00067	U
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.13 (R) 1.6 (IIC)	mg/kg	0.00062	U	0.00063	U	0.00063	U	0.00061	U	0.00069	U	0.00061	U	0.0012		0.0018	
Perfluorohexanoic acid (PFHxA)	307-24-4	--	mg/kg	0.00091		0.00063	U	0.00063	U	0.00061	U	0.00069	UJ	0.00061	U	0.00071	J	0.00067	U
Perfluorononanoic acid (PFNA)	375-95-1	0.25 (R) 0.019 (IIC)	mg/kg	0.00077		0.00063	U	0.00063	U	0.0011		0.00069	U	0.00061	U	0.0029		0.00048	J
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.013 (R) 0.16 (IIC)	mg/kg	0.00093		0.002		0.003		0.0077		0.00069	U	0.0028		0.01		0.0093	
Perfluorooctanoic acid (PFOA)	335-67-1	0.25 (R) 0.019 (IIC)	mg/kg	0.0011		0.00063	U	0.00063	U	0.00061	U	0.00069	U	0.00044	J	0.0021		0.00052	J
Perfluoropentanoic acid (PPPeA)	2706-90-3	--	mg/kg	0.00059	J	0.00063	U	0.00066		0.00061	U	0.00069	UJ	0.00061	U	0.0012		0.00046	J
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	--	mg/kg	0.0025		0.00088		0.00063	U	0.00061	U	0.00069	UJ	0.00061	U	0.00078	U	0.00067	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	--	mg/kg	0.0014		0.00058	J	0.00063	U	0.00061	U	0.00069	U	0.00061	U	0.00078	U	0.00054	J
Perfluoroundecanoic acid (PFUdA)	2058-94-8	--	mg/kg	0.0048		0.00063	U	0.00063	U	0.00069	U	0.00061	U	0.0013		0.0011			
TOC																			
Total Organic Carbon	--	--	mg/kg	4000	J			2670	J			1870	J						
Grain Size																			
ARC-SIEVE 1.5 % passing	--	--	% passing	100				100				100							
ARC-SIEVE 3, % passing	--	--	% passing	100				100				100							
Clay	--	--	%	2				12				19.5							
Gravel	--	--	%	44.5				12.6				1	U						
HYDROMETER, READING 1	--	--	% passing	17				40				83							
HYDROMETER, READING 2	--	--	% passing	13				36				76							
HYDROMETER, READING 3	--	--	% passing	5				23				40							
HYDROMETER, READING 4	--	--	% passing	2				12				19.5							
HYDROMETER, READING 5	--	--	% passing	2				5				14							
HYDROMETER, READING 6	--	--	% passing	2				3				12							
Sand	--	--	%	36.7				45.8				13.3							
Sieve 1900 micron, % passing	--	--	% passing	92.5				95.8				100							
Sieve No. 100, % passing	--	--	% passing	26.5				45.4				90.1							
Sieve No. 16, % passing	--	--	% passing	51.3				57.1				99.9							
Sieve No. 200, % passing	--	--	% passing	18.8				41.7				86.7							
Sieve No. 30, % passing	--	--	% passing	42.4				81.7				99.2							
Sieve No. 4, % passing	--	--	% passing	55.5				87.5				100							
Sieve No. 50, % passing	--	--	% passing	34.7				58.7				94.2							
Sieve No. 6, % passing	--	--	% passing	53.6				87.3				99.9							
Sieve No. 8, % passing	--	--	% passing	52.4				87.2				99.9							
Silt	--	--	%	16.8				29.7				67.2							
General Chemistry																			
Percent Moisture	--	--		10.9		7.3		13.4		10.7		17.6		7.7		24.4		17.7	
Percent Moisture	--	--		10.9		7.3		13.4		10.7		17.6		7.7		24.4		17.7	
pH	--	--		SU	7.2	J		7	J			5.6	J						
Temperature	--	--		C	21.1			20.5				20.4							

			AOPi	Building E5180 - Edgewood Fire Station		Biosolid Application Field D		CASY Site		G-Street Plane Crash		Noble Road - Former Fire Training Area		Noble Road - Former Fire Training Area		Weide Airfield Building E4040		Weide Airfield – Building E4081			
			Location	APG-BLDG-E5180-1		APG-BAF-D-1		APG-CASEY-YARD-1		APG-G-STREET-1		APG-NOBLE-ROAD-1		APG-NOBLE-ROAD-2		APG-BLDG-E4040-1		APG-BLDG-E4081-1			
			Sample/Parent ID	APG-BLDG-E5180-1-SO-(0-2)-031721		APG-BAF-D-1-SO-(0-2)-030321		APG-CASEY-YARD-1-SO-(0-2)-031021		APG-G-STREET-1-SO-(0-2)-031921		APG-NOBLE-ROAD-1-SO-(0-2)-031021		APG-NOBLE-ROAD-2-SO-(0-2)-031021		APG-BLDG-E4040-1-SO-(0-2)-031921		APG-BLDG-E4081-1-SO-(0-2)-031021			
			Sample Date	03/17/2021		03/03/2021		03/10/2021		03/19/2021		03/10/2021		03/10/2021		03/19/2021		03/10/2021			
			Sample Type	N		N		N		N		N		N		N		N			
			Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil			
Analyte	CAS	OSD Risk Screening Level	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		
PFAS																					
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	--	mg/kg	0.003		0.0023	U	0.0023	U	0.0022	U	0.0023	U	0.0022	U	0.0021	U	0.0026	U		
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	--	mg/kg	0.0028	J	0.0034	U	0.0034	U	0.0033	U	0.0035	U	0.0033	U	0.0032	U	0.0039	U		
N-Ethyl perfluorooctane sulfonamidobacetic acid (EtFOSSA)	2991-50-6	--	mg/kg	0.0023	U	R	0.0023	U	0.0022	U	0.0023	U	0.0022	U	0.0021	UJ	0.0026	U			
N-Methylperfluorooctane sulfonamidobacetic acid (MeFOSSA)	2355-31-9	--	mg/kg	0.0023	U	R	0.0023	U	0.0022	U	0.0023	UJ	0.0022	U	0.0021	UJ	0.0026	U			
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.019 (R) 0.25 (IIC)	mg/kg	0.0023	U	0.0023	U	0.0022	U	0.0023	U	0.0022	U	0.0022	U	0.0021	U	0.0026	U		
Perfluorobutanoic acid (PFBA)	375-22-4	--	mg/kg	0.0023	U	0.0023	U	0.0022	U	0.0023	U	0.0022	U	0.0022	U	0.0021	U	0.0026	U		
Perfluorodecanoic acid (PFDA)	335-76-2	--	mg/kg	0.008		0.00068	U	0.00068	U	0.00066	U	0.00069	U	0.00066	U	0.00064	U	0.00079	U		
Perfluorododecanoic acid (PFDoA)	307-55-1	--	mg/kg	0.00081		0.00068	U	0.00068	U	0.00066	U	0.00069	U	0.00066	U	0.00064	U	0.00079	U		
Perfluoroheptanoic acid (PFHpA)	375-85-9	--	mg/kg	0.0018		0.00068	U	0.00068	U	0.00066	U	0.00069	U	0.00066	U	0.00064	U	0.00079	U		
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.13 (R) 1.6 (IIC)	mg/kg	0.00068	U	0.00068	U	0.00068	U	0.00066	U	0.0015		0.0023		0.00064	U	0.00079	U		
Perfluorohexanoic acid (PFHxA)	307-24-4	--	mg/kg	0.0011		0.00068	U	0.00068	U	0.00066	U	0.00049	J	0.00066	U	0.00064	U	0.00079	U		
Perfluorononanoic acid (PFNA)	375-95-1	0.25 (R) 0.019 (IIC)	mg/kg	0.0046		0.00068	U	0.00068	U	0.00066	U	0.00069	U	0.00053	J	0.00064	U	0.00079	U		
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.013 (R) 0.16 (IIC)	mg/kg	0.019		0.0025		0.00068	U	0.00066	U	0.014		0.0099		0.00051	J	0.00079	U		
Perfluorooctanoic acid (PFOA)	335-67-1	0.25 (R) 0.019 (IIC)	mg/kg	0.0016		0.00079		0.00068	U	0.00066	U	0.00069	U	0.00095		0.00064	U	0.00079	U		
Perfluoropentanoic acid (PPPeA)	2706-90-3	--	mg/kg	0.0027		0.00068	U	0.00068	U	0.00066	U	0.00069	U	0.00066	U	0.00064	U	0.00079	U		
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	--	mg/kg	0.00068	U	0.00068	U	0.00068	U	0.00066	U	0.00069	U	0.00066	U	0.00064	U	0.00079	U		
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	--	mg/kg	0.00068	U	0.00068	U	0.00068	U	0.00066	U	0.00069	U	0.00066	U	0.00064	U	0.00079	U		
Perfluoroundecanoic acid (PFUdA)	2058-94-8	--	mg/kg	0.0021		0.00068	U	0.00068	U	0.00066	U	0.00069	U	0.00066	U	0.00064	U	0.00079	U		
TOC			Total Organic Carbon	--	--	mg/kg	10000	J-	3320	J+	3010	J-	1580	J-	5400	J-	4320	J-	6500	J-	
Grain Size						% passing	100		100		100		100				100		100		
ARC-SIEVE 1.5 % passing	--	--				% passing	100		100		100		100				100		100		
ARC-SIEVE 3 % passing	--	--				% passing	100		100		100		100				100		100		
Clay	--	--				%	23		19		14		15		8		15		12		
Gravel	--	--				%	1	U	1	U	28.4	6.3	16.8			6.1		9.2			
HYDROMETER, READING 1	--	--				% passing	66		63		37		47		45		44		55		
HYDROMETER, READING 2	--	--				% passing	61		56		34		44		38		39.5		52		
HYDROMETER, READING 3	--	--				% passing	45		38		24		33		23		30		26		
HYDROMETER, READING 4	--	--				% passing	23		19		14		15		8		15		12		
HYDROMETER, READING 5	--	--				% passing	21		14		9		10.5		7.5		9.5		6		
HYDROMETER, READING 6	--	--				% passing	22		10		8		10		8		7		4		
Sand	--	--				%	30.6		35.1		32.7		44.9		35.4		45		34.8		
Sieve 19000 micron, % passing	--	--				% passing	100		100		86.8		100		95.1		100		94.8		
Sieve No. 100, % passing	--	--				% passing	75.8		66.8		41.8		55.3		52.7		55.6		66.2		
Sieve No. 16, % passing	--	--				% passing	99.4		99.8		68.1		92		80.3		93.1		90.6		
Sieve No. 200, % passing	--	--				% passing	69.4		64.8		38.9		48.7		47.8		49		56		
Sieve No. 30, % passing	--	--				% passing	97.6		90.7		60.8		86		77.9		89.8		88		
Sieve No. 4, % passing	--	--				% passing	100		100		71.6		93.7		83.2		93.9		90.8		
Sieve No. 50, % passing	--	--				% passing	87.2		72.8		49.1		70.3		66		75.5		78.9		
Sieve No. 6, % passing	--	--				% passing	99.9		99.9		69.6		93.2		81.7		93.7		90.7		
Sieve No. 8, % passing	--	--				% passing	99.8		99.9		68.6		92.6		80.6		93.6		90.7		
Silt	--	--				%	46.4		45.8		24.9		33.7		39.8		34		44		
General Chemistry																					
Percent Moisture	--	--					16.2		17.1		18		16		16		9.9		26.1		
Percent Moisture	--	--					16.2		17.1		18		16		16		9.9		26.1		
pH	--	--					SU	6.5	J	8.6	J	7.6	J	7.8	J	7.2	J	7	J	6.1	J
Temperature	--	--					C	21.4		18.5		20.5		19.9		20.5		19.6		20.8	

			AOP	Weide Airfield – Building E4081		Weide Airfield – Building E4081		Weide Airfield - Tarmac Area		H-Field - Helicopter Fire Response Area		Biosolid Application Field E		ABR-3		ABR-6		ABR-6			
			Location	APG-BLDG-E4081-2		APG-BLDG-E4081-2		APG-WEIDE-1		APG-HELI FIRE-1		APG-BAF-E-1		APG-ABR3-1		APG-ABR6-1		APG-ABR6-2			
			Sample/Parent ID	APG-BLDG-E4081-2-SO-(0-2)-031021	APG-DUP-03-031021 / APG-BLDG-E4081-2-SO-(0-2)-031021		APG-WEIDE-1-SO-(0-2)-031721	APG-HELI FIRE-1-SO-(0-2)-031221	APG-BAF-E-1-SO-(0-2)-030321		APG-ABR3-1-(0-2)-030821	APG-ABR6-1-SO-(0-2)-030521		APG-ABR6-2-SO-(0-2)-030521							
			Sample Date	03/10/2021		03/10/2021		03/17/2021		03/12/2021		03/03/2021		03/08/2021		03/05/2021		03/05/2021			
			Sample Type	N		FD		N		N		N		N		N		N			
			Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil			
Analyte	CAS	OSD Risk Screening Level	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		
PFAS																					
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	--	mg/kg	0.0023	U	0.0021	U	0.0022	U	0.0021	U	0.0023	U	0.0024	U	0.0025	U	0.0022	U		
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	--	mg/kg	0.0035	U	0.0032	U	0.0033	U	0.0032	U	0.0034	U	0.0036	U	0.0037	U	0.0032	U		
N-Ethyl perfluorooctane sulfonamidobacetic acid (EtFOSSA)	2991-50-6	--	mg/kg	0.0023	U	0.0021	U	0.0022	UJ	0.0021	UJ	0.0023	UJ	0.0024	UJ	0.0025	UJ	0.0022	U		
N-Methylperfluorooctane sulfonamidobacetic acid (MeFOSSA)	2355-31-9	--	mg/kg	0.0023	U	0.0021	U	0.0022	UJ	0.0021	UJ	0.0023	UJ	0.0024	UJ	0.0025	UJ	0.0022	U		
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.019 (R) 0.25 (IIC)	mg/kg	0.0023	U	0.0021	U	0.0022	U	0.0021	U	0.0023	U	0.0024	U	0.0025	U	0.0022	U		
Perfluorobutanic acid (PFBA)	375-22-4	--	mg/kg	0.0023	U	0.0021	U	0.0022	U	0.0021	U	0.0023	U	0.0024	U	0.0025	U	0.0022	U		
Perfluorodecanoic acid (PFDA)	335-76-2	--	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.00091		0.002		0.0014			
Perfluorodecanoic acid (PFDa)	307-55-1	--	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.00073	U	0.00074	U	0.0008			
Perfluoroheptanoic acid (PFHpA)	375-85-9	--	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.00073	U	0.0019		0.00045	J		
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.13 (R) 1.6 (IIC)	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.0056		0.01		0.00065	U		
Perfluorohexanoic acid (PFHxA)	307-24-4	--	mg/kg	0.00069	U	0.00076		0.00066	U	0.00064	U	0.00069	U	0.0006	J	0.0013		0.00065	U		
Perfluorononanoic acid (PFNA)	375-95-1	0.25 (R) 0.019 (IIC)	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.0012		0.0075		0.001			
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.013 (R) 0.16 (IIC)	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.1		0.061		0.0028			
Perfluorooctanoic acid (PF OA)	335-67-1	0.25 (R) 0.019 (IIC)	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.0012		0.006		0.00056	J		
Perfluoropentanoic acid (PFPeA)	2706-90-3	--	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.00073	U	0.0012		0.00048	J		
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	--	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.00073	U	0.00074	U	0.00065	U		
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	--	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.00073	U	0.00074	U	0.00065	U		
Perfluoroundecanoic acid (PFUdA)	2058-94-8	--	mg/kg	0.00069	U	0.00064	U	0.00066	U	0.00064	U	0.00069	U	0.00098		0.00051	J	0.0028			
TOC			Total Organic Carbon	--	--	mg/kg			2330	J	1640	J	2170	J+	18500	J+	5190	J+			
Grain Size																					
ARC-SIEVE 1.5 % passing	--	--	% passing						100		100		100		100		100				
ARC-SIEVE 3, % passing	--	--	% passing						100		100		100		100		100				
Clay	--	--	%						27		6		20		9		13				
Gravel	--	--	%						2		1.2		1	U	3.8		2.3				
HYDROMETER, READING 1	--	--	% passing						70.5		26		69		67		58				
HYDROMETER, READING 2	--	--	% passing						37		13		63		60		50				
HYDROMETER, READING 3	--	--	% passing						27		6		20		9		13				
HYDROMETER, READING 4	--	--	% passing						12		4		14		5		9				
HYDROMETER, READING 5	--	--	% passing						13		5		10		5		7				
HYDROMETER, READING 6	--	--	% passing						25.1		71.6		28.8		26.8		35.9				
Sand	--	--	%						100		100		100		96.4		100				
Sieve 1900 micron, % passing	--	--	% passing						73.2		30.6		73.7		71.6		64.9				
Sieve No. 100, % passing	--	--	% passing						97.9		97.9		99.5		95.6		92				
Sieve No. 16, % passing	--	--	% passing						73		27.3		71.2		69.4		61.8				
Sieve No. 200, % passing	--	--	% passing						98		99.8		100		96.2		97.8				
Sieve No. 30, % passing	--	--	% passing						91.5		57.2		78.7		78.6		73.3				
Sieve No. 4, % passing	--	--	% passing						97.9		98.3		99.9		96.2		96.3				
Sieve No. 50, % passing	--	--	% passing						97.9		98		99.8		96.2		94.7				
Sieve No. 6, % passing	--	--	% passing						46		21.3		51.2		60.4		48.8				
Silt	--	--	%																		
General Chemistry																					
Percent Moisture	--	--		13.6		14.4		15.4		10.1		13.4		18.2		25.3		15			
Percent Moisture	--	--		13.6		14.4		15.4		10.1		13.4		18.2		25.3		15			
pH	--	--		SU				5.2	J	6.4	J	6.4	J	6.7	J	6.9	J				
Temperature	--	--		C				20.3		20.8		20.3		20.8		20.3					

			AOPI	ABR-7		PAAF - Airfield Boneyard		PAAF - Airfield Boneyard		PAAF - Airfield Boneyard		PAAF - Airfield Boneyard		PAAF - Airfield Boneyard		PAAF - Airfield Boneyard			
			Location	APG-ABR7-1		APG-BONEYARD-1		APG-BONEYARD-2		APG-BONEYARD-3		APG-BONEYARD-4		APG-BONEYARD-5		APG-BONEYARD-6			
			Sample/Parent ID	APG-ABR7-1-SO-(0-2)-030521	APG-BONEYARD-1-SO-(0-2)-031121	APG-BONEYARD-2-SO-(0-2)-030821	APG-BONEYARD-3-SO-(0-2)-030821	APG-BONEYARD-4-SO-(0-2)-030821	APG-BONEYARD-5-SO-(0-2)-030821	APG-BONEYARD-6-SO-(0-2)-031121	APG-BONEYARD-7-SC-(0-2)-031121								
			Sample Date	03/05/2021		03/11/2021		03/08/2021		03/08/2021		03/08/2021		03/08/2021		03/11/2021		03/11/2021	
			Sample Type	N		N		N		N		N		N		N		N	
			Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil			
Analyte	CAS	OSD Risk Screening Level	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
PFAS																			
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	--	mg/kg	0.0021	U	0.0022	U	0.0023	U	0.0022	U	0.0022	U	0.0024	UJ	0.0024	UJ	0.0023	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	--	mg/kg	0.0032	U	0.0033	U	0.0035	U	0.0034	U	0.0033	U	0.0036	UJ	0.0037	UJ	0.0035	U
N-Ethyl perfluorooctane sulfonamidobacetic acid (EtFOSAA)	2991-50-6	--	mg/kg	0.0021	UJ	R	R	R	R	R	R	R	R	R	R	R	R	R	
N-Methylperfluorooctane sulfonamidobacetic acid (MeFOSAA)	2355-31-9	--	mg/kg	0.0021	UJ	R	R	R	R	R	R	R	R	R	R	R	R	R	
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.019 (R) 0.25 (IIC)	mg/kg	0.0021	U	0.0022	U	0.0023	U	0.0022	U	0.0022	U	0.0024	U	0.0024	U	0.0023	U
Perfluorobutanoic acid (PFBA)	375-22-4	--	mg/kg	0.0021	U	0.0022	U	0.0023	U	0.0022	U	0.0022	U	0.0024	U	0.0024	U	0.0023	U
Perfluorodecanoic acid (PFDA)	335-76-2	--	mg/kg	0.00063	U	0.00066	U	0.00069	U	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
Perfluorodecanoic acid (PFDoA)	307-55-1	--	mg/kg	0.00063	U	0.00066	U	0.00069	U	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
Perfluorooctanoic acid (PFHpA)	375-85-9	--	mg/kg	0.00063	U	0.00066	U	0.00069	U	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
Perfluorooctane sulfonic acid (PFHxS)	355-46-4	0.13 (R) 1.6 (IIC)	mg/kg	0.00063	U	0.00066	U	0.00069	U	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
Perfluorooctanoic acid (PFHxA)	307-24-4	--	mg/kg	0.00063	U	0.00066	U	0.00051	J	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
Perfluorononanoic acid (PFNA)	375-95-1	0.25 (R) 0.019 (IIC)	mg/kg	0.00063	U	0.00066	U	0.00069	U	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.013 (R) 0.16 (IIC)	mg/kg	0.00063	U	0.00066	U	0.0023		0.0006	J	0.00067	U	0.0052		0.00073	U	0.0007	U
Perfluorooctanoic acid (PFOA)	335-67-1	0.25 (R) 0.019 (IIC)	mg/kg	0.00063	U	0.00048	J	0.00074		0.00067	U	0.00067	U	0.00064	J	0.00056	J	0.0007	U
Perfluoropentanoic acid (PFPeA)	2706-90-3	--	mg/kg	0.00063	U	0.00066	U	0.00069	U	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	--	mg/kg	0.00063	U	0.00066	U	0.00069	U	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	--	mg/kg	0.00063	U	0.00066	U	0.00069	U	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
Perfluoroundecanoic acid (PFUdA)	2058-94-8	--	mg/kg	0.00063	U	0.00066	U	0.00069	U	0.00067	U	0.00067	U	0.00072	U	0.00073	U	0.0007	U
TOC																			
Total Organic Carbon	--	--	mg/kg	979	J+	3290	J-												
Grain Size																			
ARC-SIEVE 1.5, % passing	--	--	% passing	100		100													
ARC-SIEVE 3, % passing	--	--	% passing	100		100													
Clay	--	--	%	7		14													
Gravel	--	--	%	3.7		7													
HYDROMETER, READING 1	--	--	% passing	32		64													
HYDROMETER, READING 2	--	--	% passing	24		63													
HYDROMETER, READING 3	--	--	% passing	15		41													
HYDROMETER, READING 4	--	--	% passing	7		14													
HYDROMETER, READING 5	--	--	% passing	4		10.5													
HYDROMETER, READING 6	--	--	% passing	1	U	12													
Sand	--	--	%	60.7		22.3													
Sieve 1900 micron, % passing	--	--	% passing	100		100													
Sieve No. 100, % passing	--	--	% passing	45.1		72.4													
Sieve No. 16, % passing	--	--	% passing	87.4		89.2													
Sieve No. 200, % passing	--	--	% passing	35.6		70.7													
Sieve No. 30, % passing	--	--	% passing	81.6		85.9													
Sieve No. 4, % passing	--	--	% passing	96.3		93													
Sieve No. 50, % passing	--	--	% passing	60		77.1													
Sieve No. 6, % passing	--	--	% passing	94.2		91.1													
Sieve No. 8, % passing	--	--	% passing	91.5		89.6													
Silt	--	--	%	28.6		56.7													
General Chemistry																			
Percent Moisture	--	--		10.3		16.1		14.5		17.4		13.4		16.9		18.1		15.6	
Percent Moisture	--	--		10.3		16.1		14.5		17.4		13.4		16.9		18.1		15.6	
pH	--	--		SU	9.9	J	6.3	J											
Temperature	--	--		C	20.3		20.3												

			AOP	Biosolid Application Field ATC-1	Biosolid Application Field ATC-2	Biosolid Application Field E-3	Biosolid Application Field E-4	Biosolid Application Field S-1A	Biosolid Application Field S-1A	Biosolid Application Field S-3							
			Location	APG-ATC1-1	APG-ATC2-1	APG-E3-1	APG-E4-1	APG-S1A-1	APG-S1A-1	APG-S3-1							
			Sample/Parent ID	APG-ATC1-1-SO-(0.5-2)-121621	APG-ATC2-1-SO-(0.5-2)-121621	APG-E3-1-SO-(0.5-2)-121621	APG-E4-1-SO-(0.5-2)-121621	APG-S1A-1-SO-(0.5-2)-121621	APG-FD-1-SO-(0.5-2)-121621 / APG-S1A-1-SO-(0.5-2)-121621	APG-S3-1-SO-(0.5-2)-121621							
			Sample Date	12/16/2021	12/16/2021	12/16/2021	12/16/2021	12/16/2021	12/16/2021	12/16/2021							
			Sample Type	N	N	N	N	N	FD	N							
			Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil							
Analyte	CAS	OSD Risk Screening Level	Units	Result	Qual	Result	Qual	Result	Qual	Result							
PFAS																	
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	--	mg/kg	0.0026	UJ	0.0034	UJ	0.0022	UJ	0.0023	UJ	0.0026	UJ	0.0025	UJ		
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	--	mg/kg	0.0039	UJ	0.0052	UJ	0.0033	UJ	0.0034	UJ	0.0039	UJ	0.0044	UJ	0.0038	UJ
N-Ethyl perfluorooctane sulfonamidobacetic acid (EtFOSSAA)	2991-50-6	--	mg/kg	0.0026	UJ	0.0034	UJ	0.0022	UJ	0.0023	UJ	0.0026	UJ	0.003	UJ	0.0025	UJ
N-Methyl perfluorooctane sulfonamidobacetic acid (MeFOSSAA)	2355-31-9	--	mg/kg	0.0026	UJ	0.0034	UJ	0.0022	UJ	0.0023	UJ	0.0026	UJ	0.003	UJ	0.0025	UJ
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.019 (R) 0.25 (IC)	mg/kg	0.0026	UJ	0.0034	UJ	0.0022	UJ	0.0023	UJ	0.0026	UJ	0.003	UJ	0.0025	UJ
Perfluorobutanic acid (PFBA)	375-22-4	--	mg/kg	0.0026	UJ	0.0034	UJ	0.0022	UJ	0.0023	UJ	0.0026	UJ	0.003	UJ	0.0025	UJ
Perfluorodecanoic acid (PFDA)	335-76-2	--	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluorododecanoic acid (PFDoA)	307-55-1	--	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluoroheptanoic acid (PFHpA)	375-85-9	--	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.13 (R) 1.6 (IC)	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluorohexanoic acid (PFHxA)	307-24-4	--	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluorononanoic acid (PFNA)	375-95-1	0.25 (R) 0.019 (IC)	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.013 (R) 0.16 (IC)	mg/kg	0.00077	UJ	0.001	UJ	0.0011	J	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluorooctanoic acid (PFOA)	335-67-1	0.25 (R) 0.019 (IC)	mg/kg	0.00077	UJ	0.001	UJ	0.00047	J	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluoropentanoic acid (PPPeA)	2706-90-3	--	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	--	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	--	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
Perfluoroundecanoic acid (PFUdA)	2058-94-8	--	mg/kg	0.00077	UJ	0.001	UJ	0.00066	UJ	0.00068	UJ	0.00077	UJ	0.00089	UJ	0.00076	UJ
TOC	Total Organic Carbon	--	--	mg/kg	6970	J-	30700	J-	17000	J-	12800	J-	10200	J-	14200	J-	
Grain Size																	
ARC-SIEVE 1.5 % passing	--	--	% passing	100		100		100		100		100		100		100	
ARC-SIEVE 3, % passing	--	--	% passing	100		100		100		100		100		100		100	
Clay	--	--	%	23		9.5		13		3		8		15			
Gravel	--	--	%	1	U	1	U	1	U	21.8		1	U	1	U		
HYDROMETER, READING 1	--	--	% passing	89.5		60		78		30		72		70			
HYDROMETER, READING 2	--	--	% passing	84		52.5		64.5		23		54		56.5			
HYDROMETER, READING 3	--	--	% passing	56		33.5		33		9.8		30		32.5			
HYDROMETER, READING 4	--	--	% passing	23		9.5		13		3		8		15			
HYDROMETER, READING 5	--	--	% passing	15		4.5		7		2.5		4		11			
HYDROMETER, READING 6	--	--	% passing	10		2		4.8		3		2		8			
Sand	--	--	%	7		36		15.2		45.2		21.7		24.8			
Sieve 19000 micron, % passing	--	--	% passing	100		100		100		100		100		100			
Sieve No. 100, % passing	--	--	% passing	92.4		66.7		87.2		38.5		82.8		78.1			
Sieve No. 16, % passing	--	--	% passing	93		97.8		94.4		56.7		96.3		99			
Sieve No. 200, % passing	--	--	% passing	92.1		63.1		83.9		33		77.9		75.1			
Sieve No. 30, % passing	--	--	% passing	93		96.3		93.9		53.2		95.9		98			
Sieve No. 4, % passing	--	--	% passing	99.1		99.1		99.1		78.2		99.6		99.9			
Sieve No. 50, % passing	--	--	% passing	92.7		80.4		91.3		46.5		88.9		85.6			
Sieve No. 6, % passing	--	--	% passing	97		98.7		97.3		71.1		98.4		99.6			
Sieve No. 8, % passing	--	--	% passing	93.1		97.8		94.4		63		96.4		99.2			
Silt	--	--	%	69.1		53.6		70.9		30		69.9		60.1			
General Chemistry																	
Percent Moisture	--	--		23.1		46.2		16.2		13.7		23.6		34.2		23.1	
Percent Moisture	--	--		23.1		46.2		16.2		13.7		23.6		34.2		23.1	
pH	--	--		SU	5.1	J	5.2	J	6.3	J	7.6	J	5.9	J	5.6	J	
Temperature	--	--		C	20.6		21		21.6		20.7		20.7		20.5		

Notes:

1. **Bolded** values indicate the result was detected greater than the limit of detection
2. All laboratory reported results in nanograms per gram (ng/g) were converted to milligrams per kilogram (mg/kg).
3. Gray shaded values indicate the result was detected greater than the 2022 Office of the Secretary of Defense (OSD) risk screening levels, (OSD. 2022. Memorandum: Investigating Per- and Polyfluoroalkyl Substances within the Department of Defense Cleanup Program. July 06).

Acronyms/Abbreviations:

-- = not applicable/not analyzed

% = percent

AOPI = area of potential interest

C = Celsius

CAS = Chemical Abstracts Service number

FD = field duplicate sample

I/C = industrial/commercial receptor scenario

ID = identification

mg/kg = milligrams per kilogram (parts per million)

N = primary sample

PFAS = per- and polyfluoroalkyl substances

Qual = qualifier

SU = standard unit

Qualifier	Description
J	The analyte was positively identified; however the associated numerical value is an estimated concentration only
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
JN	The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
R	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Rejection of the data was decided by the project team and United States Army Corps of Engineers chemist.
U	The analyte was analyzed for but the result was not detected above the limit of quantitation (LOQ).
UJ	The analyte was analyzed for but was not detected. The LOQ is approximate and may be inaccurate or imprecise.

		Sample ID	APG-IDW-SO-1	
		Sample Date	04/22/2021	
		Sample Type	N	
Analyte	CAS	Units	Result	Qual
2-(4-chloro-2-methylphenoxy) acetic acid (MCPA)	97-74-6	ug/kg	29000	U
2,2-Dichloropropionic acid, Dalapon	75-99-0	ug/kg	1200	U
2,4,5-T	93-76-5	ug/kg	20	U
2,4,5-TP (Silvex)	93-72-1	mg/L	0.0050	U
2,4,6-Trinitrotoluene	118-96-7	ug/kg	220	U
2,4-D	94-75-7	mg/L	0.050	U
2,4-DB	94-82-6	ug/kg	240	U
4,4-DDD	72-54-8	ug/kg	10	U
4,4-DDE	72-55-9	ug/kg	7.1	JD
4,4-DDT	50-29-3	ug/kg	10	U
Aldrin	309-00-2	ug/kg	4.9	U
Alpha-BHC	319-84-6	ug/kg	4.9	U
Alpha-chlordane	5103-71-9	ug/kg	4.9	U
Beta-BHC	319-85-7	ug/kg	5.9	U
Chlordane	57-74-9	mg/L	0.025	UM
Delta-BHC	319-86-8	ug/kg	5.9	U
Dicamba	1918-00-9	ug/kg	140	U
Dichlorprop	120-36-5	ug/kg	230	U
Dieldrin	60-57-1	ug/kg	10	U
Endosulfan I	959-98-8	ug/kg	4.9	U
Endosulfan II	33213-65-9	ug/kg	13	U
Endosulfan sulfate	1031-07-8	ug/kg	10	U
Endrin	72-20-8	mg/L	0.0010	U
Endrin aldehyde	7421-93-4	ug/kg	10	U
Endrin ketone	53494-70-5	ug/kg	33	D
Gamma-BHC	58-89-9	mg/L	0.00050	U
gamma-Chlordane	5566-34-7	ug/kg	4.9	U
Heptachlor	76-44-8	mg/L	0.00050	U
Heptachlor epoxide	1024-57-3	mg/L	0.00050	U
Hexahydro-1,3,5-trinitro-1,3,5-triazine	121-82-4	ug/kg	130	UM
MCPP	93-65-2	ug/kg	89000	U
Methoxychlor	72-43-5	mg/L	0.0050	U
Octahydro-1,3,5,7-tetrinitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	220	U
Pentachlorophenol	87-86-5	ug/kg	20	U^c*+
Toxaphene	8001-35-2	mg/L	0.15	UM
PFAS				
4:2 Fluorotelomer sulfonate	757124-72-4	mg/kg	0.0024	U
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	mg/kg	0.0024	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	mg/kg	0.0035	U
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	mg/kg	0.0024	U
N-Methylperfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	mg/kg	0.0024	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	mg/kg	0.0024	U
Perfluorobutanoic acid (PFBA)	375-22-4	mg/kg	0.0024	U
Perfluorodecane sulfonic acid (PFDS)	335-77-3	mg/kg	0.00071	U
Perfluorodecanoic acid (PFDA)	335-76-2	mg/kg	0.00071	U
Perfluorododecanoic acid (PFDa)	307-55-1	mg/kg	0.00071	U
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	mg/kg	0.00071	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	mg/kg	0.00071	U
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	mg/kg	0.00071	U
Perfluorohexanoic acid (PFHxA)	307-24-4	mg/kg	0.00071	U
Perfluorononane sulfonic acid (PFNS)	68259-12-1	mg/kg	0.00071	U
Perfluorononanoic acid (PFNA)	375-95-1	mg/kg	0.00071	U
Perfluorooctane sulfonamide (PFOSA)	754-91-6	mg/kg	0.00071	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	mg/kg	0.0018	
Perfluorooctanoic acid (PFOA)	335-67-1	mg/kg	0.00071	UM
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	mg/kg	0.0035	U
Perfluoropentanoic acid (PFPeA)	2706-90-3	mg/kg	0.00071	U
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	mg/kg	0.00071	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	mg/kg	0.00071	U
Perfluoroundecanoic acid (PFUdA)	2058-94-8	mg/kg	0.00071	U
Metal				
Arsenic	7440-38-2	ug/L	30.0	U*+
Barium	7440-39-3	ug/L	228	B*+
Cadmium	7440-43-9	ug/L	5.00	U
Chromium	7440-47-3	ug/L	4.21	J^5-
Lead	7439-92-1	ug/L	24.2	
Mercury	7439-97-6	ug/L	0.200	U
Selenium	7782-49-2	ug/L	50.0	U
Silver	7440-22-4	ug/L	10.0	U^5-
General Chemistry				
Percent Moisture	--	%	15.0	
Percent Solids	--	%	85.0	
Perchlorate	14797-73-0	ug/kg	5.9	UFHM

		Sample ID	APG-IDW-SO-1		
		Sample Date	04/22/2021		
		Sample Type	N		
	Analyte	CAS	Units	Result	Qual
VOC	1,1,1-Trichloroethane	71-55-6	ug/kg	5.1	U
	1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	5.1	U
	1,1,2-trichloro-1,2,2-trifluoroethane	76-13-1	ug/kg	10	U
	1,1,2-Trichloroethane	79-00-5	ug/kg	5.1	U
	1,1-Dichloroethane	75-34-3	ug/kg	5.1	U
	1,1-Dichloroethene	75-35-4	ug/kg	5.1	U
	1,2,4-Trichlorobenzene	120-82-1	ug/kg	10	U
	1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	5.1	U
	1,2-Dibromoethane	106-93-4	ug/kg	5.1	U
	1,2-Dichlorobenzene	95-50-1	ug/kg	5.1	U
	1,2-Dichloroethane	107-06-2	ug/kg	5.1	U
	1,2-Dichloropropane	78-87-5	ug/kg	5.1	U
	1,3-Dichlorobenzene	541-73-1	ug/kg	5.1	U
	1,4-Dichlorobenzene	106-46-7	ug/kg	5.1	U
	2-Butanone (MEK)	78-93-3	ug/kg	4.3	JM
	4-Methyl-2-Pentanone	108-10-1	ug/kg	10	U
	Acetone	67-64-1	ug/kg	44	
	Benzene	71-43-2	ug/kg	5.1	U
	Bromodichloromethane	75-27-4	ug/kg	5.1	U
	Bromoform	75-25-2	ug/kg	10	U
	Bromomethane	74-83-9	ug/kg	5.1	U
	Carbon Disulfide	75-15-0	ug/kg	5.1	UM
	Carbon Tetrachloride	56-23-5	ug/kg	5.1	U
	CFC-11	75-69-4	ug/kg	5.1	U
	CFC-12	75-71-8	ug/kg	5.1	U
	Chlorobenzene	108-90-7	ug/kg	5.1	U
	Chlorodibromomethane	124-48-1	ug/kg	5.1	U
	Chloroethane	75-00-3	ug/kg	5.1	U
	Chloroform	67-66-3	ug/kg	5.1	U
	Chloromethane	74-87-3	ug/kg	5.1	U
	cis-1,2-Dichloroethene	156-59-2	ug/kg	5.1	U
	cis-1,3-Dichloropropene	10061-01-5	ug/kg	5.1	U
	Cyclohexane	110-82-7	ug/kg	5.1	U
	Dichloromethane	75-09-2	ug/kg	5.1	UM
	Ethylbenzene	100-41-4	ug/kg	5.1	U
	Isopropylbenzene	98-82-8	ug/kg	5.1	U
	Methyl Acetate	79-20-9	ug/kg	5.1	UM
	Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	ug/kg	10	UM
	Methylcyclohexane	108-87-2	ug/kg	5.1	UM
	Methyl-tert-butylether	1634-04-4	ug/kg	5.1	U
	Styrene (Monomer)	100-42-5	ug/kg	5.1	U
	Tetrachloroethene	127-18-4	ug/kg	5.1	U
	Toluene	108-88-3	ug/kg	5.1	U
	Total Xylenes	1330-20-7	ug/kg	10	U
	trans-1,2-Dichloroethene	156-60-5	ug/kg	5.1	U
	trans-1,3-Dichloropropene	10061-02-6	ug/kg	5.1	U
	Trichloroethene	79-01-6	ug/kg	5.1	U
	Vinyl chloride	75-01-4	ug/kg	5.1	U
SVOC	1,1-Biphenyl	92-52-4	ug/kg	43	U
	1,4-Dichlorobenzene	106-46-7	mg/L	0.010	U
	2,2-Oxybis(1-Chloropropane)	108-60-1	ug/kg	50	U
	2,4,5-Trichlorophenol	95-95-4	mg/L	0.010	U
	2,4,6-Trichlorophenol	88-06-2	mg/L	0.010	U
	2,4-Dichlorophenol	120-83-2	ug/kg	50	U
	2,4-Dimethylphenol	105-67-9	ug/kg	43	U
	2,4-Dinitrophenol	51-28-5	ug/kg	1200	UM
	2,4-Dinitrotoluene	121-14-2	mg/L	0.025	U
	2,6-Dinitrotoluene	606-20-2	ug/kg	43	UM
	2-Chloronaphthalene	91-58-7	ug/kg	39	U
	2-Chlorophenol	95-57-8	ug/kg	43	U
	2-Methyl-4,6-dinitrophenol	534-52-1	ug/kg	580	UM
	2-Methylnaphthalene	91-57-6	ug/kg	82	
	2-Methylphenol	95-48-7	mg/L	0.010	U
	2-Nitroaniline	88-74-4	ug/kg	58	UM
	2-Nitrophenol	88-75-5	ug/kg	58	U
	3,3-Dichlorobenzidine	91-94-1	ug/kg	190	U
	3-Nitroaniline	99-09-2	ug/kg	190	UM
	4-Bromophenyl phenyl ether	101-55-3	ug/kg	43	U
	4-Chloro-3-Methylphenol	59-50-7	ug/kg	58	UM
	4-Chlorophenyl phenyl ether	7005-72-3	ug/kg	43	U
	4-Methylphenol	106-44-5	mg/L	0.010	U
	4-Nitroaniline	100-01-6	ug/kg	190	UM
	4-Nitrophenol	100-02-7	ug/kg	580	U

Analyte	CAS	Units	Sample ID	APG-IDW-SO-1
			Sample Date	04/22/2021
			Sample Type	N
Acenaphthene	83-32-9	ug/kg	17	JM
Acenaphthylene	208-96-8	ug/kg	19	UM
Acetophenone	98-86-2	ug/kg	58	U
Anthracene	120-12-7	ug/kg	49	
Atrazine	1912-24-9	ug/kg	190	U
Benz(a)anthracene	56-55-3	ug/kg	170	
Benzaldehyde	100-52-7	ug/kg	190	U
Benzo(a)pyrene	50-32-8	ug/kg	160	M
Benzo(b)fluoranthene	205-99-2	ug/kg	210	M
Benzo(g,h,i)perylene	191-24-2	ug/kg	130	M
Benzo(k)fluoranthene	207-08-9	ug/kg	150	M
bis(2-Chloroethoxy)methane	111-91-1	ug/kg	43	U
bis(2-Chloroethyl)ether	111-44-4	ug/kg	43	U
bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	190	UM
Butyl benzyl phthalate	85-68-7	ug/kg	190	U
Caprolactam	105-60-2	ug/kg	190	U
Carbazole	86-74-8	ug/kg	43	UM
Chrysene	218-01-9	ug/kg	190	
Dibenz(a,h)anthracene	53-70-3	ug/kg	19	UM
Dibenzofuran	132-64-9	ug/kg	43	UM
Diethyl phthalate	84-66-2	ug/kg	190	U
Dimethyl phthalate	131-11-3	ug/kg	190	U
Di-n-butyl phthalate	84-74-2	ug/kg	190	U
Di-n-octyl phthalate	117-84-0	ug/kg	190	UM
Fluoranthene	206-44-0	ug/kg	400	
Fluorene	86-73-7	ug/kg	29	
Hexachloro-1,3-butadiene	87-68-3	mg/L	0.010	U
Hexachlorobenzene	118-74-1	mg/L	0.0025	U
Hexachlorocyclopentadiene	77-47-4	ug/kg	580	U
Hexachloroethane	67-72-1	mg/L	0.025	U
Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	110	M
Isophorone	78-59-1	ug/kg	78	U
Naphthalene	91-20-3	ug/kg	23	M
Nitrobenzene	98-95-3	mg/L	0.010	UM
N-Nitrosodi-n-propylamine	621-64-7	ug/kg	78	U
N-Nitrosodiphenylamine	86-30-6	ug/kg	43	UM
p-Chloroaniline	106-47-8	ug/kg	190	U
Pentachlorophenol	87-86-5	mg/L	0.025	U
Phenanthrene	85-01-8	ug/kg	220	
Phenol	108-95-2	ug/kg	43	UM
Pyrene	129-00-0	ug/kg	340	
Pyridine	110-86-1	mg/L	0.025	U

Notes:

1. **Bolded** values indicate the result was detected greater than the limit of detection

Acronyms/Abbreviations:

-- = not applicable

% = percent

CAS = Chemical Abstracts Service number

ID = identification

mg/L = milligrams per liter

N = primary sample

ng/L = nanograms per liter (parts per trillion)

PFAS = per- and polyfluoroalkyl substances

Qual = qualifier

SVOC = semivolatile organic compound

µg/L = micrograms per liter

ug/kg = micrograms per kilogram

VOC = volatile organic compound

Qualifier	Description
D	The analyte was analyzed at dilution.
J	The analyte was positively identified; however the associated numerical value is an estimated concentration only
M	Manually intergrated compound
U	The analyte was analyzed for but the result was not detected above the method detection limit.
^c	CCV Recovery is outside acceptance limits.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*-	LCS and/or LCSD is outside acceptance limits, low biased.
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased
FH	Matric Spike and/or Matrix Spike Duplicate recovery above control limits.
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.

			AOP	Biosolid Application Field A-1		Biosolid Application Field A-1		Biosolid Application Field A-1		Former Aberdeen Fire Training Area		Former Aberdeen Fire Training Area		Former Aberdeen Fire Training Area	
			Location	APG-BAF-A1-1		APG-BAF-A1-2		APG-FTA-M09		APG-FTA-M08		APG-FTA-M08		APG-OLD-FTA-1	
			Sample/Parent ID	APG-BAF-A1-1-GW-030221		APG-BAF-A1-2-GW-030221		APG-FTA-M09-030221		APG-FTA-M08-031121		APG-DUP-04-031121 / APG-FTA-M08-031121		APG-OLD-FTA-1-GW-031121	
			Sample Date	03/02/2021		03/02/2021		03/02/2021		03/11/2021		03/11/2021		03/11/2021	
			Sample Type	N		N		N		N		FD		N	
			Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
Analyte	CAS	OSD Tapwater	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	17		240		340		670		660		55	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	3.0	U	170		13		44		37		120	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	3.0	U	3.0	U	2.5	U	25	U	27	U	33	U
N-Methylperfluoroocatane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	2.0	U	5.8	JN	1.7	U	16	U	18	U	22	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	14		37		55		160		150		130	
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	6.2		60		110		190		180		72	
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	2.0	U	8.7		1.2	J	16	U	18	U	64	
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	2.0	U	2.0	U	1.7	U	16	U	18	U	22	U
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	14		76		130		270		260		62	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	71		1100		1700		2900		3100		1200	
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	16		260		480		1100		1100		250	
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	4.7		99		210		1700		1600		220	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	330	J	3900		11000		9000		8500		7000	
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	120		700		1100		6500		6600		720	

			AOP	Former Aberdeen Fire Training Area		Building 1074 - Former MFRI Fire Training Area		Building 1074 - Former MFRI Fire Training Area		PAAF – Airfield Fire Station Building 1059		PAAF- Hangar 1060		PAAF – Crash Truck Storage Bay Building 1065	
			Location	APG-OLD-FTA-2		APG-MFRI-1		APG-MFRI-2		APG-BLDG-1059-1		APG-HANGAR-1060-1		APG-BLDG-1065-1	
			Sample/Parent ID	APG-OLD-FTA-2-GW-031121		APG-MFRI1-1-GW-030421		APG-MFR1-2-GW-030421		APG-BLDG-1059-1-GW-030321		APG-HANGER-1060-1-GW-030421		APG-BLDG-1065-1-GW-030321	
			Sample Date	03/11/2021		03/04/2021		03/04/2021		03/03/2021		03/04/2021		03/03/2021	
			Sample Type	N		N		N		N		N		N	
Analyte	CAS	OSD Tapwater	Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	2000		5.6		U		5.5		U		4100	
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	25		J		3.4		U		3.3		U	
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	31		U		3.4		U		3.3		U	
N-Methylperfluoroocatane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	21		U		2.2		U		2.2		U	
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	680		63		15		230		27		410	
Perfluorobutanoic acid (PFBA)	375-22-4		ng/L	580		16		31		1100		56		1000	
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	30		1.8		J		2.2		U		30	
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	21		U		2.2		U		25		U	
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	860		23		56		2100		100		1500	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	11000		250		150		15000		540		12000	
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	4300		61		67		3800		140		3700	
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	6600		17		2.2		U		990		33	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	22000		J-		250		41		42000		1200	
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	27000		28		8.9		3600		110		2300	

			AOP	PAAF – Loading Platform		Michaelsville Landfill									
			Location	APG-LOADING-PAD-1		APG-WES-M09		APG-WES-M14		APG-WES-M17		APG-WES-M18		APG-WES-M21	
			Sample/Parent ID	APG-LOADING-PAD-1-GW-030421		APG-WES-M09-032021		APG-WES-M14-032021		APG-WES-M17-032021		APG-WES-M18-032021		APG-WES-M21-032021	
			Sample Date	03/04/2021		03/20/2021		03/20/2021		03/20/2021		03/20/2021		03/20/2021	
			Sample Type	N		N		N		N		N		N	
			Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
Analyte	CAS	OSD Tapwater	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	4.6	U	4.2	U	4.3	U	4.4	U	4.7	U	4.5	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	2.8	U	2.5	U	2.6	U	2.6	U	2.8	U	3.0	U
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	2.8	U	2.5	U	2.6	U	2.6	U	2.8	U	3.0	UJ
N-Methylperfluoroctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	1.8	U	1.7	U	1.7	U	1.8	U	1.9	U	2.0	UJ
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	1.8	U	8.9		5.6		4.9		1.9	U	2.5	
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	4.6	U	53	J+	27		390		4.7	U	5.1	
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	1.8	U	1.7	U	1.7	U	1.8	U	1.9	U	2.0	
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	1.8	U	1.7	U	1.7	U	1.8	U	1.9	U	2.0	UJ
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	1.8	U	15		7.3		17		1.9	U	8.5	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	1.8	U	16		21		11		3.6		5.9	
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	1.8	U	37		17		35		1.9	U	16	
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	1.8	U	3.8		1.7	U	1.8	U	1.9	U	2.0	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	5.7		34		36		5.8		1.0	J	2.9	
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	1.8	U	52		29		54		2.5		8.6	

AOPI			Bldg 300-Former Fire Station_Bldg 250 Supply Wells						
Location			APG-BLDG-250-1	APG-BLDG-250-1	APG-BLDG-250-2	APG-BLDG-250-3	APG-BLDG-250-4	APG-BLDG-250-5	
Sample/Parent ID			APG-BLDG-250-PW-1-1-GW-030921	APG-DUP-02-030921 / APG-BLDG-250-PW-1-1-GW-030921	APG-BLDG-250-PW-2-1-GW-030921	APG-BLDG-250-PW-3-1-GW-030921	APG-BLDG-250-PW-4-1-GW-030921	APG-BLDG-250-PW-5-1-GW-030921	
Sample Date			03/09/2021	03/09/2021	03/09/2021	03/09/2021	03/09/2021	03/09/2021	
Sample Type			N	FD	N	N	N	N	
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	
Analyte	CAS	OSD Tapwater	Units	Result	Qual	Result	Qual	Result	Qual
PFAS									
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	4.4	U	4.3	U	4.2	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	2.6	U	2.6	U	2.5	U
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	2.6	U	2.6	U	2.5	U
N-Methylperfluoroctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	1.8	U	1.7	U	1.7	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	1.8	U	1.7	U	1.7	U
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	4.4	U	4.3	U	4.2	U
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	1.8	U	1.7	U	1.7	U
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	1.8	U	1.7	U	1.7	U
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	1.8	U	1.7	U	1.7	U
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	1.8	U	1.7	U	1.7	U
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	1.8	U	1.7	U	1.7	U
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	1.8	U	1.7	U	1.7	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	1.8	U	1.7	U	1.7	U
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	1.8	U	1.7	U	1.7	U

			AOP#	Bldg 300-Former Fire Station_Bldg 250 Supply Wells		Bldg 300-Former Fire Station_Bldg 250 Supply Wells		Building 2200 – Current Aberdeen Fire Station		Building 2308 – Fire Department Storage Building		Biosolid Application Field B		AA5 Range	
Location				APG-BLDG-300-1		APG-BLDG-300-2		APG-BLDG-2200-1		APG-BLDG-2308-1		APG-FTA-M10		APG-AA5-1	
Sample/Parent ID				APG-BLDG-300-1-GW-031521		APG-BLDG-300-2-GW-031521		APG-BLDG-2200-1-GW-031821		APG-BLDG-2308-1-GW-031221		APG-FTA-M10-030221		APG-AA5-1-GW-031621	
Sample Date				03/15/2021		03/15/2021		03/18/2021		03/12/2021		03/02/2021		03/16/2021	
Sample Type				N		N		N		N		N		N	
Analyte	CAS	OSD Tapwater	Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	58		11		19		220		10		5200	J-
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	2.9	U	3.6	U	4.0		3.2	U	2.6	U	67	
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	2.9	U	3.6	U	3.1	U	3.2	U	2.6	U	34	U
N-Methylperfluoroocatane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	1.9	U	2.4	U	2.1	U	2.1	U	1.7	U	23	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	1.6	J	54		41		43		41		5000	
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	7.6		31		86		120		40		3000	
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	1.9	U	2.4	U	4.4		1.3	J	1.7	U	93	
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	1.9	U	2.4	U	2.1	U	2.1	U	1.7	U	23	U
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	8.2		36		140		210		95		3500	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	27		350		340		990		2500		42000	EJ
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	19		110		290		380		140		16000	
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	3.5		5.5		15		24		1.7	U	650	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	170		220		180		210		14		64000	EJ
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	9.7		83		66		190		49		4200	

			AOP	Poverty Island Minefield Range		Poverty Island Range 12		Poverty Island Range 12		Poverty Island Range 12		EF-15		Fuze Range	
			Location	APG-MINEFIELD-1		APG-PI-12-1		APG-PI-12-2		APG-PI-12-2		APG-EF15-1		APG-FUZE-1	
			Sample/Parent ID	APG-PI-MINEFIELD-1-GW-031521		APG-PI-12-1-GW-031521		APG-P1-12-2-GW-031821		APG-DUP-08-031821 / APG-P1-12-2-GW-031821		APG-EF15-1-GW-031621		APG-FUZE-1-GW-031621	
			Sample Date	03/15/2021		03/15/2021		03/18/2021		03/18/2021		03/16/2021		03/16/2021	
			Sample Type	N		N		N		FD		N		N	
Analyte	CAS	OSD Tapwater	Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	29		1900		7900	J	4200	J	19		8500	J-
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	6.4		1600		610		590		4.1	U	690	
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	3.5	U	3.6	U	30	U	36	U	4.1	U	38	U
N-Methylperfluoroocatane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	2.4	U	2.4	U	20	U	24	U	2.8	U	25	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	7.6		47		480		420		440		91	
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	64		370		1300		1200		39		2300	
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	17		48		12	J	22	J	8.9		260	
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	2.4	U	2.4	U	20	U	24	U	2.8	U	25	U
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	140		650		1200		1100		76		8000	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	53		610		3100		2800		220		4400	
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	140		1200		4800		4300		78		14000	
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	82		120		190		180		48		2300	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	260		3000		4800		5100		1300		4300	
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	160		330		1200		1100		170		7800	

			AOP	Biosolid Application Field S-6		Building E5005 - Edgewood Fire Training Area		Building E5180 - Edgewood Fire Station		Building E5180 - Edgewood Fire Station		Biosolid Application Field D		CASY Site	
			Location	APG-BAF-S6-1		APG-BLDG-E5005-1		APG-BLDG-E5180-1		APG-BLDG-E5180-2		APG-BAF-D-1		APG-CASEY-YARD-1	
			Sample/Parent ID	APG-BAF-S6-1-GW-031621		APG-BLDG-E5005-1-GW-042221		APG-BLDG-E5180-1-GW-031721		APG-BLDG-E5180-2-GW-031721		APG-BAF-D-1-GW-030321		APG-CASEY-YARD-1-GW-031921	
			Sample Date	03/16/2021		04/22/2021		03/17/2021		03/17/2021		03/03/2021		03/19/2021	
			Sample Type	N		N		N		N		N		N	
Analyte	CAS	OSD Tapwater	Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	29		6.6	U	790		380		5.4	U	5.1	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	2.4	J	4.0	U	32	U	35	U	3.2	U	3.1	U
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	3.4	U	4.0	U	32	U	35	U	3.2	U	3.1	U
N-Methylperfluoroocatane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	2.3	U	2.7	U	21	U	23	U	2.2	U	2.0	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	1.6	J	2.7	U	830		220		27		18	
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	12		6.1	J	700		820		10		8.8	
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	2.0	J	1.5	J	21	U	23	U	2.2	U	2.0	U
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	2.3	U	2.7	U	21	U	23	U	2.2	U	2.0	U
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	13		4.4		970		3000		18		4.5	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	9.7		22		4300		10000		760		120	
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	23		5.4		2900		3300		54		25	
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	4.3		5.6		49		1100		3.7		2.0	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	34		67		530		9300		86		130	
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	22		15		2700		6500		23		9.5	

			AOP	G-Street Plane Crash		Noble Road - Former Fire Training Area		Noble Road - Former Fire Training Area		Weide Airfield Building E4040		Weide Airfield – Building E4081		Weide Airfield - Tarmac Area	
			Location	APG-G-STREET-1		APG-NOBLE-ROAD-1		APG-NOBLE-ROAD-1		APG-BLDG-E4040-1		APG-BLDG-E4081-1		APG-WEIDE-1	
			Sample/Parent ID	APG-G-STREET-1-GW-031921		APG-NOBLE-ROAD-1-GW-031721		APG-DUP-07-031721 / APG-NOBLE-ROAD-1-GW-031721		APG-BLDG-E4040-1-GW-031921		APG-BLDG-E4081-1-GW-031721		APG-WEIDE-1-GW-031721	
			Sample Date	03/19/2021		03/17/2021		03/17/2021		03/19/2021		03/17/2021		03/17/2021	
			Sample Type	N		N		FD		N		N		N	
Analyte	CAS	OSD Tapwater	Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	5.5	U	5.5	U	5.5	U	4.6	J	14		37	
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	3.3	U	3.3	U	3.3	U	3.2	U	3.5	U	4.1	U
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	3.3	U	3.3	U	3.3	U	3.2	U	3.5	U	4.1	U
N-Methylperfluoroctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	2.2	U	2.2	U	2.2	U	2.1	U	2.3	U	2.8	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	20		30		29		2.0	J	2.3	U	3.1	
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	11		36		35		8.2		5.8	U	7.1	J+
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	2.2	U	2.2	U	2.2	U	2.1	U	2.3	U	1.5	J
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	2.2	U	2.2	U	2.2	U	2.1	U	2.3	U	2.8	U
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	9.3		22		22		11		2.9		11	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	110		580		540		7.5		4.6		16	
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	47		55		54		14		5.7		22	
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	2.2	U	14		15		2.1	U	2.0	J	4.9	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	5.0		740		700		5.0		33		35	
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	58		170		170		15		5.1		17	

			AOP	H-Field - Helicopter Fire Response Area		Biosolid Application Field E		ABR-3		ABR-6		ABR-7		PAAF Runways	
			Location	APG-HELI-FIRE-1		APG-BAF-E-1		APG-ABR3-1		APG-ABR6-1		APG-ABR7-1		APG-WB-MW-11A	
			Sample/Parent ID	APG-HELI-FIRE-1-GW-031221		APG-BAF-E-1-GW-030321		APG-ABR3-1-GW-030821		APG-ABR6-1-GW-030521		APG-ABR7-1-GW-030521		APG-WB-MW-11A-030921	
			Sample Date	03/12/2021		03/03/2021		03/08/2021		03/05/2021		03/05/2021		03/09/2021	
			Sample Type	N		N		N		N		N		N	
Analyte	CAS	OSD Tapwater	Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	3.8	J-	4.8	U	330		250		5.5	U	4.2	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	2.8	U	2.9	U	1300		39		3.3	U	2.5	U
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	2.8	U	2.9	U	38	U	3.4	U	3.3	U	2.5	U
N-Methylperfluoroctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	1.9	U	1.9	U	15	JN	2.3	U	2.2	U	1.7	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	4.8		1.9	U	140		7.7		4.2		1.3	J
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	5.3		4.8	U	150		23		21		4.2	U
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	1.9	U	1.9	U	130		2.3	U	2.2	U	1.7	U
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	1.9	U	1.9	U	26	U	2.3	U	2.2	U	1.7	U
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	2.1		1.3	J	260		31		15		1.7	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	84		5.6		5900		190		92		7.4	
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	10		2.3		1100		82		35		2.1	
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	1.3	J	1.9	U	320		45		2.2	U	1.7	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	200		11		17000		14000		24		21	J
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	8.1		2.3		1700		110		60		8.1	

			AOP	PAAF Runways		PAAF - Airfield Boneyard									
			Location	APG-WB-MW-14A		APG-BONEYARD-1		APG-BONEYARD-2		APG-BONEYARD-3		APG-BONEYARD-4		APG-BONEYARD-5	
			Sample/Parent ID	APG-WB-MW-14A-030921		APG-BONEYARD-1-GW-031121		APG-BONEYARD-2-GW-030821		APG-BONEYARD-3-GW-030821		APG-BONEYARD-4-GW-030821		APG-BONEYARD-5-GW-030821	
			Sample Date	03/09/2021		03/11/2021		03/08/2021		03/08/2021		03/08/2021		03/08/2021	
			Sample Type	N		N		N		N		N		N	
Analyte	CAS	OSD Tapwater	Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
PFAS			Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	4.3	U	6.8		3.9	J	5.0	U	5.2	J	11	
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	2.6	U	2.9	U	2.9	U	3.0	U	3.2	U	2.0	J
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	2.6	U	2.9	U	2.9	U	3.0	U	3.2	U	3.0	U
N-Methylperfluoroctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	1.7	U	2.0	U	1.9	U	2.0	U	2.1	U	2.0	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	2.5		1.9	J	6.1		2.9		2.1	U	3.5	
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	4.3	U	39		4.9	U	6.6		5.4	U	6.4	
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	1.7	U	2.0	U	1.9	U	2.0	U	2.1	U	2.0	U
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	1.7	U	2.0	U	1.9	U	2.0	U	2.1	U	2.0	U
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	3.3		47		7.7		9.7		3.3		4.2	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	39		27		250		59		13		100	
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	14		72		17		12		4.8		15	
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	1.7	U	10		1.4	J	2.0	U	2.1	U	1.4	J
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	1.4	J	23		110		48		18		92	
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	43		19		84		23		6.2		35	

			AOP	PAAF - Airfield Boneyard		PAAF - Airfield Boneyard		Canal Creek GWTP System		Biosolid Application Field ATC-1		Biosolid Application Field ATC-2		Biosolid Application Field ATC-2	
			Location	APG-BONEYARD-6		APG-BONEYARD-7		APG-GWTP-1		APG-ATC1-1		APG-ATC2-1		APG-ATC2-1	
			Sample/Parent ID	APG-BONEYARD-6-GW-031121		APG-BONEYARD-7-GW-031121		APG-GWTP-1-GW-031021		APG-ATC1-1-GW-121521		APG-ATC2-1-GW-121521		APG-FD-1-GW-121521 / APG-ATC2-1-GW-121521	
			Sample Date	03/11/2021		03/11/2021		03/10/2021		12/15/2021		12/15/2021		12/15/2021	
			Sample Type	N		N		N		N		N		FD	
Analyte	CAS	OSD Tapwater	Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	15		5.1	U	4.0	U	4.3	UJ	4.4	UJ	4.3	UJ
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	3.0	U	3.0	U	2.4	U	2.6	UJ	2.6	UJ	2.6	UJ
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	3.0	U	3.0	U	2.4	U	2.6	UJ	2.6	UJ	2.6	UJ
N-Methylperfluoroctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	2.0	U	2.0	U	1.6	U	1.7	UJ	1.7	UJ	1.7	UJ
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	1.6	J	2.0	U	1.6	U	1.7	UJ	1.7	UJ	1.7	UJ
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	5.0	U	5.1	U	4.0	U	4.3	UJ	4.4	UJ	4.3	UJ
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	2.0	U	2.0	U	1.6	U	1.7	UJ	1.7	UJ	1.7	UJ
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	2.0	U	2.0	U	1.6	U	1.7	UJ	1.7	UJ	1.7	UJ
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	1.5	J	2.0	U	1.6	U	1.7	UJ	1.7	UJ	1.7	UJ
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	26		25		1.6	U	0.96	J	1.7	UJ	1.7	UJ
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	7.5		3.6		1.0	J	1.7	UJ	1.7	UJ	1.7	UJ
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	1.5	J	2.0	U	1.6	U	1.7	UJ	1.7	UJ	1.7	UJ
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	17		1.7	J	1.6	U	1.7	UJ	1.7	UJ	1.7	UJ
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	13		6.9		1.6	U	1.7	UJ	1.0	J	1.0	J

			AOP	Biosolid Application Field E-3		Biosolid Application Field E-4		Biosolid Application Field S-1A		Biosolid Application Field S-3		Ford's Farm		Ford's Farm	
			Location	APG-E3-1		APG-E4-1		APG-S1A-1		APG-S3-1		APG-FF2-1		APG-FF3-1	
			Sample/Parent ID	APG-E3-1-GW-121621		APG-E4-1-GW-121621		APG-S1A-1-GW-121521		APG-S3-1-GW-121521		APG-FF2-1-GW-013122		APG-FF3-1-GW-013122	
			Sample Date	12/16/2021		12/16/2021		12/15/2021		12/15/2021		01/31/2022		01/31/2022	
			Sample Type	N		N		N		N		N		N	
Analyte	CAS	OSD Tapwater	Matrix	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
PFAS															
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2		ng/L	4.4	UJ	4.5	UJ	4.2	UJ	4.5	UJ	4.5	U	4.5	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4		ng/L	2.7	UJ	2.7	UJ	2.5	UJ	2.7	UJ	2.7	U	2.7	U
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6		ng/L	2.7	UJ	2.7	UJ	2.5	UJ	2.7	UJ	2.7	U	2.7	U
N-Methylperfluoroctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9		ng/L	1.8	UJ	1.8	UJ	1.7	UJ	1.8	UJ	1.8	U	1.8	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	601	ng/L	1.8	UJ	1.8	UJ	1.7	UJ	2.2	J	1.8	U	1.8	U
Perfluorobutanoic acid (PFBa)	375-22-4		ng/L	4.4	UJ	4.5	UJ	4.2	UJ	4.5	UJ	4.5	U	4.5	U
Perfluorodecanoic acid (PFDA)	335-76-2		ng/L	1.8	UJ	1.8	UJ	1.7	UJ	1.8	UJ	1.8	U	1.8	U
Perfluorododecanoic acid (PFDoA)	307-55-1		ng/L	1.8	UJ	1.8	UJ	1.7	UJ	1.8	UJ	1.8	U	1.8	U
Perfluoroheptanoic acid (PFHpA)	375-85-9		ng/L	1.8	UJ	1.8	UJ	1.7	UJ	4.5	J	1.8	U	1.8	U
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	39	ng/L	1.8	UJ	0.95	J	1.7	UJ	6.0	J	1.8	U	1.8	U
Perfluorohexanoic acid (PFHxA)	307-24-4		ng/L	1.8	UJ	1.8	UJ	1.7	UJ	4.0	J	1.8	U	1.8	U
Perfluoronanoic acid (PFNA)	375-95-1	6	ng/L	1.8	UJ	1.8	UJ	1.7	UJ	1.8	UJ	1.8	U	1.8	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	4	ng/L	1.8	UJ	1.8	UJ	1.7	UJ	220	J	1.8	U	1.8	U
Perfluorooctanoic acid (PFOA)	335-67-1	6	ng/L	1.8	UJ	1.8	UJ	1.1	J	28	J	1.8	U	1.8	U

Appendix P
Site Inspection Full Analytical Results - Groundwater
USAEC PFAS Preliminary Assessment /Site Inspection
Aberdeen Proving Ground, Maryland



Notes:

1. **Bolded** values indicate the result was detected greater than the limit of detection
2. Gray shaded values indicate the result was detected greater than the 2022 Office of the Secretary of Defense (OSD) risk screening levels, (OSD. 2022. Memorandum: Investigating Per- and Polyfluoroalkyl Substances within the Department of Defense Cleanup Program. July 06).

Acronyms/Abbreviations:

-- = not applicable

% = percent

AOPI = Area of Potential Interest

CAS = Chemical Abstracts Service number

FD = field duplicate sample

ID = identification

N = primary sample

ng/L = nanograms per liter (parts per trillion)

PFAS = per- and polyfluoroalkyl substances

Qual = Qualifier

Qualifier	Description
E	The reported result is above the limit of the calibration range.
J	The analyte was positively identified; however the associated numerical value is an estimated concentration only
J-	The result is an estimated quantity; the result may be biased low.
J+	The result is an estimated quantity; the result may be biased high.
JN	The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
U	The analyte was analyzed for but the result was not detected above the limit of quantitation (LOQ).
UJ	The analyte was analyzed for but was not detected. The reported LOQ is approximate and may be inaccurate or imprecise.

				Sample/Parent ID	APG-IDW-WW-1	
				Sample Date	04/22/2021	
				Sample Type	N	
	Analyte	CAS	Units	Result		Qual
PFAS	4:2 Fluorotelomer sulfonate	757124-72-4	ng/l	1.7		UM
	6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	ng/l	16		M
	8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	ng/l	8.1		
	N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	ng/l	2.6		U
	N-Methylperfluoroocatane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	ng/l	1.7		UM
	Perfluorobutane sulfonic acid (PFBS)	375-73-5	ng/l	1.3		JIM
	Perfluorobutanoic acid (PFBA)	375-22-4	ng/l	15		M
	Perfluorodecane sulfonic acid (PFDS)	335-77-3	ng/l	1.4		JIM
	Perfluorodecanoic acid (PFDA)	335-76-2	ng/l	3.4		
	Perfluorododecanoic acid (PFDoA)	307-55-1	ng/l	1.7		U
	Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	ng/l	1.7		UM
	Perfluoroheptanoic acid (PFHpa)	375-85-9	ng/l	6.5		M
	Perfluorohexane sulfonic acid (PFHxS)	355-46-4	ng/l	12		M
	Perfluorohexanoic acid (PFHxA)	307-24-4	ng/l	16		M
	Perfluorononane sulfonic acid (PFNS)	68259-12-1	ng/l	1.7		UM
	Perfluorononanoic acid (PFNA)	375-95-1	ng/l	5.6		
	Perfluorooctane sulfonamide (PFOSA)	754-91-6	ng/l	3.6		
	Perfluoroctane sulfonic acid (PFOS)	1763-23-1	ng/l	130		
	Perfluooctanoic acid (PFOA)	335-67-1	ng/l	14		
	Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	ng/l	1.7		UM
	Perfluoropentanoic acid (PFPeA)	2706-90-3	ng/l	8.9		M
	Perfluorotetradecanoic acid (PFTeDA)	376-06-7	ng/l	1.7		U
	Perfluorotridecanoic acid (PFTrDA)	72629-94-8	ng/l	1.7		U
	Perfluoroundecanoic acid (PFUdA)	2058-94-8	ng/l	1.2		J
Metal	Arsenic	7440-38-2	µg/L	30.0		U
	Barium	7440-39-3	µg/L	1320		B*+
	Cadmium	7440-43-9	µg/L	5.00		U
	Chromium	7440-47-3	µg/L	15.0		U
	Lead	7439-92-1	µg/L	15.0		U*+
	Mercury	7439-97-6	µg/L	0.200		U
	Selenium	7782-49-2	µg/L	50.0		U*+
	Silver	7440-22-4	µg/L	10.0		U^5-
General Chemistry	Perchlorate	14797-73-0	µg/L	1.0		U
VOC	1,1,1-Trichloroethane	71-55-6	µg/L	1.0		U
	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	1.0		U
	1,1,2-trichloro-1,2,2-trifluoroethane	76-13-1	µg/L	10		U
	1,1,2-Trichloroethane	79-00-5	µg/L	1.0		U
	1,1-Dichloroethane	75-34-3	µg/L	1.0		U
	1,1-Dichloroethene	75-35-4	µg/L	1.0		U
	1,2,4-Trichlorobenzene	120-82-1	µg/L	5.0		U
	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	5.0		U
	1,2-Dibromoethane	106-93-4	µg/L	1.0		U
	1,2-Dichlorobenzene	95-50-1	µg/L	5.0		U
	1,2-Dichloroethane	107-06-2	µg/L	1.0		U
	1,2-Dichloroproppane	78-87-5	µg/L	1.0		U
	1,3-Dichlorobenzene	541-73-1	µg/L	5.0		U
	1,4-Dichlorobenzene	106-46-7	µg/L	5.0		U
	2-Butanone (MEK)	78-93-3	µg/L	10		U
	4-Methyl-2-Pentanone	108-10-1	µg/L	10		U
	Acetone	67-64-1	µg/L	4.3		JM
	Benzene	71-43-2	µg/L	1.0		U
	Bromodichloromethane	75-27-4	µg/L	1.0		U
	Bromoform	75-25-2	µg/L	4.0		U
	Bromomethane	74-83-9	µg/L	1.0		U
	Carbon Disulfide	75-15-0	µg/L	5.0		U
	Carbon Tetrachloride	56-23-5	µg/L	1.0		U
	CFC-11	75-69-4	µg/L	1.0		U
	CFC-12	75-71-8	µg/L	1.0		U
	Chlorobenzene	108-90-7	µg/L	1.0		U
	Chlorodibromomethane	124-48-1	µg/L	1.0		U
	Chloroethane	75-00-3	µg/L	1.0		U
	Chloroform	67-66-3	µg/L	1.0		U
	Chloromethane	74-87-3	µg/L	1.0		U

		Sample/Parent ID	APG-IDW-WW-1	
		Sample Date	04/22/2021	
		Sample Type	N	
Analyte	CAS	Units	Result	Qual
cis-1,2-Dichloroethene	156-59-2	µg/L	1.0	U
cis-1,3-Dichloropropene	10061-01-5	µg/L	1.0	U
Cyclohexane	110-82-7	µg/L	5.0	U
Dichloromethane	75-09-2	µg/L	1.0	U
Ethylbenzene	100-41-4	µg/L	1.0	U
Isopropylbenzene	98-82-8	µg/L	5.0	U
Methyl Acetate	79-20-9	µg/L	5.0	U
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	µg/L	10	U
Methylcyclohexane	108-87-2	µg/L	5.0	U
Methyl-tert-butylether	1634-04-4	µg/L	1.0	U
Styrene (Monomer)	100-42-5	µg/L	5.0	U
Tetrachloroethene	127-18-4	µg/L	1.0	U
Toluene	108-88-3	µg/L	1.0	U
Total Xylenes	1330-20-7	µg/L	6.0	U
trans-1,2-Dichloroethene	156-60-5	µg/L	1.0	U
trans-1,3-Dichloropropene	10061-02-6	µg/L	1.0	U
Trichloroethene	79-01-6	µg/L	1.0	U
Vinyl chloride	75-01-4	µg/L	1.0	U
SVOC	1,1-Biphenyl	µg/L	2.1	U
1,4-Dichlorobenzene	106-46-7	mg/L	0.010	U
2,2-Oxybis(1-Chloropropane)	108-60-1	µg/L	2.1	U
2,4,5-Trichlorophenol	95-95-4	mg/L	0.010	U
2,4,6-Trichlorophenol	88-06-2	mg/L	0.010	U
2,4-Dichlorophenol	120-83-2	µg/L	2.1	U
2,4-Dimethylphenol	105-67-9	µg/L	11	U
2,4-Dinitrophenol	51-28-5	µg/L	32	U
2,4-Dinitrotoluene	121-14-2	mg/L	0.025	U
2,6-Dinitrotoluene	606-20-2	µg/L	2.1	UM
2-Chloronaphthalene	91-58-7	µg/L	1.1	U
2-Chlorophenol	95-57-8	µg/L	2.1	U
2-Methyl-4,6-dinitrophenol	534-52-1	µg/L	22	U
2-Methylnaphthalene	91-57-6	µg/L	0.53	U
2-Methylphenol	95-48-7	mg/L	0.010	U
2-Nitroaniline	88-74-4	µg/L	5.3	U
2-Nitrophenol	88-75-5	µg/L	5.3	U
3,3-Dichlorobenzidine	91-94-1	µg/L	11	U
3-Nitroaniline	99-09-2	µg/L	5.3	U
4-Bromophenyl phenyl ether	101-55-3	µg/L	2.1	U
4-Chloro-3-Methylphenol	59-50-7	µg/L	5.3	U
4-Chlorophenyl phenyl ether	7005-72-3	µg/L	2.1	U
4-Methylphenol	106-44-5	mg/L	0.010	U
4-Nitroaniline	100-01-6	µg/L	3.2	U
4-Nitrophenol	100-02-7	µg/L	32	U
Acenaphthene	83-32-9	µg/L	0.53	UM
Acenaphthylene	208-96-8	µg/L	0.53	UM
Acetophenone	98-86-2	µg/L	5.3	U
Anthracene	120-12-7	µg/L	0.53	UM
Atrazine	1912-24-9	µg/L	5.3	U
Benz(a)anthracene	56-55-3	µg/L	0.53	U
Benzaldehyde	100-52-7	µg/L	5.3	U
Benzo(a)pyrene	50-32-8	µg/L	0.53	U
Benzo(b)fluoranthene	205-99-2	µg/L	0.22	J
Benzo(g,h,i)perylene	191-24-2	µg/L	0.53	UM
Benzo(k)fluoranthene	207-08-9	µg/L	0.53	UM
bis(2-Chloroethoxy)methane	111-91-1	µg/L	2.1	U
bis(2-Chloroethyl)ether	111-44-4	µg/L	2.1	U
bis(2-Ethylhexyl)phthalate	117-81-7	µg/L	7.5	
Butyl benzyl phthalate	85-68-7	µg/L	5.3	U
Caprolactam	105-60-2	µg/L	7.4	U
Carbazole	86-74-8	µg/L	2.1	U
Chrysene	218-01-9	µg/L	0.22	J

			Sample/Parent ID	APG-IDW-WW-1	
			Sample Date	04/22/2021	
			Sample Type	N	
Analyte	CAS	Units	Result	Qual	
Dibenz(a,h)anthracene	53-70-3	µg/L	0.53	U	
Dibenzofuran	132-64-9	µg/L	2.1	U	
Diethyl phthalate	84-66-2	µg/L	5.3	U	
Dimethyl phthalate	131-11-3	µg/L	5.3	U	
Di-n-butyl phthalate	84-74-2	µg/L	5.3	U	
Di-n-octyl phthalate	117-84-0	µg/L	12	U	
Fluoranthene	206-44-0	µg/L	0.32	J	
Fluorene	86-73-7	µg/L	0.53	U	
Hexachloro-1,3-butadiene	87-68-3	mg/L	0.010	U	
Hexachlorobenzene	118-74-1	mg/L	0.0025	UM	
Hexachlorocyclopentadiene	77-47-4	µg/L	12	U	
Hexachloroethane	67-72-1	mg/L	0.025	U	
Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	0.53	U	
Isophorone	78-59-1	µg/L	2.1	U	
Naphthalene	91-20-3	µg/L	0.53	UM	
Nitrobenzene	98-95-3	mg/L	0.010	UM	
N-Nitrosodi-n-propylamine	621-64-7	µg/L	2.1	U	
N-Nitrosodiphenylamine	86-30-6	µg/L	2.1	U	
p-Chloroaniline	106-47-8	µg/L	11	U	
Pentachlorophenol	87-86-5	mg/L	0.025	U	
Phenanthrene	85-01-8	µg/L	0.53	U	
Phenol	108-95-2	µg/L	2.1	UM	
Pyrene	129-00-0	µg/L	0.32	JM	
Pyridine	110-86-1	mg/L	0.025	U	
OC Pesticides	2-(4-chloro-2-methylphenoxy) acetic acid (MCPA)	µg/L	200	U	
	2,2-Dichloropropionic acid, Dalapon	µg/L	6.3	U	
	2,4,5-T	µg/L	0.15	U	
	2,4,5-TP (Silvex)	mg/L	0.0050	U	
	2,4,6-Trinitrotoluene	µg/L	0.80	U	
	2,4-D	mg/L	0.050	U	
	2,4-DB	µg/L	1.5	U	
	4,4-DDD	µg/L	0.15	U	
	4,4-DDE	µg/L	0.15	U	
	4,4-DDT	µg/L	0.15	U	
	Aldrin	µg/L	0.10	U*-	
	Alpha-BHC	µg/L	0.10	U^c	
	Alpha-chlordane	µg/L	0.10	U	
	Beta-BHC	µg/L	0.10	U	
	Chlordane	mg/L	0.025	UM	
	Delta-BHC	µg/L	0.10	U^c	
	Dicamba	µg/L	0.29	U	
	Dichlorprop	µg/L	0.70		
	Dieldrin	µg/L	0.15	U	
	Endosulfan I	µg/L	0.10	U	
	Endosulfan II	µg/L	0.20	U	
	Endosulfan sulfate	µg/L	0.15	U	
	Endrin	µg/L	0.15	U	
	Endrin aldehyde	µg/L	0.51	U	
	Endrin ketone	µg/L	0.15	U	
	Gamma-BHC	µg/L	0.10	U^c	
	gamma-Chlordane	µg/L	0.20	U	
	Heptachlor	µg/L	0.10	U	
	Heptachlor epoxide	µg/L	0.10	U	
	Hexahydro-1,3,5-trinitro-1,3,5-triazine	µg/L	0.80	U	
	MCPP	µg/L	200	U	
	Methoxychlor	µg/L	0.56	U^c	
	Octahydro-1,3,5,7-tetrinitro-1,3,5,7-tetrazocine	µg/L	0.60	U	
	Pentachlorophenol	µg/L	0.037	J^c	
	Toxaphene	µg/L	5.1	UM^c	

Notes:

1. **Bolded** values indicate the result was detected greater than the limit of detection

Acronyms/Abbreviations:

-- = not applicable
% = percent
CAS = Chemical Abstracts Service number
ID = identification
mg/L = milligrams per liter
N = primary sample
ng/L = nanograms per liter (parts per trillion)
PFAS = per- and polyfluoroalkyl substances
Qual = qualifier
SVOC = semivolatile organic compound
ug/L = micrograms per liter
ug/kg = micrograms per kilogram
VOC = volatile organic compound

Qualifier	Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^S-	Linear Range Check (LRC) is outside acceptance limits, low biased.
^C	CCV Recovery is outside acceptance limits.
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
I	Value is EMPC (estimated maximum possible concentration).
J	The analyte was positively identified; however the associated numerical value is an estimated concentration only
M	Manually intergrated compound
U	The analyte was analyzed for but the result was not detected above the method detection limit.

AOPI			Fuze Range		Fuze Range		Weide Airfield – Building E4081		Weide Airfield – Building E4081		H-Field - Tank Fire Response Area	
Location			APG-FUZE-1		APG-FUZE-1		APG-BLDG-E4081-1		APG-BLDG-E4081-2		APG-TANKFIRE-1	
Sample/Parent ID			APG-FUZE-1-SW-031621		APG-DUP-06-031621 / APG-FUZE-1-SW-031621		APG-BLDG-E4081-1-SW-031021		APG-BLDG-E4081-2-SW-031021		APG-TANK-FIRE-1-SW-031021	
Sample Date			03/16/2021		03/16/2021		03/10/2021		03/10/2021		03/10/2021	
Sample Type			N		FD		N		N		N	
Matrix			Surface Water		Surface Water		Surface Water		Surface Water		Surface Water	
Analyte	CAS	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
PFAS												
6:2 Fluorotelomer sulfonic acid (6:2 FTSA)	27619-97-2	ng/L	930		850		5.4	U	4.6	U	4.2	U
8:2 Fluorotelomer sulfonic acid (8:2 FTSA)	39108-34-4	ng/L	270		330		3.3	U	2.8	U	2.5	U
N-Ethyl perfluoroctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	ng/L	2.6	U	28	U	3.3	U	2.8	U	2.5	U
N-Methylperfluoroocatane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	ng/L	1.8	U	19	U	2.2	U	1.9	U	1.7	U
Perfluorobutane sulfonic acid (PFBS)	375-73-5	ng/L	6.3		19	U	13		14		0.97	J
Perfluorobutanoic acid (PFBA)	375-22-4	ng/L	250		260		9.4		5.1		4.9	
Perfluorodecanoic acid (PFDA)	335-76-2	ng/L	310		350		2.2	U	1.9	U	0.87	J
Perfluorododecanoic acid (PFDoA)	307-55-1	ng/L	16		15	J	2.2	U	1.9	U	1.7	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	ng/L	860		870		5.2		1.6	J	3.0	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	ng/L	530		530		2.1	J	1.9	U	1.3	J
Perfluorohexanoic acid (PFHxA)	307-24-4	ng/L	1300		1200		9.5		2.7		4.4	
Perfluorononanoic acid (PFNA)	375-95-1	ng/L	520		540		2.2		1.9	U	1.9	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	ng/L	400		400		2.4		1.9	U	4.3	
Perfluoroctanoic acid (PFOA)	335-67-1	ng/L	880		930		6.3		1.2	J	2.6	
Perfluoropentanoic acid (PPPeA)	2706-90-3	ng/L	1100		1100		7.5		2.1		4.1	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	ng/L	1.3	J+	19	UJ	2.2	U	1.9	U	1.7	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	ng/L	1.8		19	U	2.2	U	1.9	U	1.7	U
Perfluoroundecanoic acid (PFUdA)	2058-94-8	ng/L	88		98		2.2	U	1.9	U	1.7	U

Appendix P
USAEC PFAS Preliminary Assessment /Site Inspection
Site Inspection Full Analytical Results - Surface Water
Aberdeen Proving Ground, Maryland



Notes:

1. **Bolded** values indicate the result was detected greater than the limit of detection

Acronyms/Abbreviations:

-- = not applicable

% = percent

AOPI = Area of Potential Interest

CAS = Chemical Abstracts Service number

FD = field duplicate sample

ID = identification

N = primary sample

ng/L = nanograms per liter (parts per trillion)

PFAS = per- and polyfluoroalkyl substances

Qual = Qualifier

Qualifier	Description
J	The analyte was positively identified; however the associated numerical value is an estimated concentration only
J+	The result is an estimated quantity; the result may be biased high.
U	The analyte was analyzed for but the result was not detected above the limit of quantitation (LOQ).
UJ	The analyte was analyzed for but was not detected. The reported LOQ is approximate and may be inaccurate or imprecise.