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ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

November 26, 2019

Brian Jankauskas, P.E.
NYSDEC – Division of Environmental Remediation
625 Broadway
Albany, NY 12233

RE: Brookhaven Calabro Airport, 135 Dawn Drive, Shirley, NY; Spill No. 18-10934 – Investigation Summary

Dear Mr. Jankauskas,

The following summarizes the investigation activities conducted at the above referenced location as per New York State Department of Environmental Conservation (NYSDEC) Standby Contractor Authorization Form dated 2/14/2019 (Callout ID: 136708). The investigation activities consisted of groundwater sample collection from fourteen temporary locations across four different properties: Brookhaven Calabro Airport, Mastic Fire Department (FD) Station 1, Manorville FD Silas Carter Road, and Manorville FD Cranford Boulevard. No samples were collected from the fifth targeted property (Ridge FD Company 2); this is discussed in further detail below. A site location map with all properties is provided as **Figure 1**. A site map illustrating the temporary sampling locations for each property is provided as **Figures 2 – 5**.

Groundwater Sample Collection

Between June 24 and July 2, 2019, EAR installed temporary borings at fourteen (EP-1 thru EP-8 and EP-12 thru EP-17) locations for the collection of groundwater samples following EAR and laboratory standard procedures and protocol[1]. Prior to any ground intrusive activities, subsurface utilities were located and marked using both public and private resources, as applicable. Temporary boring locations were predetermined by NYSDEC. Three targeted locations (EP-9, EP-10, EP-11) were proposed at the Ridge FD but could not be implemented due to field conditions. Two exploratory borings (EP-10 and EP-11) were advanced near the Ridge FD neither of which encountered groundwater before refusal was met at approximately 66 - 69 ft below grade surface. Alternative methods for sample collection were discussed with your office, but it was decided not to proceed with more invasive drilling methods at this time. As such, location EP-9 was removed from the sampling plan per NYSDEC direction.

At each temporary boring, groundwater samples were collected starting at the water table interface, proceeding in 10-foot intervals, with approximately four to six discrete samples collected at each location.

[1] Groundwater was collected following EAR's standard procedure to prevent cross-contamination between samples and to ensure sample integrity. Samples collected for laboratory analysis were placed into the appropriate sample containers and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius for transport (containers and coolers provided by the laboratory). Chain-of-Custody forms were completed and possession was maintained between sampling personnel and the laboratory during each sampling event. Samples were delivered to the laboratory via TestAmerica courier.

With variable depth to waters observed, due to topographical differences, total boring depths ranged from approximately 57 to 100 feet below grade. Observations and sample collection depths at each location are detailed in the table below.

Property	Approximate DTW (feet bg)	Location	Approximate DTW (feet bg)	Sample Collection Depth Range (feet bg)
CALABRO AIRPORT	42 - 58	EP-1	55	65-95
		EP-2	58	65-95
		EP-3	42	45-95
		EP-4	50	55-95
		EP-5	47	48-98
		EP-6	43	45-95
MASTIC FD STATION 1	38 - 39	EP-7	38	45-75
		EP-8	39	45-75
MANORVILLE FD - Silas Carter Rd	11 - 14	EP-12	14	15-55
		EP-13	11	23-63
		EP-14	11	18-58
MANORVILLE FD STATION 1 - Cranford Blvd	34	EP-15	34	38-78
		EP-16	34	38-78
		EP-17	34	38-78

At each location, 1.5-inch or 0.5-inch diameter stainless-steel hollow rods were driven to the target depth via direct push drilling methods. Prior to groundwater sample collection, the borings were gauged with a water level meter to calculate the volume of standing water. A 0.25-inch diameter High Density Polyethylene (HDPE) tube fitted with a stainless-steel check valve was then inserted into the rod and groundwater was drawn into the tube through a 2-foot milled slot section in the lead rod using inertial pumping methods.

A multi-parameter meter (YSI 556 or equivalent) and turbidity meter (Hach 2100Q) were used to monitor water quality parameters. Sample intervals were purged of at least one rod volume or one gallon, whichever was greater, then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and ORP were recorded as well. A turbidity target value of <= 50 NTU's was initially planned for part of stabilization criteria, but purge water was very turbid and the target criteria was not met in majority of sampling intervals due to site lithology conditions. With NYSDEC approval, turbidity was recorded but not used for stabilization.

All purge water was discharged in the vicinity of the boring. All drive tools that contacted the groundwater (drive point, rods, couplings, etc.) were decontaminated between sample locations by mechanical removal of dirt followed by using a three step washing process that consists of a distilled water rinse, alconox and distilled water wash solution, followed by a distilled water rinse. A new length of HDPE tubing was used for each sample. Following sample collection at each borehole, the borehole was grouted with a cement-bentonite mix.

Samples were placed into the appropriate sample containers provided by the laboratory and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius. A total of 83 groundwater samples (including 5 blind duplicates, 9 equipment blanks) were submitted to a NYSDEC standby contracted laboratory (Test America, Inc.) for analysis of per- and polyfluoroalkyl substances (PFAS) via

modified EPA Method 537 (21 analytes) and 1, 4 Dioxane via EPA Method 8270 SIM. All samples were submitted for standard 10-day turn around with Category B deliverables requested.

Analytical results for 1, 4 Dioxane via EPA Method 8270 SIM are summarized in **Table 1**. The PFAS analytical results are compared to the USEPA health advisory level[2] on **Table 2**. Field screening results are provided in **Table 3**. A site map depicting concentrations of 1, 4 Dioxane and PFAS at each sampling location is included as **Figures 6 – 9**. Drill logs and field notes have been included as **Appendix A**. Laboratory analytical reports, and tables calculating the relative percent difference of the blind duplicate samples for 1, 4 Dioxane and for PFAS are included as **Appendix B**.

Data usability summary reports (DUSRs) were prepared by an EAR chemist utilizing the laboratory provided Category B deliverable packages. Overall, majority of data was found to be acceptable and were within the Category B criterion and usable; though some data was qualified, and some data was rejected. Data rejections are data are noted below:

Sample ID	Method Affected	Validator Qualifier	Justification
EB Tubing:Decon Pump_20190701	Modified EPA 537	rejected	non-detected parameters reported by the lab were rejected due to samples being analyzed outside of holding time
EP-8_45-47-20190701			
EP-8_55-57-20190701			
EP-12_15-17-20190702	Modified EPA 537	data rejected & qualified	non-detected parameters reported by the lab were rejected and detections were qualified as estimated values due to internal standards not meeting recovery criteria
EP-12_25-27-20190702			
EP-3_75-77-20190627	Method 8270D SIM, Isotope Dilution	rejected	data rejected due to low recovery within matrix spike samples associated with these samples
EP-6_65-67-20190625			

After validation, the electronic data deliverables were prepared by EAR, processed via the EQuIS EDP checker and submitted to NYSDEC Environmental Information Management Systems for upload. The DUSRs have been included as **Appendix C**.

If you have any questions regarding the activities detailed in this report, please feel free to contact me at 631-447-6400 ext. 131 or via email at Lawrence@Enviro-Asmnt.com.

Sincerely,
Environmental Assessment & Remediations,

Jennifer A. Lawrence

[2] EPA 2018 Edition of Drinking Water Standards and Health Advisories

Senior Project Manager

cc:
Robert Ancona (EAR) *via email with attachments*

Tables

TABLE 1

135 Dawn Drive
Shirley, NY
NYSDEC Spill # 18-10934

GW Profiling Investigation (June 2019 - July 2019)
Groundwater Analytical Results (ug/L)
TestAmerica, Inc.
1, 4 Dioxane EPA Method 8270 SIM

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Location and Depth	Date Collected	1,4-Dioxane
CALABRO AIRPORT - 135 Dawn Drive, Shirley, NY		
EP-1_65-67	6/24/2019	<0.40
EP-1_75-77	6/24/2019	<0.40
EP-1_85-87	6/24/2019	<0.40
EP-1_95-97	6/24/2019	<0.40
EP-2_65-67	6/26/2019	<0.40
EP-2_75-77	6/26/2019	<0.40
EP-2_85-87	6/26/2019	**0.45**
EP-2_95-97	6/26/2019	**0.5**
EP-3_45-47	6/27/2019	<0.40
EP-3_55-57	6/27/2019	<0.40
EP-3_65-67	6/27/2019	**0.39 JT**
EP-3_75-77	6/27/2019	<0.40
EP-3_85-87	6/27/2019	<0.40
EP-3_95-97	6/27/2019	<0.40
EP-4_55-57	6/26/2019	**0.30 JT**
EP-4_65-67	6/26/2019	**0.33 JT**
EP-4_75-77	6/26/2019	<0.40
EP-4_85-87	6/27/2019	**0.51**
EP-4_95-97	6/27/2019	**0.81**
EP-5_48-50	6/24/2019	<0.40
EP-5_58-60	6/24/2019	<0.40
EP-5_68-70	6/25/2019	<0.40
EP-5_78-80	6/25/2019	**0.36 J**
EP-5_88-90	6/25/2019	<0.40
EP-5_98-100	6/25/2019	<0.40
EP-6_45-47	6/25/2019	<0.40
EP-6_55-57	6/25/2019	<0.40
EP-6_65-67	6/25/2019	<0.40
EP-6_75-77	6/25/2019	<0.40
EP-6_85-87	6/26/2019	**0.18 JT**
EP-6_95-97	6/26/2019	<0.40
MASTIC FD STATION 1 - Shirley, NY		
EP-7_45-47	7/1/2019	<0.40
EP-7_55-57	7/1/2019	<0.40
EP-7_65-67	7/1/2019	<0.40
EP-7_75-77	7/1/2019	<0.40
EP-8_45-47	7/1/2019	<0.40
EP-8_55-57	7/1/2019	<0.40
EP-8_65-67	7/1/2019	<0.40
EP-8_75-77	7/1/2019	<0.40

TABLE 1

135 Dawn Drive
Shirley, NY
NYSDEC Spill # 18-10934

GW Profiling Investigation (June 2019 - July 2019)
Groundwater Analytical Results (ug/L)
TestAmerica, Inc.
1, 4 Dioxane EPA Method 8270 SIM

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Location and Depth	Date Collected	1,4-Dioxane
MANORVILLE FD - 14 Silas Carter Road, Manorville, NY		
EP-12_15-17	7/2/2019	<0.40
EP-12_25-27	7/2/2019	<0.40
EP-12_35-37	7/2/2019	<0.40
EP-12_45-47	7/2/2019	<0.40
EP-12_55-57	7/2/2019	<0.40
EP-13_23-25	7/2/2019	<0.40
EP-13_33-35	7/2/2019	<0.40
EP-13_43-45	7/2/2019	<0.40
EP-13_53-55	7/2/2019	<0.40
EP-13_63-65	7/2/2019	<0.40
EP-14_18-20	7/2/2019	<0.40
EP-14_28-30	7/2/2019	<0.40
EP-14_38-40	7/2/2019	<0.40
EP-14_48-50	7/2/2019	<0.40
EP-14_58-60	7/2/2019	<0.40
MANORVILLE FD STATION 1 - 170 Cranford Boulevard, Mastic, NY		
EP-15_38-40	6/28/2019	<0.40
EP-15_48-50	6/28/2019	<0.40
EP-15_58-60	6/28/2019	**0.39 J**
EP-15_68-70	6/28/2019	**0.81**
EP-15_78-80	6/28/2019	<0.40
EP-16_38-40	6/27/2019	**0.17 JT**
EP-16_48-50	6/27/2019	<0.42
EP-16_58-60	6/27/2019	**0.8**
EP-16_68-70	6/28/2019	**0.31 J**
EP-16_78-80	6/28/2019	**0.5**
EP-17_38-40	6/28/2019	<0.40
EP-17_48-50	6/28/2019	**0.39 J**
EP-17_58-60	6/28/2019	**0.21 J**
EP-17_68-70	6/28/2019	<0.40
EP-17_78-80	6/28/2019	**1.1**
Equipment Blank Decontamination Inertia Pump_06-24	6/24/2019	<0.40
Equipment Blank Tubing_06-24-19	6/24/2019	<0.40
Equipment Blank Decontaminated Inertia Pump_06-25-	6/25/2019	<0.40
Equipment Blank Tubing_06-25-19	6/25/2019	<0.40
EB_06-26-19	6/26/2019	<0.40
Equipment tubing - d	6/27/2019	**0.42**
Equipment blank tubing & decontaminated inerta pum	6/28/2019	<0.40
Equipment blank Tubing - decontaminated inerta pum	7/1/2019	<0.40
Equipment blank Tubing - decontaminated inerta pum	7/2/2019	<0.40

J - result is higher than the method detection limit, but lower than the limit of quantization
nv - analyzed chemicals with no established values
T - Lab Control Sample (LCS) or Lab Control Sample Duplicate (LCSD) is outside acceptance limits.

TABLE 2

135 Dawn Drive
Shirley, NY
NYSDEC Spill # 18-10934

GW Profiling Investigation (June 2019 - July 2019)
Groundwater Analytical Results (ng/L)
TestAmerica, Inc.
EPA Method 537 Modified (21 Analytes)

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Location and Depth	Date Collected	Combined PFOA & PFOS	Perfluorobutanesulfonic Acid (PFBS)	Perfluorobutyric Acid (PFBA)	Perfluorodecanoic Acid (PFDA)	Perfluorododecanoic Acid (PFDoA)	Perfluoroheptane Sulfonate (PFHpS)	Perfluoroheptanoic Acid (PFHpA)	Perfluorohexanesulfonic Acid (PFHxS)	Perfluorohexanoic Acid (PFHxA)	Perfluorononanoic Acid (PFNA)	Perfluorooctane Sulfonamide (FOSA)	Perfluorooctanesulfonic Acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluoropentanoic Acid (PFPeA)	Perfluorotridecanoic Acid (PFTriA)	Perfluoroundecanoic Acid (PFUnA)	SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)	SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)
CALABRO AIRPORT - 135 Dawn Drive, Shirley, NY																			
EP-1_65-67	6/24/2019	**5.58**	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	**1.07 J**	<1.73	<8.64	**2.12**	**3.46**	**1.33 J**	<1.73	<1.73	<17.30	<17.30
EP-1_75-77	6/24/2019	**27.07**	**3.41**	**4.33**	<1.78	<1.78	<1.78	**5.36**	**19.4**	**6.68**	**0.27 J**	**9.4**	**9.77**	**17.3**	**7.5**	<1.78	<1.78	<17.80	<17.80
EP-1_85-87	6/24/2019	**9.57**	**3.92**	**3.12**	<1.79	<1.79	<1.79	**1.78 J**	**4.24**	**1.77 J**	<1.79	<8.96	**2.75**	**6.82**	**1.81**	<1.79	<1.79	<17.90	<17.90
EP-1_95-97	6/24/2019	**8.43**	**4.27**	**2.97**	<1.71	<1.71	<1.71	**2.13**	**3.19**	**1.74**	<1.71	<8.55	**2.79**	**5.64**	**1.84**	<1.71	<1.71	<17.10	<17.10
EP-2_65-67	6/26/2019	**17**	**0.51 J**	**3.28**	<1.75	<1.75	<1.75	**3.09**	**2.46**	**1.84**	**0.52 J**	<8.74	**5.7**	**11.3**	**2.39**	<1.75	<1.75	<17.50	<17.50
EP-2_75-77	6/26/2019	**14.16**	**11.8**	**8.31**	<1.75	<1.75	<1.75	**3.49**	**2.1**	**9.5**	**0.40 J**	<8.74	**1.76**	**12.4**	**10.6**	<1.75	<1.75	<17.50	<17.50
EP-2_85-87	6/26/2019	**5.53**	**3.12**	**5.24**	<1.74	<1.74	<1.74	**3.54**	**1.26 J**	**8.37**	<1.74	<8.70	**0.63 BJ**	**4.9**	**10.7**	<1.74	<1.74	<17.40	<17.40
EP-2_95-97	6/26/2019	**9.65**	**3.35**	**3.44**	<1.73	<1.73	<1.73	**2.77**	**2.74**	**8.23**	<1.73	<8.66	**1.61 BJ**	**8.04**	**6.98**	<1.73	<1.73	<17.30	<17.30
EP-3_45-47	6/27/2019	**4,978**	**23.6**	**94.1**	**0.74 J**	<1.73	**106**	**345**	**2,470**	**371**	**10.5**	**9.61**	**4,340**	**638**	**285**	<1.73	<1.73	**173**	**144**
EP-3_55-57	6/27/2019	**60.9**	**0.69 J**	**2.41**	<1.73	<1.73	**1 J**	**3.21**	**19.1**	**4.31**	<1.73	<8.66	**52.7**	**8.2**	**2.87**	<1.73	<1.73	<17.30	<17.30
EP-3_65-67	6/27/2019	**16.61**	**0.58 J**	**2.03**	<1.73	<1.73	<1.73	**2.16**	**2.81**	**1.34 J**	**0.38 J**	<8.64	**9.81**	**6.8**	**1.06 J**	<1.73	<1.73	<17.30	<17.30
EP-3_75-77	6/27/2019	**6.88**	**0.59 J**	<1.69	<1.69	<1.69	<1.69	<1.69	**2.39**	<1.69	<1.69	<8.45	**5.99**	**0.89 BJ**	<1.69	<1.69	<1.69	<16.90	<16.90
EP-3_85-87	6/27/2019	**7.58**	<1.69	<1.69	<1.69	<1.69	<1.69	<1.69	**1.59 J**	<1.69	**0.46 J**	<8.47	**6.21**	**1.37 BJ**	<1.69	<1.69	<1.69	<16.90	<16.90
EP-3_95-97	6/27/2019	**15.43**	**0.47 J**	**1.17 J**	<1.64	<1.64	<1.64	<1.64	**1.74**	**1.13 J**	**1.15 J**	<8.18	**12.3**	**3.13**	**1.25 J**	<1.64	<1.64	<16.40	<16.40
EP-4_55-57	6/26/2019	**0.85**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	**0.72 J**	<1.75	<8.76	<1.75	**0.85 J**	**1.14 J**	<1.75	**0.46 J**	<17.50	<17.50
EP-4_65-67	6/26/2019	**9.55**	**6.24**	**8.14**	<1.78	<1.78	<1.78	**5.25**	**5.62**	**7.56**	<1.78	**16**	**3.68**	**5.87**	**11.3**	<1.78	<1.78	<17.80	<17.80
EP-4_75-77	6/26/2019	**70.71**	<1.72	**1.55 J**	<1.72	<1.72	<1.72	**1.97**	**5.51**	**2.66**	**0.34 J**	<8.58	**2.71**	**68**	**2.47**	<1.72	<1.72	<17.20	<17.20
EP-4_85-87	6/27/2019	**20.21**	<8.87	<8.87	<8.87	<8.87	<8.87	<8.87	**13.1**	<8.87	<8.87	<44.30	**12.7**	**7.51 BJ**	**3.10 J**	<8.87	<8.87	<88.70	<88.70
EP-4_95-97	6/27/2019	<17.74	<8.87	<8.87	<8.87	<8.87	<8.87	<8.87	<8.87	<8.87	<8.87	<44.30	<8.87	<8.87	<8.87	<8.87	<8.87	<88.70	<88.70
EP-5_48-50	6/24/2019	**1.42**	**0.65 J**	**0.94 J**	<1.73	<1.73	<1.73	<1.73	**0.83 J**	<1.73	<1.73	<8.65	**0.56 BJ**	**0.86 BJ**	**0.58 J**	<1.73	<1.73	<17.30	<17.30
EP-5_58-60	6/24/2019	**15.64**	**1.03 J**	**4.57**	<1.66	<1.66	<1.66	**2.75**	**0.80 J**	**5.44**	**0.52 J**	<8.28	**8.74**	**6.9**	**5.7**	<1.66	<1.66	<16.60	<16.60
EP-5_68-70	6/25/2019	**9.9**	**0.67 J**	**1.49 J**	<1.72	<1.72	<1.72	**1.79**	**1.23 J**	**1.35 J**	**0.85 J**	<8.60	**4.35**	**5.55**	**1.04 J**	<1.72	<1.72	<17.20	<17.20
EP-5_78-80	6/25/2019	**4.43**	<1.78	**0.89 J**	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	**0.53 J**	<8.92	**1.76 BJ**	**2.67**	<1.78	<1.78	<1.78	<17.80	<17.80
EP-5_88-90	6/25/2019	**1.96**	<1.68	<1.68	<1.68	<1.68	<1.68	<1.68	<1.68	<1.68	<1.68	<8.42	**1 BJ**	**0.96 BJ**	<1.68	<1.68	<1.68	<16.80	<16.80
EP-5_98-100	6/25/2019	**0.71**	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<8.68	<1.74	**0.71 BJ**	<1.74	<1.74	<1.74	<17.40	<17.40
EP-6_45-47	6/25/2019	**3.13**	**0.75 J**	**0.85 J**	<1.71	<1.71	<1.71	<1.71	**3.21**	<1.71	<1.71	<8.55	<1.71	**3.13**	<1.71	<1.71	<1.71	<17.10	<17.10
EP-6_55-57	6/25/2019	**7.54**	<1.73	**1.98**	<1.73	<1.73	<1.73	**1.71 J**	**3.09**	**1.82**	<1.73	**13.1**	**2.9**	**4.64**	**3.63**	<1.73	<1.73	<17.30	<17.30
EP-6_65-67	6/25/2019	**2.56**	<1.69	<1.69	<1.69	<1.69	<1.69	<1.69	<1.69	<1.69	<1.69	**12.4**	**1.03 BJ**	**1.53 BJ**	**0.55 J**	<1.69	<1.69	<16.90	<16.90
EP-6_75-77	6/25/2019	**3.11**	**0.44 J**	**0.97 J**	<1.73	<1.73	<1.73	<1.73	**2.05**	<1.73	<1.73	**9.91**	**1.01 BJ**	**2.1**	<1.73	<1.73	<1.73	<17.30	<17.30
EP-6_85-87	6/26/2019	**10.61**	**5.81**	**3.63**	<1.70	<1.70	<1.70	**2.35**	**4.38**	**5.47**	<1.70	<8.49	**3.09**	**7.52**	**4.71**	<1.70	<1.70	<17	<17
EP-6_95-97	6/26/2019	**17.59**	**15.7**	**13**	<1.76	<1.76	<1.76	**6.24**	**1.8**	**30.1**	<1.76	**11.4**	**0.89 BJ**	**16.7**	**35.2**	<1.76	<1.76	<17.60	<17.60

135 Dawn Drive
Shirley, NY
NYSDEC Spill # 18-10934

GW Profiling Investigation (June 2019 - July 2019)
Groundwater Analytical Results (ng/L)
TestAmerica, Inc.
EPA Method 537 Modified (21 Analytes)

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Location and Depth	Date Collected	Combined PFOA & PFOS	Perfluorobutanesulfonic Acid (PFBS)	Perfluorobutyric Acid (PFBA)	Perfluorodecanoic Acid (PFDA)	Perfluorododecanoic Acid (PFDoA)	Perfluoroheptane Sulfonate (PFHpS)	Perfluoroheptanoic Acid (PFHpA)	Perfluorohexanesulfonic Acid (PFHxS)	Perfluorohexanoic Acid (PFHxA)	Perfluorononanoic Acid (PFNA)	Perfluorooctane Sulfonamide (FOSA)	Perfluorooctanesulfonic Acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluoropentanoic Acid (PFPeA)	Perfluorotridecanoic Acid (PFTriA)	Perfluoroundecanoic Acid (PFUnA)	SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)	SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)
MASTIC FD STATION 1 - Shirley, NY																			
EP-7_45-47	7/1/2019	10.14	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	0.35 J	16.7	8.45	1.69 BJ	1.09 J	<1.74	<1.74	<17.40	<17.40
EP-7_55-57	7/1/2019	7.85	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	0.72 J	<1.76	<1.76	<8.80	6.67	1.18 BJ	0.57 J	<1.76	<1.76	<17.60	<17.60
EP-7_65-67	7/1/2019	7.14	<1.75	1.06 J	<1.75	<1.75	<1.75	0.91 J	1 J	0.97 J	<1.75	<8.73	5.34	1.8	1.24 J	<1.75	<1.75	<17.50	<17.50
EP-7_75-77	7/1/2019	6.82	<1.73	2.16	<1.73	<1.73	<1.73	0.81 J	0.91 J	0.74 J	0.32 J	<8.65	4.36	2.46	1.08 J	<1.73	<1.73	<17.30	<17.30
EP-8_45-47	7/1/2019	520.1	4.01	37.6	<1.72	<1.72	1.96	55	59.2	81.1	7.28	<8.59	501	19.1	118	<1.72	<1.72	<17.20	<17.20
EP-8_55-57	7/1/2019	68.09	0.75 JHT	5	<1.78	<1.78	<1.78	9.91	11.6	10.9	0.87 JHT	<8.89	65.8	2.29	13.3	<1.78	0.53 JHT	<17.80	<17.80
EP-8_65-67	7/1/2019	7.12	0.45 J	1.82	<1.74	<1.74	<1.74	1.64 J	3.7	1.77	<1.74	<1.74	6.27	0.85 J	2.43	<1.74	<1.74	<17.40	<17.40
EP-8_75-77	7/1/2019	38.5	0.71 J	3.59	<1.75	<1.75	<1.75	6.11	5.07	6.99	0.87 J	<1.75	35.7	2.8	9.71	<1.75	<1.75	<17.50	<17.50
MANORVILLE FD - 14 Silas Carter Road, Manorville, NY																			
EP-12_15-17	7/2/2019	11.53	<9.35	<9.35	<9.35	<9.35	<9.35	<9.35	5.50 J	3.61 J	<9.35	<46.80	2.92 J	8.61 J	<9.35	<9.35	<9.35	<93.50	<93.50
EP-12_25-27	7/2/2019	10.2	<9.89	<9.89	<9.89	<9.89	<9.89	<9.89	4.23 J	4.77 J	<9.89	<49.40	<9.89	10.2	<9.89	<9.89	<9.89	<98.90	<98.90
EP-12_35-37	7/2/2019	5.57	7.79	1.40 J	<1.83	<1.83	<1.83	0.86 J	0.94 J	1.32 J	<1.83	<9.16	2.87	2.7	0.90 J	<1.83	<1.83	<18.30	<18.30
EP-12_45-47	7/2/2019	2.01	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<8.90	0.68 J	1.33 J	<1.78	<1.78	<1.78	<17.80	<17.80
EP-12_55-57	7/2/2019	0.57	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<8.83	0.57 J	<1.77	<1.77	<1.77	<1.77	<17.70	<17.70
EP-13_23-25	7/2/2019	1.72	0.97 J	<1.86	<1.86	<1.86	<1.86	<1.86	13.6	<1.86	<1.86	<9.31	0.69 J	1.03 J	<1.86	<1.86	<1.86	<18.60	<18.60
EP-13_33-35	7/2/2019	3.3	1.70 J	1.25 J	<1.90	<1.90	<1.90	<1.90	21.8	0.94 J	<1.90	<9.48	1.20 J	2.1	1.72 J	<1.90	<1.90	<19	<19
EP-13_43-45	7/2/2019	1.95	1.21 J	<1.86	<1.86	<1.86	<1.86	<1.86	0.92 J	0.98 J	<1.86	<9.28	0.70 J	1.25 J	0.90 J	<1.86	<1.86	<18.60	<18.60
EP-13_53-55	7/2/2019	1	0.82 J	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	0.96 J	<1.78	<8.91	<1.78	1 J	0.73 J	<1.78	<1.78	<17.80	<17.80
EP-13_63-65	7/2/2019	0.68	0.83 J	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	0.90 J	<1.80	<9.01	<1.80	0.68 J	1.05 J	<1.80	<1.80	<18	<18
EP-14_18-20	7/2/2019	71	4.28	22.9	<1.91	<1.91	1.56 J	46.8	76.6	63.4	29	<9.53	60.3	10.7	71.3	<1.91	1.43 J	<19.10	<19.10
EP-14_28-30	7/2/2019	105.4	7.33	32.6	4.7	0.74 J	12.1	88.3	166	83	97.4	<9.21	61.4	44	100	1.20 J	5.06	4.77 J	14.80 J
EP-14_38-40	7/2/2019	84.3	2.64	62.5	24.9	6.19	1.08 J	144	29.6	140	49.7	<8.93	30.2	54.1	289	84.5	269	207	304
EP-14_48-50	7/2/2019	8.07	4.25	2.24	<1.86	<1.86	<1.86	2.98	3.36	2.84	1.18 J	<9.29	3.46	4.61	4.68	3.18	7.78	3.89 J	5.69 J
EP-14_58-60	7/2/2019	2.62	<1.75	1.08 J	<1.75	<1.75	<1.75	1.92	1.18 J	1.91	0.80 J	<8.76	1.19 J	1.43 J	3.16	2.09	3.22	2.75 J	5.04 J
MANORVILLE FD STATION 1 - 170 Cranford Boulevard, Mastic, NY																			
EP-15_38-40	6/28/2019	6.08	<8.63	68.2	3.71 J	<8.63	<8.63	43	<8.63	127	2.73 J	<43.10	<8.63	6.08 BJ	259	<8.63	29.7	<86.30	<86.30
EP-15_48-50	6/28/2019	5.54	0.49 J	9.33	5.79	<1.68	<1.68	6.55	<1.68	10.8	2.66	<8.40	2.12	3.42	25.3	<1.68	5.4	<16.80	4.70 J
EP-15_58-60	6/28/2019	10.27	3.07	4.76	<1.77	<1.77	<1.77	2.76	3.43	5.35	1.04 J	17.4	4.49	5.78	7.09	<1.77	1.12 J	<17.70	<17.70
EP-15_68-70	6/28/2019	1.98	1.44 J	1.69 J	<1.70	<1.70	<1.70	1.34 J	1.03 J	2.51	<1.70	12	<1.70	1.98	3.42	<1.70	1 J	<17	<17
EP-15_78-80	6/28/2019	<3.46	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<8.65	<1.73	<1.73	0.64 J	<1.73	0.49 J	<17.30	<17.30
EP-16_38-40	6/27/2019	28.81	0.99 J	1.36 J	2.18	<1.71	<1.71	<1.71	<1.71	0.91 J	1.96	<8.55	25.6	3.21	1.75	<1.71	<1.71	<17.10	<17.10
EP-16_48-50	6/27/2019	10.37	3.38	4.73	<1.71	<1.71	<1.71	4.29	1.77	7.53	<1.71	<8.53	1.57 BJ	8.8	6.91	<1.71	<1.71	<17.10	<17.10
EP-16_58-60	6/27/2019	3.27	0.72 J	1.36 J	<1.72	<1.72	<1.72	1.03 J	0.85 J	2.31	<1.72	<8.60	1.08 BJ	2.19	1.94	<1.72	<1.72	<17.20	<17.20
EP-16_68-70	6/28/2019	2.33	0.78 J	1.25 J	<1.69	<1.69	<1.69	0.97 J	<1.69	1.8	0.27 J	<8.45	0.73 BJ	1.60 BJ	1.33 J	<1.69	0.53 J	<16.90	<16.90
EP-16_78-80	6/28/2019	5.76	3.14	3.65	<1.75	<1.75	<1.75	2.91	1.22 J	10.7	<1.75	9.54	1.24 BJ	4.52	7.68	<1.75	<1.75	<17.50	<17.50
EP-17_38-40	6/28/2019	20.1	4.25	9.87	<1.73	<1.73	<1.73	7.31	1.27 J	34	0.56 J	<8.67	13.5	6.6	29.2	<1.73	<1.73	<17.30	<17.30
EP-17_48-50	6/28/2019	41.56	5.3	7.51	<1.68	<1.68	<1.68	10.5	3.4	29.7	0.86 J	<8.42	2.56	39	25	<1.68	<1.68	<16.80	<16.80
EP-17_58-60	6/28/2019	16.89	4.27	7.95	<1.72	0.58 J	<1.72	6.9	1.84	61.8	0.87 J	<8.61	1.79	15.1	48	<1.72	0.72 J	<17.20	<17.20
EP-17_68-70	6/28/2019	2.02	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	0.92 J	<1.71	8.57	0.63 BJ	1.39 BJ	0.85 J	<1.71	<1.71	<17.10	<17.10
EP-17_78-80	6/28/2019	3.93	4.71	3.54	<1.75	<1.75	<1.75	2.56	1.20 J	6.53	<1.75	<8.75	1.19 BJ	2.74	5.64	<1.75	<1.75	<17.50	<17.50

TABLE 2

135 Dawn Drive
Shirley, NY
NYSDEC Spill # 18-10934

GW Profiling Investigation (June 2019 - July 2019)
Groundwater Analytical Results (ng/L)
TestAmerica, Inc.
EPA Method 537 Modified (21 Analytes)

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Location and Depth	Date Collected	Combined PFOA & PFOS	Perfluorobutanesulfonic Acid (PFBS)	Perfluorobutyric Acid (PFBA)	Perfluorodecanoic Acid (PFDA)	Perfluorododecanoic Acid (PFDoA)	Perfluoroheptane Sulfonate (PFHpS)	Perfluoroheptanoic Acid (PFHpA)	Perfluorohexanesulfonic Acid (PFHxS)	Perfluorohexanoic Acid (PFHxA)	Perfluorononanoic Acid (PFNA)	Perfluorooctane Sulfonamide (FOSA)	Perfluorooctanesulfonic Acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluoropentanoic Acid (PFPeA)	Perfluorotridecanoic Acid (PFTriA)	Perfluoroundecanoic Acid (PFUnA)	SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)	SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)
EQUIPMENT BLANK DECONTAMINATED INERTIA PUMP_06-24-	6/24/2019	**1.12**	<1.69	<1.69	<1.69	<1.69	<1.69	<1.69	<1.69	<1.69	<1.69	<8.45	**0.57 BJ**	**0.55 BJ**	<1.69	<1.69	<1.69	<16.90	<16.90
EQUIPMENT BLANK TUBING_06-26-19	6/24/2019	<3.20	<1.60	<1.60	<1.60	<1.60	<1.60	<1.60	<1.60	<1.60	<1.60	<7.99	<1.60	<1.60	<1.60	<1.60	<1.60	<16	<16
Equipment Blank Decontaminated Inertia Pump_06-25-	6/25/2019	**0.98**	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<8.34	**0.98 BJ**	<1.67	<1.67	<1.67	<1.67	<16.70	<16.70
Equipment Blank Tubing_06-25-19	6/25/2019	**1.2**	<1.59	<1.59	<1.59	<1.59	<1.59	<1.59	<1.59	<1.59	**0.24 J**	<7.96	**0.60 BJ**	**0.60 BJ**	<1.59	<1.59	<1.59	<15.90	<15.90
EQUIPMENT BLANK TUBING & DECONTAMINATED INERTIA PU	6/26/2019	**0.53**	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<8.03	<1.61	**0.53 J**	<1.61	<1.61	<1.61	<16.10	<16.10
EQUIP BLK TUBING_DEC INERTIA PUMP_6-27-19	6/27/2019	<3.32	<1.66	<1.66	<1.66	<1.66	<1.66	<1.66	<1.66	<1.66	<1.66	<8.32	<1.66	<1.66	<1.66	<1.66	<1.66	<16.60	<16.60
EQUIPMENT BLANK TUBING & DECONTAMINATED INTERTIA P	6/28/2019	**0.51**	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<8.05	<1.61	**0.51 BJ**	<1.61	<1.61	<1.61	<16.10	<16.10
EB Tubing:Decon Pump_07-01-19	7/1/2019	<3.22	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<8.05	<1.61	<1.61	<1.61	<1.61	<1.61	<16.10	<16.10
EQUIP BLK TUBING_DEC INERTIA PUMP_07-02-19	7/2/2019	<3.42	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<8.54	<1.71	<1.71	<1.71	<1.71	<1.71	<17.10	<17.10
USEPA Health Advisory Level[1]		**70**	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	**70**	**70**	nv	nv	nv	nv	nv

[1]EPA 2018 Edition of the Drinking Water Standards and Health Advisories (ng/L)

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

H - Sample was prepped or analyzed beyond the specified holding time

T - Instrument related QC is outside acceptance limits; Lab Control Sample (LCS) or Lab Control Sample Duplicate (LCSD) is outside acceptance limits

B - Compound was found in the blank and sample.

nv - analyzed chemicals with no established

analytical results highlighted in grey exceed USEPA Health Advisory Level

The chemicals listed below were reported below the LRL:

2-(N-methyl perfluorooctanesulfonamido) acetic acid
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine
Perfluorodecane Sulfonic Acid
Perfluorotetradecanoic Acid (PFTeA)

135 Dawn Drive
Shirley, NY
NYSDEC Spill # 18-10934

GW Profiling Investigation (June 2019 - July 2019)
Groundwater Analytical Results
EAR Field Screening

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Location and Depth	Date Collected	Volume Purged (gallons)	Dissolved Oxygen (mg/L)	Temperature (°C)	pH	ORP (mV) (Oxidation Reduction Potential)	Conductivity (uS/cm)	Turbidity (NTU's)
CALABRO AIRPORT - 135 Dawn Drive, Shirley, NY								
EP-1_65-67	6/24/2019	5.0	9.73	14.28	5.38	126.4	82	157
EP-1_75-77	6/24/2019	4.0	4.52	16.75	5.58	45.5	214	232
EP-1_85-87	6/24/2019	1.0	6.54	16.09	5.76	75.6	242	465
EP-1_95-97	6/24/2019	1.0	1.24	15.32	6.03	-53.7	331	962
EP-2_65-67	6/26/2019	1.0	5.18	16.11	5.90	50.4	559	233
EP-2_75-77	6/26/2019	2.0	5.34	14.51	5.56	82.8	416	476
EP-2_85-87	6/26/2019	1.5	5.71	14.94	5.80	69.7	288	363
EP-2_95-97	6/26/2019	1.0	2.04	15.64	5.80	18.1	360	198
EP-3_45-47	6/27/2019	1.0	7.93	18.44	5.69	141.2	93	153
EP-3_55-57	6/27/2019	1.0	8.04	16.62	4.86	163.2	54	184
EP-3_65-67	6/27/2019	1.0	8.05	16.85	5.67	121.2	50	318
EP-3_75-77	6/27/2019	1.0	6.40	17.09	5.69	92.3	70	268
EP-3_85-87	6/27/2019	1.0	5.64	15.53	5.60	105.7	87	181
EP-3_95-97	6/27/2019	1.0	2.33	17.08	6.05	41.8	207	170
EP-4_55-57	6/26/2019	1.0	6.85	20.96	5.10	143.2	48	455
EP-4_65-67	6/26/2019	1.0	8.81	15.82	5.62	157.6	89	675
EP-4_75-77	6/26/2019	1.0	2.85	15.22	5.63	82.5	121	169
EP-4_85-87	6/27/2019	1.5	5.14	14.00	6.58	28.5	96	111
EP-4_95-97	6/27/2019	1.5	2.61	14.32	6.42	11.6	165	251
EP-5_48-50	6/24/2019	1.0	7.11	16.37	5.81	119.8	228	474
EP-5_58-60	6/24/2019	1.0	8.80	15.52	5.85	118.1	92	456
EP-5_68-70	6/25/2019	1.0	9.25	15.78	5.75	115.9	85	604
EP-5_78-80	6/25/2019	1.0	6.35	16.51	5.81	101.2	50	276
EP-5_88-90	6/25/2019	1.0	11.32	15.17	5.87	98.9	45	134
EP-5_98-100	6/25/2019	1.5	6.88	15.62	5.86	104.5	54	239
EP-6_45-47	6/25/2019	1.0	9.62	16.68	5.39	156.0	38	266
EP-6_55-57	6/25/2019	1.0	8.90	16.18	5.66	132.1	71	191
EP-6_65-67	6/25/2019	1.0	8.34	15.90	5.66	109.9	49	144
EP-6_75-77	6/25/2019	1.0	4.03	17.10	6.18	62.6	119	205
EP-6_85-87	6/26/2019	1.5	2.13	16.53	6.17	47.6	270	236
EP-6_95-97	6/26/2019	1.5	1.62	16.39	6.47	1.2	274	369
MASTIC FD STATION 1 - Shirley, NY								
EP-7_45-47	7/1/2019	1.0	4.65	18.56	3.31	114.3	123	455
EP-7_55-57	7/1/2019	1.0	1.27	18.14	3.75	-32.4	121	413
EP-7_65-67	7/1/2019	1.0	0.51	17.53	3.43	-81.9	98	651
EP-7_75-77	7/1/2019	1.0	3.80	17.68	3.25	17.6	130	241
EP-8_45-47	7/1/2019	1.0	7.18	16.85	4.31	131.4	189	204
EP-8_55-57	7/1/2019	1.0	4.01	18.86	4.51	48.3	129	125
EP-8_65-67	7/1/2019	1.0	4.85	17.41	3.55	63.2	120	216
EP-8_75-77	7/1/2019	1.0	2.39	18.34	3.88	-7.2	117	418

135 Dawn Drive
Shirley, NY
NYSDEC Spill # 18-10934

GW Profiling Investigation (June 2019 - July 2019)
Groundwater Analytical Results
EAR Field Screening

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Location and Depth	Date Collected	Volume Purged (gallons)	Dissolved Oxygen (mg/L)	Temperature (°C)	pH	ORP (mV) (Oxidation Reduction Potential)	Conductivity (uS/cm)	Turbidity (NTU's)
MANORVILLE FD - 14 Silas Carter Road, Manorville, NY								
EP-12_15-17	7/2/2019	1.0	0.29	18.43	3.88	-54.6	206	589
EP-12_25-27	7/2/2019	2.0	0.14	16.40	3.85	-66.2	306	647
EP-12_35-37	7/2/2019	2.0	5.24	13.38	3.14	325.0	181	418
EP-12_45-47	7/2/2019	1.0	1.45	13.37	3.17	62.4	103	469
EP-12_55-57	7/2/2019	1.0	1.53	12.97	2.94	32.8	82	190
EP-13_23-25	7/2/2019	1.0	5.80	15.08	2.45	56.8	131	n/a
EP-13_33-35	7/2/2019	1.0	5.78	14.86	2.79	66.7	143	n/a
EP-13_43-45	7/2/2019	2.0	5.46	14.02	2.89	89.6	148	461
EP-13_53-55	7/2/2019	2.0	6.19	13.25	2.91	117.9	144	116
EP-13_63-65	7/2/2019	2.5	6.59	12.81	3.04	129.1	140	73.1
EP-14_18-20	7/2/2019	1.0	5.68	17.63	4.07	111.7	655	n/a
EP-14_28-30	7/2/2019	1.0	0.92	16.04	3.10	16.9	172	753
EP-14_38-40	7/2/2019	2.0	1.11	16.22	3.14	67.0	660	256
EP-14_48-50	7/2/2019	2.0	0.32	16.46	3.16	61.3	191	142
EP-14_58-60	7/2/2019	2.5	0.34	16.03	2.68	25.8	115	218
MANORVILLE FD STATION 1 - 170 Cranford Boulevard, Mastic, NY								
EP-15_38-40	6/28/2019	1.0	5.89	18.58	5.67	135.7	34	166
EP-15_48-50	6/28/2019	1.0	3.53	18.11	6.25	69.6	58	183
EP-15_58-60	6/28/2019	1.0	5.56	16.88	5.60	122.2	261	199
EP-15_68-70	6/28/2019	1.0	6.70	16.81	4.20	117.0	205	466
EP-15_78-80	6/28/2019	1.0	7.21	15.00	3.25	124.0	54	975
EP-16_38-40	6/27/2019	1.0	6.84	16.49	4.82	155.9	132	198
EP-16_48-50	6/27/2019	1.0	7.16	15.06	4.99	164.2	215	229
EP-16_58-60	6/27/2019	1.0	8.98	13.39	5.11	183.7	174	477
EP-16_68-70	6/28/2019	1.0	6.58	12.83	5.59	143.5	189	46.5
EP-16_78-80	6/28/2019	1.0	6.65	14.20	5.74	136.7	290	135
EP-17_38-40	6/28/2019	1.0	3.04	15.66	8.01	220.1	443	183
EP-17_48-50	6/28/2019	1.0	2.18	16.16	3.26	204.3	476	127
EP-17_58-60	6/28/2019	1.0	6.96	14.40	3.17	218.4	393	126
EP-17_68-70	6/28/2019	1.0	6.81	15.24	3.43	195.3	212	163
EP-17_78-80	6/28/2019	1.0	4.82	14.04	3.09	161.4	171	134

n/a - not available

Figures

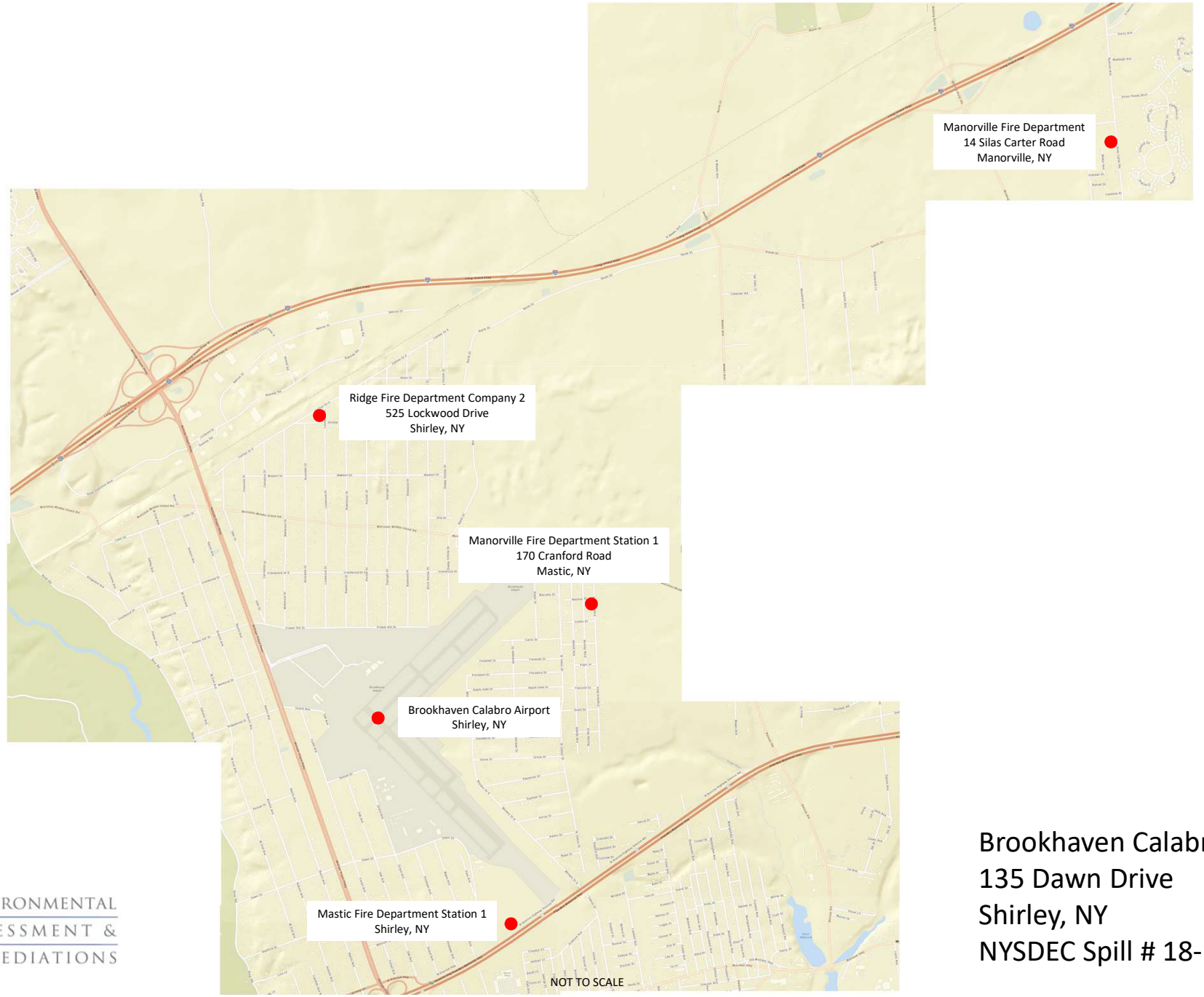


Figure 1

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Brookhaven Calabro Airport
135 Dawn Drive
Shirley, NY
NYSDEC Spill # 18-10934

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Site Map

Brookhaven Calabro Airport
135 Dawn Drive
Shirley, NY
Spill #18-10934

Figure 3

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Site Map

Mastic Fire Department Station 1
Sunrise Service Road North
Shirley, NY
NYSDEC Spill #18-10934

Figure 4

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Site Map

Manorville Fire Department
14 Silas Carter Road
Manorville, NY
Spill #18-10934

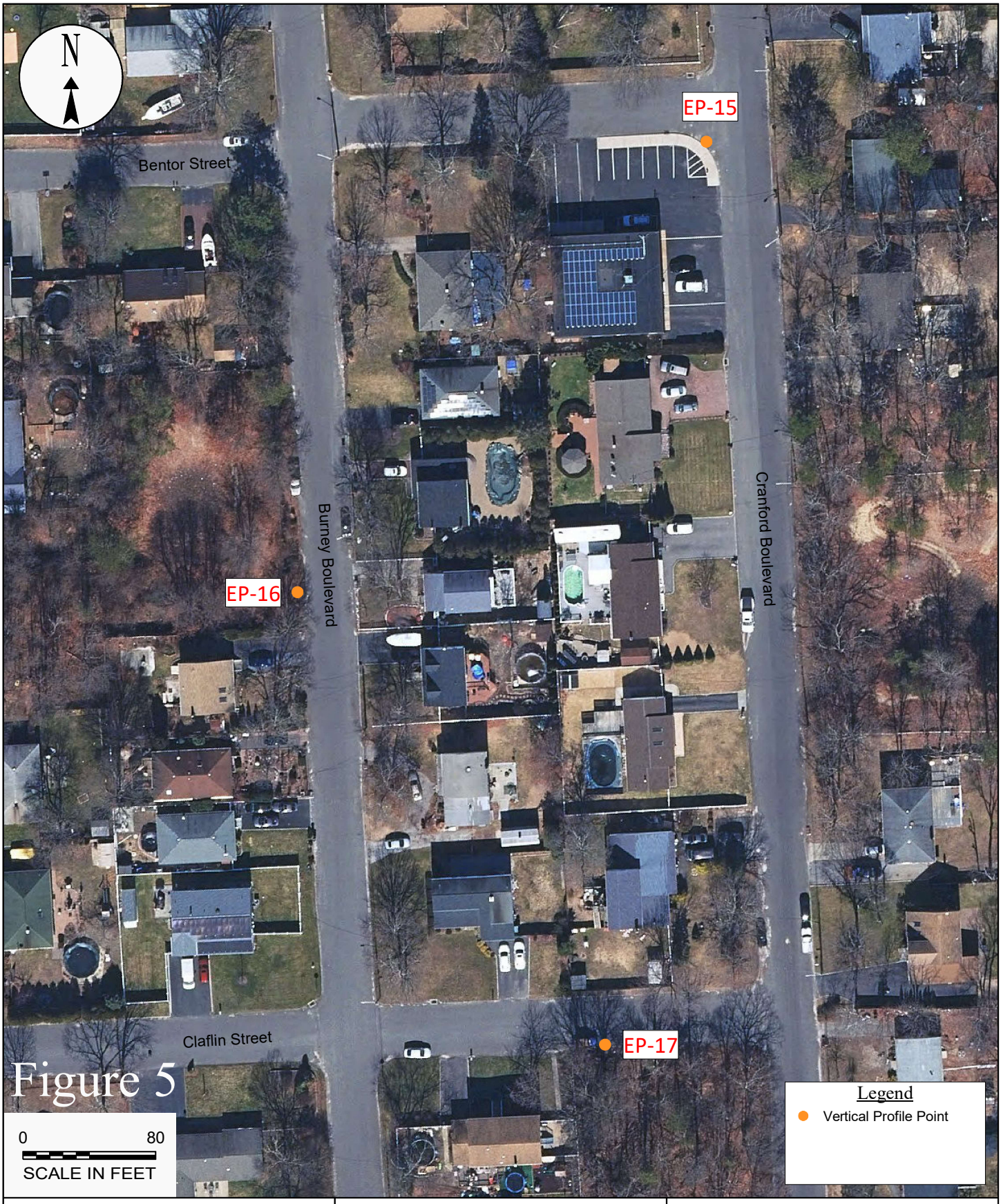
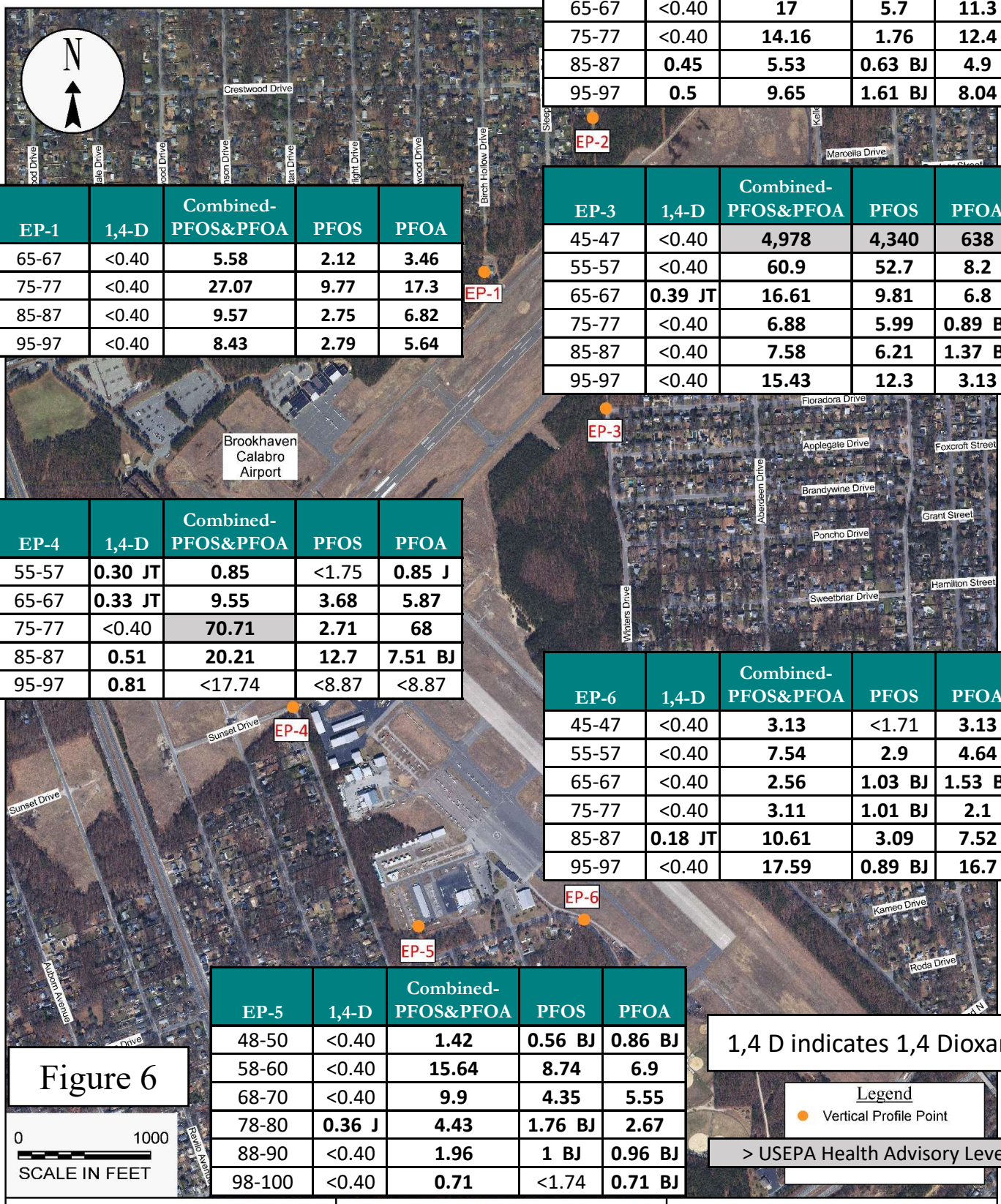


Figure 5

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Site Map

Manorville Fire Department, Station 1
170 Cranford Boulevard
Mastic, NY
Spill #18-10934



EP-2	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
65-67	<0.40	**17**	**5.7**	**11.3**
75-77	<0.40	**14.16**	**1.76**	**12.4**
85-87	**0.45**	**5.53**	**0.63 BJ**	**4.9**
95-97	**0.5**	**9.65**	**1.61 BJ**	**8.04**

EP-1	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
65-67	<0.40	**5.58**	**2.12**	**3.46**
75-77	<0.40	**27.07**	**9.77**	**17.3**
85-87	<0.40	**9.57**	**2.75**	**6.82**
95-97	<0.40	**8.43**	**2.79**	**5.64**

EP-3	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
45-47	<0.40	**4,978**	**4,340**	**638**
55-57	<0.40	**60.9**	**52.7**	**8.2**
65-67	**0.39 JT**	**16.61**	**9.81**	**6.8**
75-77	<0.40	**6.88**	**5.99**	**0.89 BJ**
85-87	<0.40	**7.58**	**6.21**	**1.37 BJ**
95-97	<0.40	**15.43**	**12.3**	**3.13**

EP-4	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
55-57	**0.30 JT**	**0.85**	<1.75	**0.85 J**
65-67	**0.33 JT**	**9.55**	**3.68**	**5.87**
75-77	<0.40	**70.71**	**2.71**	**68**
85-87	**0.51**	**20.21**	**12.7**	**7.51 BJ**
95-97	**0.81**	<17.74	<8.87	<8.87

EP-6	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
45-47	<0.40	**3.13**	<1.71	**3.13**
55-57	<0.40	**7.54**	**2.9**	**4.64**
65-67	<0.40	**2.56**	**1.03 BJ**	**1.53 BJ**
75-77	<0.40	**3.11**	**1.01 BJ**	**2.1**
85-87	**0.18 JT**	**10.61**	**3.09**	**7.52**
95-97	<0.40	**17.59**	**0.89 BJ**	**16.7**

EP-5	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
48-50	<0.40	**1.42**	**0.56 BJ**	**0.86 BJ**
58-60	<0.40	**15.64**	**8.74**	**6.9**
68-70	<0.40	**9.9**	**4.35**	**5.55**
78-80	**0.36 J**	**4.43**	**1.76 BJ**	**2.67**
88-90	<0.40	**1.96**	**1 BJ**	**0.96 BJ**
98-100	<0.40	**0.71**	<1.74	**0.71 BJ**

Figure 6

1,4 D indicates 1,4 Dioxane

Legend
- Vertical Profile Point

> USEPA Health Advisory Level

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

GW Analytical Results
PFAs (ng/L)
1, 4 Dioxane (ug/L)
June 2019 - July 2019

Brookhaven Calabro Airport
135 Dawn Drive
Shirley, NY
Spill #18-10934

EP-7	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
45-47	<0.40	**10.14**	**8.45**	**1.69 BJ**
55-57	<0.40	**7.85**	**6.67**	**1.18 BJ**
65-67	<0.40	**7.14**	**5.34**	**1.8**
75-77	<0.40	**6.82**	**4.36**	**2.46**

EP-8	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
45-47	<0.40	**520.1**	**501**	**19.1**
55-57	<0.40	**68.09**	**65.8**	**2.29**
65-67	<0.40	**7.12**	**6.27**	**0.85 J**
75-77	<0.40	**38.5**	**35.7**	**2.8**

1,4 D indicates 1,4 Dioxane

Legend
- Vertical Profile Point

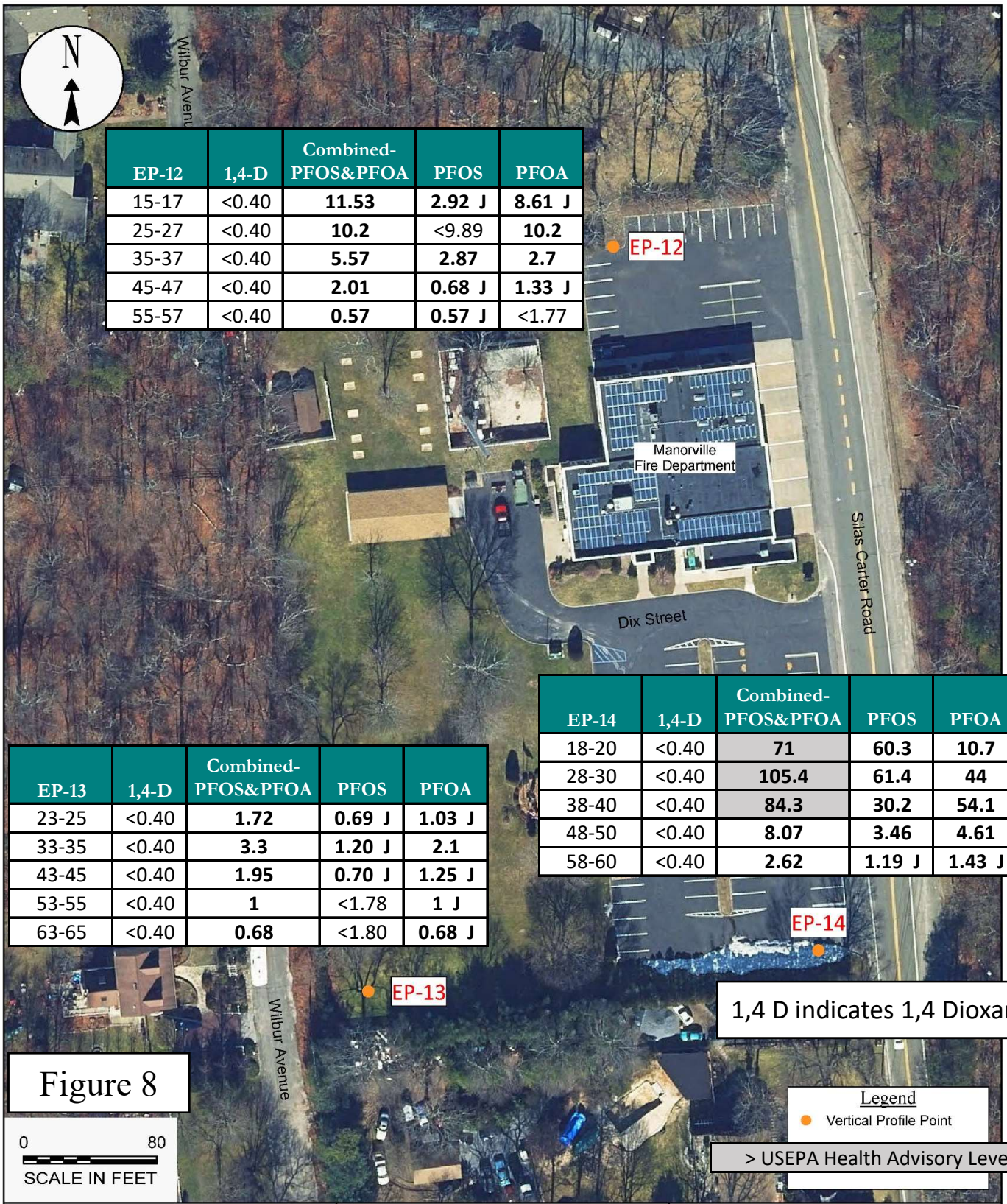
> USEPA Health Advisory Level

Figure 7

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

GW Analytical Results
PFAs (ng/L)
1, 4 Dioxane (ug/L)
June 2019 - July 2019

Mastic Fire Department Station 1
Sunrise Service Road North
Shirley, NY
NYSDEC Spill #18-10934



EP-12	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
15-17	<0.40	**11.53**	**2.92 J**	**8.61 J**
25-27	<0.40	**10.2**	<9.89	**10.2**
35-37	<0.40	**5.57**	**2.87**	**2.7**
45-47	<0.40	**2.01**	**0.68 J**	**1.33 J**
55-57	<0.40	**0.57**	**0.57 J**	<1.77

EP-14	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
18-20	<0.40	**71**	**60.3**	**10.7**
28-30	<0.40	**105.4**	**61.4**	**44**
38-40	<0.40	**84.3**	**30.2**	**54.1**
48-50	<0.40	**8.07**	**3.46**	**4.61**
58-60	<0.40	**2.62**	**1.19 J**	**1.43 J**

EP-13	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
23-25	<0.40	**1.72**	**0.69 J**	**1.03 J**
33-35	<0.40	**3.3**	**1.20 J**	**2.1**
43-45	<0.40	**1.95**	**0.70 J**	**1.25 J**
53-55	<0.40	**1**	<1.78	**1 J**
63-65	<0.40	**0.68**	<1.80	**0.68 J**

1,4 D indicates 1,4 Dioxane

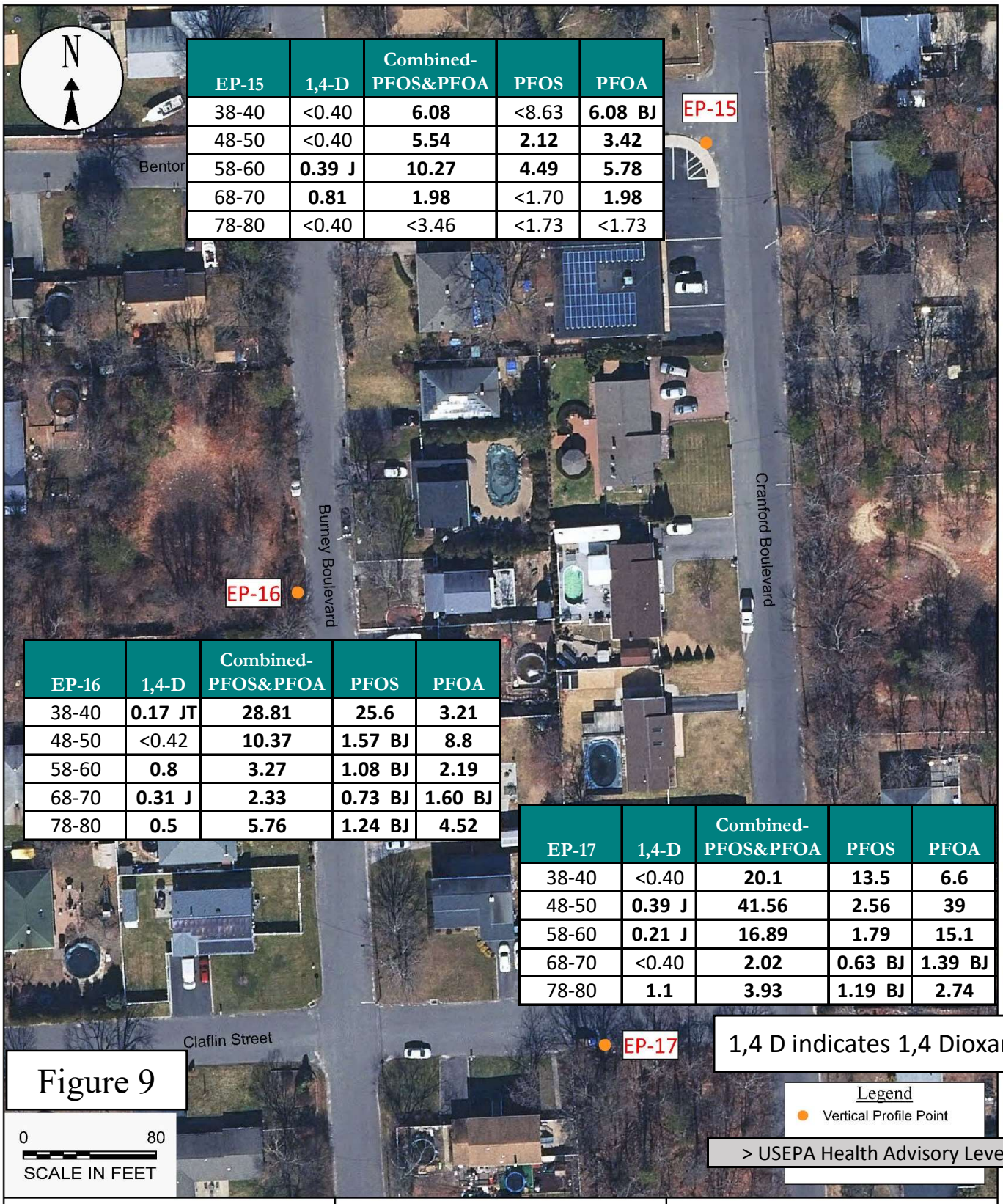
Figure 8

Legend
Vertical Profile Point
> USEPA Health Advisory Level

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

GW Analytical Results
PFAs (ng/L)
1, 4 Dioxane (ug/L)
June 2019 - July 2019

Manorville Fire Department
14 Silas Carter Road
Manorville, NY
Spill #18-10934



EP-15	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
38-40	<0.40	**6.08**	<8.63	**6.08 BJ**
48-50	<0.40	**5.54**	**2.12**	**3.42**
58-60	**0.39 J**	**10.27**	**4.49**	**5.78**
68-70	**0.81**	**1.98**	<1.70	**1.98**
78-80	<0.40	<3.46	<1.73	<1.73

EP-16	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
38-40	**0.17 JT**	**28.81**	**25.6**	**3.21**
48-50	<0.42	**10.37**	**1.57 BJ**	**8.8**
58-60	**0.8**	**3.27**	**1.08 BJ**	**2.19**
68-70	**0.31 J**	**2.33**	**0.73 BJ**	**1.60 BJ**
78-80	**0.5**	**5.76**	**1.24 BJ**	**4.52**

EP-17	1,4-D	Combined-PFOS&PFOA	PFOS	PFOA
38-40	<0.40	**20.1**	**13.5**	**6.6**
48-50	**0.39 J**	**41.56**	**2.56**	**39**
58-60	**0.21 J**	**16.89**	**1.79**	**15.1**
68-70	<0.40	**2.02**	**0.63 BJ**	**1.39 BJ**
78-80	**1.1**	**3.93**	**1.19 BJ**	**2.74**

1,4 D indicates 1,4 Dioxane

Legend
Vertical Profile Point

> USEPA Health Advisory Level

Figure 9

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

GW Analytical Results
PFAs (ng/L)
1, 4 Dioxane (ug/L)
June 2019 - July 2019

Manorville Fire Department, Station 1
170 Cranford Boulevard
Mastic, NY
Spill #18-10934