

Joint Base Andrews
Case No. 26-0420PG
Surface Water Samples

MDE sample review highlights:

1. These surface water samples were collected from near the headwaters of Piscataway Creek.
2. Locations Sample 2, Sample 1, and Sample 3 represent sample locations as you proceed downstream from the headwaters.
3. Sample location 4 is at the mouth of Piscataway Creek at Farmington Landing,
4. Identified constituents of concern demonstrate the presence of dissolved phase fuel impacts.
5. Identified constituents of concern decrease in concentration as the stream flows downstream from the headwaters.
6. Concentrations of identified constituents of concern continue to decrease over time.
7. These results demonstrate stream containment efforts are capturing free phase fuel.

Constituent of Concern	Units	Surface Water Action Level	Laboratory Reported Concentration (parts per billion)										
			Sample 1 - Collection location on Base										
Sample Collector			MDE	MDE	JBA	JBA	JBA	JBA ~	MDE	JBA~	JBA	MDE	JBA
Sample Date			4/13/2026	4/20/2026	4/20/2026	4/28/2026	5/4/2026	5/11/2026	5/18/2026	5/18/2026	6/3/2026	6/24/2026	6/24/2026
n-Butylbenzene	ppb	2 ppb	1.4J	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Benzene	ppb	2 ppb	<1.0	<1.0	<0.5*	<i>pending</i>	<0.5*	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Ethylbenzene	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Naphthalene	ppb	2 ppb	11.8	2.7	NA	<i>pending</i>	NA	<2.0 *	<1.0	<2.0 *	<2.0	<i>pending</i>	<i>pending</i>
Toluene	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Total Xylenes	ppb	2 ppb	2.6J	3.2	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
1,2,4-Trimethylbenzene	ppb	2 ppb	11	6.2	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
1,3,5-Trimethylbenzene	ppb	2 ppb	2.8	2.1	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Tetrachloroethene (PCE)	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Trichloroethene (TCE)	ppb	2 ppb	<1.0	<1.0	<0.7*	<i>pending</i>	<0.7*	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
TPH-DRO	ppb	47 ppb	441	296	610	<i>pending</i>	216J	228	280	392	111	<i>pending</i>	<i>pending</i>
TPH-GRO	ppb	47 ppb	75.1	51.4	<169	<i>pending</i>	<169	30.8	<45.0	21.1	23.6	<i>pending</i>	<i>pending</i>
PFAS Compounds													
6:2FTS	ppt	NA	245	206	225	<i>pending</i>	207	202	NA	202	249	<i>pending</i>	<i>pending</i>

PFBA	ppt	NA	64.2	63	74.5	<i>pending</i>	64.6	61.9	NA	62.7	74.5	<i>pending</i>	<i>pending</i>
PFBS-L	ppt	NA	95.5	83.1	115	<i>pending</i>	104	96.5	NA	105	121	<i>pending</i>	<i>pending</i>
PFHpA	ppt	NA	84.6	78.5	93.9	<i>pending</i>	82.5	83.4	NA	88.6	100	<i>pending</i>	<i>pending</i>
PFHpS-L	ppt	NA	27.2	24.7	31.7	<i>pending</i>	36.3	42.3	NA	39.9	43.5	<i>pending</i>	<i>pending</i>
PFHxA	ppt	NA	343	337	410	<i>pending</i>	344	318 E	NA	343 E	400	<i>pending</i>	<i>pending</i>
PFHxS Total	ppt	NA	1130	950	1350	<i>pending</i>	1320	1250 E	NA	1340 E	1440	<i>pending</i>	<i>pending</i>
PFNA Total	ppt	NA	22.3	20.7	22	<i>pending</i>	19	20.5	NA	20.2	22.5	<i>pending</i>	<i>pending</i>
PFOA Total	ppt	NA	514	449	512	<i>pending</i>	516	453 E	NA	480 E	570	<i>pending</i>	<i>pending</i>
PFOS Total	ppt	NA	946	872	1120	<i>pending</i>	1080	1250 E	NA	1230 E	1280	<i>pending</i>	<i>pending</i>
PFOSA Total	ppt	NA	6.7	7.13	5.3	<i>pending</i>	3.96	4.58	NA	6.13	8.85	<i>pending</i>	<i>pending</i>
PFPeA	ppt	NA	211	191	234	<i>pending</i>	206	191	NA	199	230	<i>pending</i>	<i>pending</i>
PFPeS-L	ppt	NA	103	87.1	132	<i>pending</i>	144	133	NA	146	163	<i>pending</i>	<i>pending</i>

Sample 2 - Collection location on Base													
Sample Collector			MDE	MDE	JBA	JBA	JBA	JBA~	MDE	JBA ~	JBA	MDE	JBA
Sample Date			4/13/2026	4/20/2026	4/20/2026	4/28/2026	5/4/2026	5/11/2026	5/18/2026	5/18/2026	6/3/2026	6/24/2026	6/24/2026
n-Butylbenzene	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Benzene	ppb	2 ppb	<1.0	<1.0	<0.5*	<i>pending</i>	<0.5*	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Ethylbenzene	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Naphthalene	ppb	2 ppb	10	2.9	NA	<i>pending</i>	NA	<2.0 *	<1.0	<2.0 *	<2.0	<i>pending</i>	<i>pending</i>
Toluene	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	0.321*	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Total Xylenes	ppb	2 ppb	2.5J	2.9	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
1,2,4-Trimethylbenzene	ppb	2 ppb	9.9	6.2	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
1,3,5-Trimethylbenzene	ppb	2 ppb	2.5	2	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Tetrachloroethene (PCE)	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
Trichloroethene (TCE)	ppb	2 ppb	<1.0	<1.0	<0.7*	<i>pending</i>	<0.7*	<1.0 *	<1.0	<1.0 *	<1.0	<i>pending</i>	<i>pending</i>
TPH-DRO	ppb	47 ppb	470	298	441	<i>pending</i>	573	354	622	8840	113	<i>pending</i>	<i>pending</i>
TPH-GRO	ppb	47 ppb	78.7	<45.0	<169	<i>pending</i>	<169	74*	<45.0	21.2	21.6	<i>pending</i>	<i>pending</i>
PFAS Compounds													
6:2FTS	ppt	NA	249	229	NA	<i>pending</i>	239	222	NA	242	263	<i>pending</i>	<i>pending</i>
PFBA	ppt	NA	63.8	66.1	NA	<i>pending</i>	72.9	68.1	NA	70.9	75.3	<i>pending</i>	<i>pending</i>
PFBS-L	ppt	NA	95.4	83.8	NA	<i>pending</i>	120	101	NA	117	124	<i>pending</i>	<i>pending</i>
PFHpA	ppt	NA	87.2	83.86	NA	<i>pending</i>	95.4	88.3	NA	98.7	104	<i>pending</i>	<i>pending</i>
PFHpS-L	ppt	NA	26.5	29.2	NA	<i>pending</i>	49.1	44.4	NA	48.1	52.4	<i>pending</i>	<i>pending</i>
PFHxA	ppt	NA	350	354	NA	<i>pending</i>	399	355E	NA	374 E	406	<i>pending</i>	<i>pending</i>
PFHxS Total	ppt	NA	1080	1030	NA	<i>pending</i>	1530	1290E	NA	1510 E	1620	<i>pending</i>	<i>pending</i>

PFNA Total	ppt	NA	21.7	19.6	NA	<i>pending</i>	23	21.1	NA	22.2	24.2	<i>pending</i>	<i>pending</i>
PFOA Total	ppt	NA	526	443	NA	<i>pending</i>	564	484E	NA	549 E	604	<i>pending</i>	<i>pending</i>
PFOS Total	ppt	NA	866	953	NA	<i>pending</i>	1500	1320 E	NA	1390 E	1430	<i>pending</i>	<i>pending</i>
PFOSA Total	ppt	NA	5.57	6.12	NA	<i>pending</i>	5.02	5.06	NA	5.8	11.1	<i>pending</i>	<i>pending</i>
PFPeA	ppt	NA	211	204	NA	<i>pending</i>	232	213	NA	226	238	<i>pending</i>	<i>pending</i>
PFPeS-L	ppt	NA	96	92.5	NA	<i>pending</i>	176	139	NA	183 E	192	<i>pending</i>	<i>pending</i>

Samples 3 - Collected off -Base (38.78757, -76.86382)

Sample Collector			MDE	MDE	JBA	JBA	JBA	JBA ~	MDE	JBA ~	JBA	MDE	JBA
Sample Date			4/13/2026	4/20/2026	4/20/2026	4/28/2026	5/4/2026	5/11/2026	5/18/2026	5/18/2026	6/3/2026	6/24/2026	6/24/2026
n-Butylbenzene	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0 *	<i>pending</i>	<i>pending</i>
Benzene	ppb	2 ppb	<1.0	<1.0	<0.5*	<i>pending</i>	<0.5*	<1.0 *	<1.0	<1.0 *	<1.0 *	<i>pending</i>	<i>pending</i>
Ethylbenzene	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0 *	<i>pending</i>	<i>pending</i>
Naphthalene	ppb	2 ppb	4.8	3.6	NA	<i>pending</i>	NA	<2.0 *	<1.0	<2.0 *	<2.0 *	<i>pending</i>	<i>pending</i>
Toluene(ppb)	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0 *	<i>pending</i>	<i>pending</i>
Total Xylenes	ppb	2 ppb	<1.0	4.5	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0 *	<i>pending</i>	<i>pending</i>
1,2,4-Trimethylbenzene	ppb	2 ppb	2.8	6.4	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0 *	<i>pending</i>	<i>pending</i>
1,3,5-Trimethylbenzene	ppb	2 ppb	<1.0	2.1	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0 *	<i>pending</i>	<i>pending</i>
Tetrachloroethene (PCE)	ppb	2 ppb	<1.0	<1.0	NA	<i>pending</i>	NA	<1.0 *	<1.0	<1.0 *	<1.0 *	<i>pending</i>	<i>pending</i>
Trichloroethene (TCE)	ppb	2 ppb	<1.0	<1.0	<0.7*	<i>pending</i>	<0.7*	<1.0 *	<1.0	<1.0 *	<1.0 *	<i>pending</i>	<i>pending</i>
TPH-DRO	ppb	47 ppb	378	289	944	<i>pending</i>	411	445	75.7	215	181	<i>pending</i>	<i>pending</i>
TPH-GRO	ppb	47 ppb	<45.0	<45.0	<169	<i>pending</i>	<169	22.1	<45.0	19.9	90.5	<i>pending</i>	<i>pending</i>
PFAS compounds													
6:2FTS	ppt	NA	194	184	188	<i>pending</i>	102	192	NA	198	223	<i>pending</i>	<i>pending</i>
PFBA	ppt	NA	57.2	62.1	69.7	<i>pending</i>	32.5	60.7	NA	61.7	67.5	<i>pending</i>	<i>pending</i>
PFBS-L	ppt	NA	82.4	75.1	98.8	<i>pending</i>	52.7	91.8	NA	97.9	111	<i>pending</i>	<i>pending</i>
PFHpA	ppt	NA	75.4	70.9	82.2	<i>pending</i>	42.1	80.6	NA	85.1	92	<i>pending</i>	<i>pending</i>
PFHpS-L	ppt	NA	24.3	21.8	28.6	<i>pending</i>	22.1	33.6	NA	41	50.5	<i>pending</i>	<i>pending</i>
PFHxA	ppt	NA	299	328	395	<i>pending</i>	176	316 E	NA	321E	369	<i>pending</i>	<i>pending</i>
PFHxS Total	ppt	NA	1000	872	1110	<i>pending</i>	672	1130 E	NA	1290 E	1400	<i>pending</i>	<i>pending</i>
PFNA Total	ppt	NA	20.2	19.2	18.8	<i>pending</i>	9.61	18.7	NA	19.1	23.8	<i>pending</i>	<i>pending</i>
PFOA Total	ppt	NA	478	406	458	<i>pending</i>	260	434 E	NA	488 E	539	<i>pending</i>	<i>pending</i>
PFOS Total	ppt	NA	869	733	964	<i>pending</i>	615	1110 E	NA	1200 E	1520	<i>pending</i>	<i>pending</i>
PFOSA Total	ppt	NA	7.92	6.38	4.5	<i>pending</i>	4.53	3.82	NA	4.58	10.4	<i>pending</i>	<i>pending</i>
PFPeA	ppt	NA	183	186	212	<i>pending</i>	99.2	184	NA	193	208	<i>pending</i>	<i>pending</i>
PFPeS-L	ppt	NA	84.7	78	110	<i>pending</i>	76.9	110	NA	145	157	<i>pending</i>	<i>pending</i>

**Samples 4 - Farmington Landing on Wharf Road, Accokeek MD
(38.694573, -77.013863)**

Sample Collector			MDE	
Sample Date			6/24/2026	
n-Butylbenzene	ppb	2 ppb	<i>pending</i>	
Benzene	ppb	2 ppb	<i>pending</i>	
Ethylbenzene	ppb	2 ppb	<i>pending</i>	
Naphthalene	ppb	2 ppb	<i>pending</i>	
Toluene(ppb)	ppb	2 ppb	<i>pending</i>	
Total Xylenes	ppb	2 ppb	<i>pending</i>	
1,2,4-Trimethylbenzene	ppb	2 ppb	<i>pending</i>	
1,3,5-Trimethylbenzene	ppb	2 ppb	<i>pending</i>	
Tetrachloroethene (PCE)	ppb	2 ppb	<i>pending</i>	
Trichloroethene (TCE)	ppb	2 ppb	<i>pending</i>	
TPH-DRO	ppb	47 ppb	<i>pending</i>	
TPH-GRO	ppb	47 ppb	<i>pending</i>	

Notes:

J or E - estimated value

< - less than

ppb - parts per billion, ug/L

ppb - parts per trillion, ng/L

NA - Not analyzed

* Analyzed outside of required method or method standards

~ MDE received data on 6/16/26