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December 5, 2019

Mr. William Bennett
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
625 Broadway, 11th Floor
Albany, New York 12233-7014

Subject: Emerging Contaminant Sampling Report
NYSEG Auburn Green Street MGP Site
NYSDEC Site No. 7-06-009

Dear Mr. Bennett:

On behalf of NYSEG, AECOM Technical Services, Inc. (AECOM) has prepared this letter report to provide the results of emerging contaminants (EC) groundwater sampling performed at the Auburn Green Street Manufactured Gas Plant (MGP) site. Background information, a summary of the field activities, and the results of the analyses are presented below.

Background

The sampling was completed in response to the New York State Department of Environmental Conservation (NYSDEC) letter request on May 30, 2018, to NYSEG requiring that groundwater sampling be performed at all its former MGP sites for ECs. Parsons Corporation (Parsons) prepared a Work Plan document entitled ***New York State Emergent Contaminant Field Sampling Plan and Quality Assurance Project Plan*** (FSP) dated September 14, 2018. For the Auburn Green Street MGP Site, AECOM submitted an ***Emerging Contaminants Groundwater Sampling Work Plan*** (Work Plan) to NYSDEC on April 23, 2019 and submitted a revised Work Plan to include NYSDEC requested modifications on July 31, 2019. NYSDEC approved the Work Plan in an email dated September 5, 2019. For the Auburn Green Street MGP Site, NYSEG and the NYSDEC project manager agreed on three overburden monitoring wells for sampling, as shown on Figure 1.

Field Activities

On September 10, 2019, AECOM personnel mobilized to the site to conduct EC sampling at the following three monitoring wells (Figure 1):

Well ID	Location	Screened Interval (ft bgs)
MW-8	Upgradient location	6 - 16
MW-2	Downgradient location	6 - 16
MW-7	Downgradient location	6 - 16

Well purging and sampling activities were performed by AECOM field staff and the field methods and the field quality assurance/quality control (QA/QC) procedures were consistent with the specifications of the FSP and the following guidance information included as attachments to the Work Plan:

- Collection of Groundwater Samples for Per- and Polyfluoroalkyl Substances (PFAS) from Monitoring Wells Sample Protocol, Revision 1.2 (August 9, 2018); and,

- Groundwater Sampling for Emerging Contaminants (July 2018).

During purging, groundwater quality parameters of pH, conductivity, temperature, turbidity, and ORP were monitored. Each well was purged until a minimum of three well volumes was removed. The low-flow purging/sampling logs are provided in Appendix A.

Laboratory Analyses

The groundwater sample containers were labeled and placed into an ice-filled cooler and delivered by AECOM field services staff under chain-of-custody protocol to EurofinsTestAmerica Laboratories, Inc. (TAL), Buffalo, NY, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program analytical laboratory for the requested analyses. The laboratory methods utilized for emerging contaminants were:

- 1,4-dioxane by EPA Method 8270D Selective Ion Monitoring (SIM) analyzed by TAL Buffalo, New York; and,

- 21 PFAS compounds by United States Environmental Protection Agency (EPA) Method 537 Modified (low level) analyzed by TAL Sacramento, California.

Data Quality

Quality control samples (i.e., equipment blank, ambient field blank, and duplicate) were collected in accordance with the Work Plan procedures.

TAL provided the results in an Analytical Services Protocol (ASP) Category B data deliverable. AECOM performed a data review and prepared a Data Usability Summary Report (DUSR) for the laboratory packages. The DUSR is included in Appendix B and includes the laboratory Form I report sheets and the chain of custody record for the sampling. The form I report sheets, included in the DUSR, have been modified with qualifiers as a result of the DUSR review. The data were determined to be usable as reported by the laboratory, with minor qualifications. Additional detail is provided in the DUSR.

The FSP required the reporting limit (RL) for PFAS to not exceed 2 nanograms/liter (ng/L), and the method detection limit (MDL) for 1,4-dioxane to not exceed 0.35 micrograms per liter (µg/L).

The PFAS compounds perfluorobutanoic acid (PFBA) and/or perfluorohexanesulfonic acid (PFHxS) were detected in the method blank sample, equipment blank, and field blank at concentrations greater than the MDL but less than the RL for PFHxS, and greater than the RL for PFBA. The detected results for PFHxS in samples MW-2, MW-2 duplicate, and MW-8 were qualified “U” at the RL. The results of PFBA were qualified “U” at the detected result or RL, whichever is higher, in all samples.

The MDL for all samples analyzed for 1-4-dioxane was 0.1 µg/L, meeting the specification.

Summary of Findings

The laboratory results for the three wells, blind duplicate (collected from MW-2), equipment blank, and ambient blank (PFAS only) are summarized in Table 1. Included in the table are the NYSDEC initial groundwater screening levels, NYSDEC drinking water action levels, NYSDEC groundwater or drinking water awareness levels, as well as New York State Department of Health (NYSDOH) recommended

drinking water maximum contaminant levels (MCLs), collectively referred to herein as "reference levels", where applicable.

On Table 1, where a concentration of a compound was detected (including estimated "J" values), the concentration is shown with a bold font. There were no exceedances of the NYSDEC initial screening levels (groundwater), NYSDEC action levels (drinking water), NYSDEC awareness levels (groundwater or drinking water), or NYSDOH MCLs (drinking water). Key observations from the data are summarized as follows:

- **1,4-dioxane** - 1,4-dioxane was detected in well MW-7 at a concentration of 0.21 micrograms/liter (µg/L). The concentration detected was below the 1 ng/L initial screening level, action level, and recommended MCL.
- **PFOS** - Perfluorooctanesulfonic acid (PFOS) was detected in MW-2 and its duplicate at 1.3 J ng/L and 1.5 J ng/L, respectively. The concentrations detected were below the 1 ng/L initial screening level, action level, and recommended MCL.
- **PFOA** - Perfluorooctanoic acid (PFOA) was detected in samples from MW-2 and MW-8; detected concentrations ranged from 1.4 J ng/L (MW-8) to 2.9 ng/L (MW-2 - duplicate). The concentrations detected were below the 1 ng/L initial screening level, action level, and recommended MCL.
- **Total PFOS and PFOA** - Total PFOS and PFOA ranged between 1.4 ng/L and 4.4 ng/L in the wells sampled. Concentrations detected were below the 70 ng/L awareness level for total PFAS and PFOA in groundwater or drinking water.
- **Other PFAS Compounds** - As presented in Table 1, some additional PFAS compounds were detected at each well ranging from 0.31 J ng/L to 1.5 ng/L. The concentrations detected were below the 100 ng/L awareness level for groundwater or drinking water for individual PFAS compounds. The NYSDOH has not established a recommended MCL for individual PFAS compounds other than PFOS and PFOA.
- **Total NYSDEC Target PFAS List** - Total PFAS ranged between 0.31 and 9.06 ng/L in the wells sampled. The concentrations detected were below the 70 ng/L awareness level for total NYSDEC Target PFAS List in groundwater or drinking water.

Other Sampling and Analyses

In addition to the emerging contaminant analyses and in accordance with the approved Work Plan, Target Compound List (TCL) volatile organic compounds (VOCs) and TCL semi-volatile organic compounds (SVOCs) were collected from the purge water for an investigative derived waste (IDW) sample.

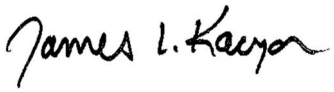
- TCL VOCs by United States Environmental Protection Agency (USEPA) Method SW8260C; and,
- TCL SVOCs by USEPA Method SW8270D.

As presented in Table 2, no VOC or SVOC compounds were detected above disposal criteria.

IDW is stored in a 55-gallon drum in a secure location at Site.

If you have any questions or comments, please contact me via email at james.kaczor@aecom.com or telephone at (716) 923-1300.

Sincerely yours,



James L. Kaczor, PG
Project Director
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Attachments: Table 1
Table 2
Figure 1
Appendix A – Groundwater Sampling Field Forms
Appendix B – DUSR

ec: John Ruspantini, NYSEG
Matt Thorpe, AECOM
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TABLES

Table 1

Analytical Results
Emerging Contaminant Sampling Analyses
NYSEG Auburn Green Street MGP Site
NYSDEC Registry Site No. 7-06-009

Analyte	Units	CAS No.	NYSDEC Initial Screening Level (GW)[1]	NYSDEC Action Level (DW)[1]	NYSDEC Awareness Level (GW or DW)[1]	NYSDOH Recommended MCL (DW)[2]	Location Name: MW-02	MW-02	MW-07	MW-08	FIELDQC	FIELDQC
							Sample Name: MW-2	FD-20190910-1	MW-7	MW-8	AA-20190910-1	EB-20190910-1
							Sample Date: 9/10/2019	9/10/2019	9/10/2019	9/10/2019	9/10/2019	9/10/2019
							Parent Sample:	MW-02				
SW846-8270D SIM												
1,4-Dioxane	ug/L	123-91-1	1.0	1.0	NE	1.0	0.10 U	0.10 U	**0.21**	0.10 U	NS	0.10 U
PFAS - EPA 537 Modified												
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ng/L	2991-50-6	NE	NE	100	NE	1.7 U	1.8 U	1.8 U	1.8 U	1.6 U	1.7 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ng/L	2355-31-9	NE	NE	100	NE	2.9 U	3.0 U	3 U	2.9 U	2.7 U	2.8 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	375-73-5	NE	NE	100	NE	**1.1 J**	**0.56 J**	0.19 U	**0.61 J**	0.17 U	0.18 U
Perfluorobutanoic acid (PFBA)	ng/L	375-22-4	NE	NE	100	NE	7.5 U	8.8 U	1.9 U	6.7 U	**4.1**	0.32 U
Perfluorodecanesulfonic acid (PFDS)	ng/L	335-77-3	NE	NE	100	NE	0.29 U	0.31 U	0.31 U	0.30 U	0.28 U	0.29 U
Perfluorodecanoic acid (PFDA)	ng/L	335-76-2	NE	NE	100	NE	0.29 U	0.3 U	0.31 U	0.29 U	0.27 U	0.28 U
Perfluorododecanoic acid(PFDoA)	ng/L	307-55-1	NE	NE	100	NE	0.51 U	0.53 U	0.31 U	0.51 U	0.47 U	0.50 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	375-92-8	NE	NE	100	NE	0.17 U	0.18 U	0.31 U	0.18 U	0.16 U	0.17 U
Perfluorohexanoic acid (PFHxA)	ng/L	307-24-4	NE	NE	100	NE	**1.1 J**	**1.4 J**	0.31 U	**1.6 J**	0.50 U	0.53 U
Perfluorooctanesulfonamide (PFOSA)	ng/L	754-91-6	NE	NE	100	NE	0.32 U	**0.36 J**	**0.31 J**	0.33 U	0.30 U	0.32 U
Perfluoropentanoic acid (PFPeA)	ng/L	2706-90-3	NE	NE	100	NE	**0.95 J**	**0.84 J**	0.31 U	**1.5 J**	0.42 U	0.45 U
Perfluorotetradecanoic acid (PFTeA)	ng/L	376-06-7	NE	NE	100	NE	0.27 U	0.28 U	0.31 U	0.27 U	0.25 U	0.27 U
Perfluoroheptanoic acid (PFHpA)	ng/L	375-85-9	NE	NE	100	NE	**0.91 J**	**1.1 J**	0.31 U	**0.65 J**	0.22 U	0.23 U
Perfluorotridecanoic acid (PFTriA)	ng/L	72629-94-8	NE	NE	100	NE	1.2 U	1.3 U	0.31 U	1.2 U	1.1 U	1.2 U
Perfluoroundecanoic acid (PFUnA)	ng/L	2058-94-8	NE	NE	100	NE	1.0 U	1.1 U	0.31 U	1.0 U	0.95 U	1.0 U
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ng/L	39108-34-4	NE	NE	100	NE	1.8 U	1.9 U	0.31 U	1.9 U	1.7 U	1.8 U
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ng/L	27619-97-2	NE	NE	100	NE	1.8 U	1.9 U	0.31 U	1.9 U	1.7 U	1.8 U
Perfluorohexanesulfonic acid (PFHxS)	ng/L	355-46-4	NE	NE	100	NE	1.8 U	1.9 U	0.31 U	1.9 U	**0.22 J**	**0.29 J**
Perfluorononanoic acid (PFNA)	ng/L	375-95-1	NE	NE	100	NE	**0.52 J**	**0.40 J**	0.31 U	0.25 U	0.23 U	0.25 U
Perfluorooctanesulfonic acid (PFOS)	ng/L	1763-23-1	10	70	NA	10	**1.3 J**	**1.5 J**	0.31 U	0.50 U	0.47 U	0.49 U
Perfluorooctanoic acid (PFOA)	ng/L	335-67-1	10	70	NA	10	**2.7**	**2.9**	0.31 U	**1.4 J**	0.73 U	0.78 U
Total NYSDEC Target PFAS List	ng/L	NA	NE	NE	500	NE	**8.58**	**9.06**	**0.31**	**5.76**	**4.32**	**0.29**
Total PFOS and PFOA	ng/L	NA	NE	NE	70	NE	**4.0**	**4.4**	**U**	**1.4**	**U**	**U**

Notes:
Detected values are shown in bold.
µg/L - micrograms per liter (parts per billion)
ng/L - nanograms per liter (parts per trillion)
J - Result is less than the reporting limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.
U - not detected above the method detection limit shown.
NA - Not applicable.
NS - No Sample
DW - Drinking Water
GW - Groundwater
MCL - Maximum Contaminant Level
NE - Not Established

References:

1. NYSDEC, 2019. Correspondence, G. Heitzman, P.E. to K. Schoeberl, Environmental Energy Alliance of New York. *Responses to Questions Regarding Emerging Contaminants.* June 24, 2019.
2. New York State Drinking Water Quality Council, 2018. *Drinking Water Quality Council Recommends Nations Most Protective Maximum Contaminant Levels for Three Unregulated Contaminants in Drinking Water.* December 18, 2018.

Table 2

Analytical Results
IDW Sampling Analyses
NYSEG Auburn Green Street MGP Site
NYSDEC Registry Site No. 7-06-009

				Location Name	IDW
				Sample Name	WC-20190910-1
				Sample Date	9/10/2019
				Parent Sample	
	Analyte	Units	CAS No.	Criteria*	
	Volatile Organic Compounds - SW8260C				
	1,1,1-Trichloroethane	ug/L	71-55-6	-	0.82 U
	1,1,2,2-Tetrachloroethane	ug/L	79-34-5	-	0.21 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	76-13-1	-	0.31 U
	1,1,2-Trichloroethane	ug/L	79-00-5	-	0.23 U
	1,1-Dichloroethane	ug/L	75-34-3	-	0.38 U
	1,1-Dichloroethene	ug/L	75-35-4	700	0.29 U
	1,2,4-Trichlorobenzene	ug/L	120-82-1	-	0.41 U
	1,2-Dibromo-3-chloropropane	ug/L	96-12-8	-	0.39 U
	1,2-Dibromoethane (Ethylene dibromide)	ug/L	106-93-4	-	0.73 U
	1,2-Dichlorobenzene	ug/L	95-50-1	-	0.79 U
	1,2-Dichloroethane	ug/L	107-06-2	500	0.21 U
	1,2-Dichloroethene (cis)	ug/L	156-59-2	-	0.81 U
	1,2-Dichloroethene (trans)	ug/L	156-60-5	-	0.90 U
	1,2-Dichloropropane	ug/L	78-87-5	-	0.72 U
	1,3-Dichlorobenzene	ug/L	541-71-1	-	0.78 U
	1,3-Dichloropropene (cis)	ug/L	10061-01-5	-	0.36 U
	1,3-Dichloropropene (trans)	ug/L	10061-02-6	-	0.37 U
	1,4-Dichlorobenzene	ug/L	106-46-7	7500	0.84 U
	2-Hexanone	ug/L	591-78-6	-	1.2 U
	4-Methyl-2-pentanone	ug/L	108-10-1	-	2.1 U
	Acetone	ug/L	67-64-1	-	**55**
	Benzene	ug/L	71-43-2	500	0.41 U
	Bromodichloromethane	ug/L	75-27-4	-	0.39 U
	Bromoform	ug/L	75-25-2	-	0.26 U
	Bromomethane	ug/L	74-83-9	-	0.69 U
	Carbon disulfide	ug/L	75-15-0	-	0.19 U
	Carbon tetrachloride	ug/L	56-23-5	500	0.27 U
	Chlorobenzene	ug/L	108-90-7	100000	0.75 U
	Chloroethane	ug/L	75-00-3	-	0.32 U
	Chloroform	ug/L	67-66-3	6000	0.34 U
	Chloromethane	ug/L	74-87-3	-	0.35 U
	Cyclohexane	ug/L	110-82-7	-	0.18 U
	Dibromochloromethane	ug/L	124-48-1	-	0.32 U
	Dichlorodifluoromethane	ug/L	75-71-8	-	0.68 U
	Ethylbenzene	ug/L	100-41-4	-	0.74 U
	Isopropylbenzene (Cumene)	ug/L	98-82-8	-	0.79 U
	Methyl acetate	ug/L	79-20-9	-	1.3 U
	Methyl ethyl ketone (2-Butanone)	ug/L	78-93-3	200000	1.3 U
	Methyl tert-butyl ether	ug/L	1634-04-4	-	0.16 U
	Methylcyclohexane	ug/L	108-87-2	-	0.16 U
	Methylene chloride	ug/L	75-09-2	-	0.44 U
	Styrene	ug/L	100-42-5	-	0.73 U
	Tetrachloroethene	ug/L	127-18-4	700	0.36 U
	Toluene	ug/L	108-88-3	-	0.51 U
	Trichloroethene	ug/L	79-01-6	500	0.46 U
	Trichlorofluoromethane	ug/L	75-69-4	-	0.88 U
	Vinyl chloride	ug/L	75-01-4	200	0.9 U
	Xylene (total)	ug/L	1330-20-7	-	0.66 U

Notes:
Detected values are shown in bold.
*Criteria- Hazardous Waste Criteria, 40 CFR Part 261, Subpart C - Characteristics of Hazardous Waste
Flags assigned during chemistry validation are shown
ug/L - micrograms per liter (parts per billion
J - Result is less than the reporting limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.
U - not detected above the method detection limit shown

Table 2

Analytical Results
IDW Sampling Analyses
NYSEG Auburn Green Street MGP Site
NYSDEC Registry Site No. 7-06-009

				Location Name	IDW
				Sample Name	WC-20190910-1
				Sample Date	9/10/2019
				Parent Sample	
	Analyte	Units	CAS No.	Criteria*	
	Semi-Volatile Organic Compounds - SW8270D				
	1,1-Biphenyl	ug/L	92-52-4	-	0.65 U
	1,4-Dioxane	ug/L	123-91-1	-	NA
	2,2-oxybis(1-Chloropropane)	ug/L	108-60-1	-	0.52 U
	2,4,5-Trichlorophenol	ug/L	95-95-4	400000	0.48 U
	2,4,6-Trichlorophenol	ug/L	88-06-2	2000	0.61 U
	2,4-Dichlorophenol	ug/L	120-83-2	-	0.51 U
	2,4-Dimethylphenol	ug/L	105-67-9	-	0.50 U
	2,4-Dinitrophenol	ug/L	51-28-5	-	2.2 U
	2,4-Dinitrotoluene	ug/L	121-14-2	130	0.45 U
	2,6-Dinitrotoluene	ug/L	606-20-2	-	0.40 U
	2-Chloronaphthalene	ug/L	91-58-7	-	0.46 U
	2-Chlorophenol	ug/L	95-57-8	-	0.53 U
	2-Methylnaphthalene	ug/L	91-57-6	-	0.60 U
	2-Methylphenol (o-cresol)	ug/L	95-48-7	200000	0.40 U
	2-Nitroaniline	ug/L	88-74-4	-	0.42 U
	2-Nitrophenol	ug/L	88-75-5	-	0.48 U
	3,3-Dichlorobenzidine	ug/L	91-94-1	-	0.40 U
	3-Nitroaniline	ug/L	99-09-2	-	0.48 U
	4,6-Dinitro-2-methylphenol	ug/L	534-52-1	-	2.2 U
	4-Bromophenyl-phenylether	ug/L	101-55-3	-	0.45 U
	4-Chloro-3-methylphenol	ug/L	59-50-7	-	0.45 U
	4-Chloroaniline	ug/L	106-47-8	-	0.59 U
	4-Chlorophenyl-phenylether	ug/L	7005-72-3	-	0.35 U
	4-Methylphenol (p-cresol)	ug/L	106-44-5	200000	0.36 U
	4-Nitroaniline	ug/L	100-01-6	-	0.25 U
	4-Nitrophenol	ug/L	100-02-7	-	1.5 U
	Acenaphthene	ug/L	83-32-9	-	0.41 U
	Acenaphthylene	ug/L	208-96-8	-	0.38 U
	Acetophenone	ug/L	98-86-2	-	0.54 U
	Anthracene	ug/L	120-12-7	-	0.28 U
	Atrazine	ug/L	1912-24-9	-	0.46 U
	Benzaldehyde	ug/L	100-52-7	-	0.27 U
	Benzo(a)anthracene	ug/L	56-55-3	-	0.36 U
	Benzo(a)pyrene	ug/L	50-32-8	-	0.47 U
	Benzo(b)fluoranthene	ug/L	205-99-2	-	0.34 U
	Benzo(g,h,i)perylene	ug/L	191-24-2	-	0.35 U
	Benzo(k)fluoranthene	ug/L	207-8-9	-	0.73 U
	bis(2-Chloroethoxy)methane	ug/L	111-91-1	-	0.35 U
	bis(2-Chloroethyl)ether	ug/L	111-44-4	-	0.40 U
	bis(2-Ethylhexyl)phthalate	ug/L	117-81-7	-	2.2 U
	Butylbenzylphthalate	ug/L	85-68-7	-	1.0 U
	Caprolactam	ug/L	105-60-2	-	2.2 U
	Carbazole	ug/L	86-74-8	-	0.30 U
	Chrysene	ug/L	218-01-9	-	0.33 U
	Dibenz(a,h)anthracene	ug/L	53-70-3	-	0.42 U
	Dibenzofuran	ug/L	132-64-9	-	0.51 U
	Diethylphthalate	ug/L	84-66-2	-	0.22 U
	Dimethylphthalate	ug/L	131-11-3	-	0.36 U

Notes:
Detected values are shown in bold.
*Criteria- Hazardous Waste Criteria, 40 CFR Part 261, Subpart C - Characteristics of Hazardous Waste
Flags assigned during chemistry validation are shown
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J - Result is less than the reporting limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.
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				Location Name	IDW
				Sample Name	WC-20190910-1
				Sample Date	9/10/2019
				Parent Sample	
	Analyte	Units	CAS No.	Criteria*	
	Semi-Volatile Organic Compounds - SW8270D				
	Di-n-butylphthalate	ug/L	84-74-2	-	**0.44 J**
	Di-n-octylphthalate	ug/L	117-84-0	-	0.47 U
	Fluoranthene	ug/L	206-44-0	-	0.40 U
	Fluorene	ug/L	86-73-7	-	0.36 U
	Hexachlorobenzene	ug/L	118-74-1	130	0.51 U
	Hexachlorobutadiene	ug/L	87-68-3	500	0.68 U
	Hexachlorocyclopentadiene	ug/L	77-47-4	-	0.59 U
	Hexachloroethane	ug/L	67-72-1	3000	0.59 U
	Indeno(1,2,3-cd)pyrene	ug/L	193-39-5	-	0.47 U
	Isophorone	ug/L	78-59-1	-	0.43 U
	Naphthalene	ug/L	91-20-3	-	0.76 U
	Nitrobenzene	ug/L	98-95-3	2000	0.29 U
	N-Nitroso-di-n-propylamine	ug/L	621-64-7	-	0.54 U
	N-Nitrosodiphenylamine	ug/L	86-30-6	-	0.51 U
	Pentachlorophenol	ug/L	87-86-5	100000	2.2 U
	Phenanthrene	ug/L	85-01-8	-	0.44 U
	Phenol	ug/L	108-95-2	-	0.39 U
	Pyrene	ug/L	129-00-0	-	0.34 U

Notes:
Detected values are shown in bold.
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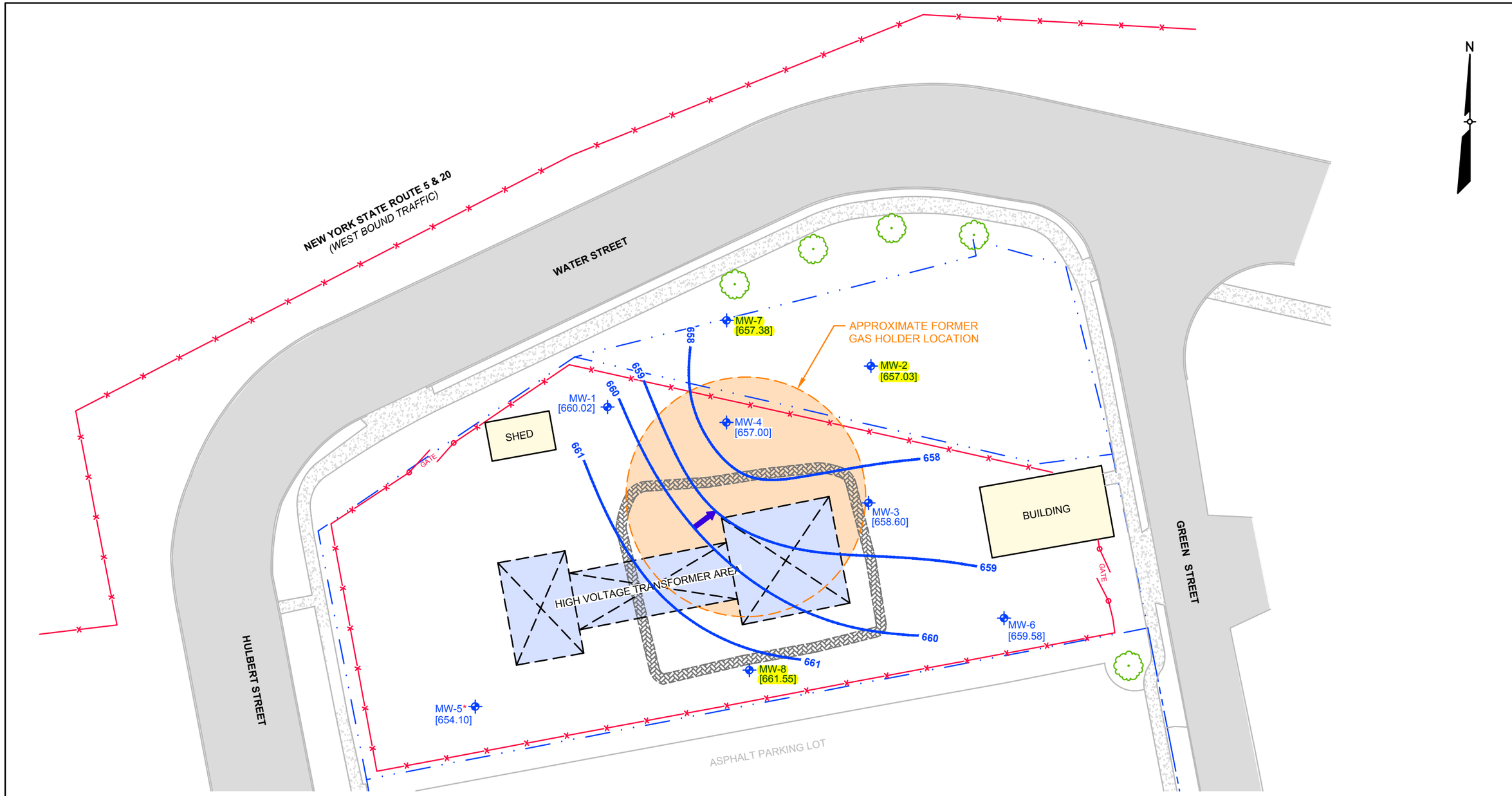
FIGURES

Figure 1: Monitoring Well Location Map



LEGEND

- MONITORING WELL LOCATION
- [657.00] GROUNDWATER RESULT (feet NAVD 88)
- GROUNDWATER CONTOUR
- BUILDING
- PAVEMENT
- BERM
- GROUNDWATER FLOW DIRECTION
- APPROXIMATE PROPERTY BOUNDARY
- FENCE
- APPROXIMATE FORMER GAS HOLDER LOCATION

NOTES

1. GROUNDWATER ELEVATION MEASURED ON MAY 12, 2014.
2. MW-5* GROUNDWATER ELEVATION WAS NOT INCLUDED IN CONTOURING. THIS WELL ELEVATION IS BELIEVED TO REPRESENT A DIFFERENT WATER LAYER WITH A LOWER HYDRAULIC HEAD COMPARED TO OTHER SITE WELLS.
3. MONITORING WELLS HIGHLIGHTED IN YELLOW ARE THE LOCATIONS TO BE SAMPLED FOR EMERGENT CONTAMINANTS.

0 15 30 60
SCALE IN FEET

SOURCE: BASEMAP CREATED USING *T.G. MILLER P.C. ENGINEERS AND SURVEYORS* TOPOGRAPHIC MAP; JUNE 20, 2013.

AECOM
257 West Genesee Street, Suite 400
Buffalo, NY 14202
P: 716.856.5636

Figure 1
Monitoring Well Location Map

Former Auburn Green Street MGP Site

Green Street
Auburn, Cayuga County, New York

April 2019 60543583

\\ursbuffalo.us.ie.urs\Buffalo\Projects\60543583_AubrnGrnFS\900-CAD-GIS\910-CAD\CAD\60269784_009 Monitoring Well Location Map.dwg, 3/29/2019 3:44:05 PM, mdl

APPENDIX A

Groundwater Sampling Field Forms

Low Flow Ground Water Sampling Log

Date	9/10/19	Personnel	S. Connelly	Weather	64°F Clear
Site Name	NYSEG Auburn Green St	Evacuation Method	Low Flow	Well #	MW-8
Site Location	NYSEG Auburn	Sampling Method		Project #	60543583-6

Well Information:

Depth of Well	17.23 ft.	17.23	
Depth to Water	4.94 ft.	4.94	
H_{wc}	ft.	12.29 x 0.163	
Depth to Intake	ft.	2.0 x 3 = 6 gallons	

*Measurements taken from:
- [ ] Top of Well Casing
- [ ] Top of Protective Casing
- [ ] (Other, Specify)

Start Purge Time:

		10%	0.1	3%	10 mV	10%	10%	100 - 500 mL/min
Elapsed Time (min)	**Depth to Water (ft)**	**Temperature (celsius)**	**pH**	**Conductivity (ms/cm)**	**Oxidation Reduction Potential**	**Dissolved Oxygen (mg/L)**	**Turbidity (NTU)**	**Flow Rate (mL/min)**
1125	5.69	17.77	7.00	8.07	-127	2.97	3.3	350
1135	5.90	18.54	7.04	7.78	-134	2.82	23.8	350
1145	6.02	19.47	7.02	7.42	-129	2.35	48.7	350
1155	6.10	20.08	7.02	6.96	-134	3.30	12.3	350
1205	6.16	19.36	7.04	6.85	-140	2.46	0.0	350
1210	6.21	19.01	7.04	6.80	-141	2.32	0.0	350
1215	6.23	19.05	7.05	6.73	-142	2.24	0.0	350
1220	6.27	19.07	7.05	6.64	-142	2.16	0.0	350
1225	6.27	19.09	7.05	6.50	-142	2.02	0.0	350
1230								

End Purge Time:

Water Sample

Time Collected: 1225

Total volume of purged water removed: ~6.5 (gallons)

Physical appearance at start:		Physical appearance at stop:	
Color	Clear w/ light brown	Color	Clear
Odor	None	Odor	None
Sheen/Free Product	None	Sheen/Free Product	None

Field Test Results:

Dissolved ferrous iron: _____

Dissolved total iron: _____

Dissolved total manganese: _____

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
VOCs - 8260	40mL Voa			HCL	-
PAH +1,4 Dx - 8270	1000mL Amber			None	-
Metals/Hg	500mL Plastic			HNO3	-
PFC Mod 537	250mL Plastic			None	-

Low Flow Ground Water Sampling Log

Date	9/10/19	Personnel	S. Connolly	Weather	69°F Sunny
Site Name	NYSEG Auburn Green St	Evacuation Method		Well #	MW-7
Site Location	NYSEG Auburn	Sampling Method	Low Flow	Project #	60543583-6

Well Information:

Depth of Well 17.57 ft. (17.57 − 7.85 = 9.27) × 0.163 = 1.58 × 3 = 4.75 gallons

Depth to Water 7.85 ft.

H_{wc} ft.

Depth to Intake ft.

*Measurements taken from:
- ☐ Top of Well Casing
- ☐ Top of Protective Casing
- ☐ (Other, Specify)

Start Purge Time:

		10%	0.1	3%	10 mV	10%	10%	100 - 500 mL/min
Elapsed Time (min)	**Depth to Water (ft)**	**Temperature (celsius)**	**pH**	**Conductivity (ms/cm)**	**Oxidation Reduction Potential**	**Dissolved Oxygen (mg/L)**	**Turbidity (NTU)**	**Flow Rate (mL/min)**
1305	8.13	17.02	7.14	1.45	-74	1.94	102	400
1315	8.27	16.61	7.06	1.50	-106	1.10	32.4	400
1325	8.29	16.63	7.01	1.59	-105	0.97	23.2	400
1330	8.30	16.60	7.00	1.61	-104	0.93	13.8	400
1335	8.30	16.71	6.99	1.62	-104	0.91	13.4	400
1340	8.30	16.76	7.00	1.63	-105	0.91	9.9	400
1345	8.30	16.75	6.99	1.64	-105	0.90	6.9	400

End Purge Time:

Water Sample

Time Collected: 1345

Total volume of purged water removed: 4.5 (gallons)

Physical appearance at start:
- Color: clear
- Odor: None
- Sheen/Free Product: None

Physical appearance at stop:
- Color: clear
- Odor: None
- Sheen/Free Product: None

MS/MSD taken @ this well

Field Test Results:

Dissolved ferrous iron:

Dissolved total iron:

Dissolved total manganese:

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
VOCs - 8260	40mL Voa			HCL	-
PAH +1,4 Dx - 8270	1000mL Amber			None	-
Metals/Hg	500mL Plastic			HNO3	-
PFC Mod 537	250mL Plastic			None	-

Low Flow Ground Water Sampling Log

Date	9/10/19	Personnel	S. Connelly	Weather	69°F, Mostly Sunny
Site Name	NYSEG Auburn Canoga St.	Evacuation Method		Well #	MW-2
Site Location	NYSEG Auburn	Sampling Method	Low Flow	Project #	605435-83-6

Well information:

Depth of Well	18.0 ft.	18.0 - 7.51 =	*Measurements taken from:
Depth to Water	7.51 ft.	10.49 x 0.163 =	☐ Top of Well Casing
H_{wc}	ft.	1.70 x 3 = 5.12	☐ Top of Protective Casing
Depth to Intake	ft.	5 gallons	☐ (Other, Specify)

Start Purge Time:

Elapsed Time (min)	Depth to Water (ft)	Temperature (celsius) 10%	pH 0.1	Conductivity (ms/cm) 3%	Oxidation Reduction Potential 10 mV	Dissolved Oxygen (mg/L) 10%	Turbidity (NTU) 10%	Flow Rate (mL/min) 100 - 500 mL/min
1425	7.71	12.30	7.13	1.91	77	2.27	144	400
1435	7.86	17.69	6.71	1.27	84	1.81	10.5	400
1445	7.88	17.70	6.76	1.27	87	1.72	4.8	400
1450	7.91	17.71	6.80	1.28	94	1.57	0.0	400
1455	7.95	17.71	6.82	1.29	98	1.13	0.0	400
1500	7.95	17.63	6.83	1.29	101	1.10	0.0	400
1505	7.95	17.55	6.83	1.29	104	1.08	0.0	400
1510	7.95	17.59	6.84	1.29	107	1.07	0.0	400
1515	7.95	17.59	6.83	1.29	112	1.05	0.0	400

End Purge Time: 1525

Water Sample

Field Duplicate taken @ this well

Time Collected: 1515

Total volume of purged water removed: 6 (gallons)

FD-20190910-

Physical appearance at start:

Color clear
Odor none
Sheen/Free Product none

Physical appearance at stop:

Color clear
Odor none
Sheen/Free Product none

Field Test Results:

Dissolved ferrous iron: _____
Dissolved total iron: _____
Dissolved total manganese: _____

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
VOCs - 8260	40mL Voa			HCL	-
PAH +1,4 Dx - 8270	1000mL Amber			None	-
Metals/Hg	500mL Plastic			HNO3	-
PFC Mod 537	250mL Plastic			None	-

1,4 DIOXANE AND PFAS SAMPLING CHECKLIST

Site Name: NYSEG Auburn Genesee St Task: 60543583 Task 6

Weather (temp/precip): 64°F, Clear Skys Date: 9/10/19

Field Clothing and PPE:

- ☑ Ansell TNT® Powder-Free Nitrile Gloves ONLY
- ☑ No clothing or boots containing Gore-Tex™
- ☑ No clothing or boots treated with water-resistant spray
- ☑ Safety boots made from polyurethane and PVC or leather boots covered with overboots
- ☑ No materials containing Tyvek®
- ☑ Field crew has not used fabric softener on clothing
- ☑ Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- ☑ Field crew has not applied unauthorized sunscreen or insect repellant
- ☑ Samplers don fresh nitrile gloves for each sample collected

Field Equipment:

- ☑ No Teflon® or LDPE containing materials other than QED brand LDPE
- ☑ All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene or QED brand LDPE
- ☑ No waterproof field books, waterproof paper or waterproof bottle labels, waterproof markers/Sharpies®
- ☑ No plastic clipboards, binders, or spiral hard cover notebooks
- ☑ No Post-It Notes®
- ☑ Coolers filled with regular ice only; no chemical (blue) ice packs in possession

Sample Containers:

- ☑ Containers for PFASs Shipped in separate cooler
- ☑ Sample containers made of HDPE or polypropylene
- ☑ Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable): (NA)

- ☐ Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- ☑ "PFAS-free" water on-site for decontamination of sample equipment; no other water sources to be used
- ☑ Alconox® or 7th Generation Free & Clear Dish Soap to be used as decontamination cleaning agents

Food Considerations:

- ☑ No food or drink on-site with exception of bottled water and/or hydration drinks (*i.e.*, Gatorade® and Powerade®) that is available for consumption only in the staging area

Vehicle Considerations:

- ☑ Avoid utilizing areas inside vehicle as sample staging areas

If any applicable boxes cannot be checked, the field team leader shall describe the deviations on the back and work with field personnel to address issues prior to commencement work. See additional information on the back of this form.

Sampling Equipment and Supply Summary (include brand names and serial numbers where available)

Decontamination Fluid Source(s): Alconox w/ water

Soap and other fluids used: NA

Gloves: Nitrile Gloves : Rope: NA

Sampling Equipment: PFAS Approved Low Flow Equipment w/ HDPE Tubing

Field Team Names: Sean P. Connally

Field Team Leader Signature: [signature]

Deviation Summary:

If possible, materials identified as potentially containing PFASs should be relocated to a separate area of the site as far away as possible from the sampling location(s) and containerized if practicable. Notes should include method of response including type of materials on site and how they were moved and containerized.

Each of the three wells had dedicated LDPE tubing. Upon each purging event, the LDPE tubing was removed and thrown in a trash bag away from the well and replaced w/ HDPE tubing.

Field Team Leader Name: Sean P. Connelly

Field Team Leader Signature: _____ Time: 9/10/19 @ 1610

APPENDIX B

Data Usability Summary Report

DATA USABILITY SUMMARY REPORT

EMERGING CONTAMINANTS INVESTIGATION
NYSEG AUBURN GREEN STREET FORMER MPG SITE
AUBURN, NEW YORK
SITE #7-06-009

Analyses Performed by:

EUROFINS TESTAMERICA LABORATORIES, INC.
BUFFALO, NEW YORK and SACRAMENTO, CALIFORNIA

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

Prepared by:

AECOM
257 WEST GENESEE STREET, SUITE 400
BUFFALO, NY 14202-2657

OCTOBER 2019

TABLE OF CONTENTS

TABLES
(Following Text)

ATTACHMENTS

1.0 INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for Data Deliverables and the Development of Data Usability and Summary Reports*, May 2010. This DUSR discusses the data usability for: 3 groundwater (GW) samples, 1 GW field duplicate (FD) sample, 1 GW matrix spike/matrix spike duplicate (MS/MSD) pair, 1 investigation derived waste (IDW) sample, 1 equipment blank, and one field blank collected by AECOM personnel on September 10, 2019 as part of the emerging contaminates investigation at the NYSEG Auburn Green Street former MGP site, Site No. 7-06-009.

2.0 ANALYTICAL METHODOLOGIES/DATA VALIDATION PROCEDURES

The samples were sent to Eurofins Testamerica Laboratories Inc., (Buffalo, NY and Sacramento, CA) for analysis and were analyzed for the following parameters (not all samples were analyzed for all parameters):

- Target Compound List (TCL) Volatile Organic Compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method SW8260C;
- TCL Semivolatile Organic Compounds (SVOCs) by USEPA Method SW8270D;
- 1,4-Dioxane by USEPA Method 8270D Selective Ion Monitoring (SIM); and
- Per- and Polyfluoroalkyl Substances (PFAS) by Method 537-Modified.

A limited data validation was performed in accordance with the guidelines in the following USEPA Region II documents along with the method and laboratory standard operation procedure (SOP):

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8260B & 8260C, SOP HW-24, Rev. 4,* October 2014;
- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8270D, SOP HW-22, Rev. 5*, December 2010; and
- *Data Review and Validation Guidelines for Perfluoroalkyl Substances (PFASs) analyzed using EPA Method 537, EPA 910-R-18-001*, November 2018.

The limited validation included: a review of completeness of all required deliverables; holding times; a review of quality control (QC) results [blanks, instrument tunes, calibration standards, MS/MSD recoveries, and laboratory control sample (LCS) recoveries] to determine if the data are within the

protocol-required limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

Qualifications applied to the data during the validation include 'U' (non-detect). Definitions of USEPA Region II data qualifiers are presented at the end of this text. The validated analytical results for all samples are presented in Table 1 and 2. Copies of the validated laboratory results (i.e., Form 1's) are presented in Attachment A. Documentation supporting the qualification of data is presented in Attachment B. Only analytical deviations affecting data usability are discussed in this report.

3.0 DATA DELIVERABLE COMPLETENESS

Full deliverable data packages [i.e., NYSDEC Analytical Services Protocol (ASP) Category B (or equivalent)] were provided by the laboratory, which included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

4.0 SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC). All samples were analyzed within the required holding times.

5.0 NON-CONFORMANCES

Method Blanks

The PFAS perfluorobutanoic acid (PFBA) and/or perfluorohexanesulfonic acid (PFHxS) were detected in the method blank, equipment blank, and field blank at concentrations greater than the method detection limit (MDL) but less than the reporting limit (RL) for PFHxS and greater than the RL for PFBA. The detected results for PFHxS in samples MW-2, FD-20190910-1 (MW-2) and MW-8 have been qualified 'U' at the RL. The results for PFBA have been qualified 'U' at the detected result or RL, whichever is higher, in all samples.

Support documentation (i.e., Forms 1,4) are presented in Attachment B.

Field Duplicate

A field duplicate was collected for sample MW-2. The results exhibited good analytical precision.

6.0 SAMPLE RESULTS AND REPORTING

All results and quantitation/detection limits were reported in accordance with method requirements and were adjusted for sample volume and dilution factors (where applicable).

7.0 SUMMARY

All sample analyses were found to be compliant with the method criteria, except where previously noted. Those results qualified 'U' should be considered non-detect. All other sample results are usable as reported. AECOM does not recommend the recollection of any samples at this time.

Prepared By: Ann Marie Kropovitch, Chemist **Date:** 10/9/19

Reviewed By: George E. Kisluk, Senior Chemist **Date:** 10/9/19

DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

U – The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

NJ – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

D – The positive value is the result from a secondary dilution analysis.

TABLE 1
VALIDATED SAMPLE ANALYTICAL RESULTS
NYSEG AUBURN GREEN STREET FORMER MGP SITE

Location ID		IDW	MW-02	MW-02	MW-07	MW-08
Sample ID		WC-20190910-1	FD-20190910-1	MW-2	MW-7	MW-8
Matrix		Waste Water	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		09/10/19	09/10/19	09/10/19	09/10/19	09/10/19
Parameter	Units		Field Duplicate (1-1)			
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/L	0.82 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	UG/L	0.21 U	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	0.31 U	NA	NA	NA	NA
1,1,2-Trichloroethane	UG/L	0.23 U	NA	NA	NA	NA
1,1-Dichloroethane	UG/L	0.38 U	NA	NA	NA	NA
1,1-Dichloroethene	UG/L	0.29 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	UG/L	0.41 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/L	0.39 U	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	UG/L	0.73 U	NA	NA	NA	NA
1,2-Dichlorobenzene	UG/L	0.79 U	NA	NA	NA	NA
1,2-Dichloroethane	UG/L	0.21 U	NA	NA	NA	NA
1,2-Dichloroethene (cis)	UG/L	0.81 U	NA	NA	NA	NA
1,2-Dichloroethene (trans)	UG/L	0.90 U	NA	NA	NA	NA
1,2-Dichloropropane	UG/L	0.72 U	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/L	0.78 U	NA	NA	NA	NA
1,3-Dichloropropene (cis)	UG/L	0.36 U	NA	NA	NA	NA
1,3-Dichloropropene (trans)	UG/L	0.37 U	NA	NA	NA	NA
1,4-Dichlorobenzene	UG/L	0.84 U	NA	NA	NA	NA
2-Hexanone	UG/L	1.2 U	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/L	2.1 U	NA	NA	NA	NA
Acetone	UG/L	55	NA	NA	NA	NA
Benzene	UG/L	0.41 U	NA	NA	NA	NA
Bromodichloromethane	UG/L	0.39 U	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Made By: AMK 10/9/19
Checked By: GEK 10/9/19

Detection Limits shown are MDL

TABLE 1
VALIDATED SAMPLE ANALYTICAL RESULTS
NYSEG AUBURN GREEN STREET FORMER MGP SITE

Location ID		IDW	MW-02	MW-02	MW-07	MW-08
Sample ID		WC-20190910-1	FD-20190910-1	MW-2	MW-7	MW-8
Matrix		Waste Water	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		09/10/19	09/10/19	09/10/19	09/10/19	09/10/19
Parameter	Units		Field Duplicate (1-1)			
Volatile Organic Compounds						
Bromoform	UG/L	0.26 U	NA	NA	NA	NA
Bromomethane	UG/L	0.69 U	NA	NA	NA	NA
Carbon disulfide	UG/L	0.19 U	NA	NA	NA	NA
Carbon tetrachloride	UG/L	0.27 U	NA	NA	NA	NA
Chlorobenzene	UG/L	0.75 U	NA	NA	NA	NA
Chloroethane	UG/L	0.32 U	NA	NA	NA	NA
Chloroform	UG/L	0.34 U	NA	NA	NA	NA
Chloromethane	UG/L	0.35 U	NA	NA	NA	NA
Cyclohexane	UG/L	0.18 U	NA	NA	NA	NA
Dibromochloromethane	UG/L	0.32 U	NA	NA	NA	NA
Dichlorodifluoromethane	UG/L	0.68 U	NA	NA	NA	NA
Ethylbenzene	UG/L	0.74 U	NA	NA	NA	NA
Isopropylbenzene (Cumene)	UG/L	0.79 U	NA	NA	NA	NA
Methyl acetate	UG/L	1.3 U	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	1.3 U	NA	NA	NA	NA
Methyl tert-butyl ether	UG/L	0.16 U	NA	NA	NA	NA
Methylcyclohexane	UG/L	0.16 U	NA	NA	NA	NA
Methylene chloride	UG/L	0.44 U	NA	NA	NA	NA
Styrene	UG/L	0.73 U	NA	NA	NA	NA
Tetrachloroethene	UG/L	0.36 U	NA	NA	NA	NA
Toluene	UG/L	0.51 U	NA	NA	NA	NA
Trichloroethene	UG/L	0.46 U	NA	NA	NA	NA
Trichlorofluoromethane	UG/L	0.88 U	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Made By: AMK 10/9/19
Checked By: GEK 10/9/19

Detection Limits shown are MDL

TABLE 1
VALIDATED SAMPLE ANALYTICAL RESULTS
NYSEG AUBURN GREEN STREET FORMER MGP SITE

Location ID		IDW	MW-02	MW-02	MW-07	MW-08
Sample ID		WC-20190910-1	FD-20190910-1	MW-2	MW-7	MW-8
Matrix		Waste Water	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		09/10/19	09/10/19	09/10/19	09/10/19	09/10/19
Parameter	Units		Field Duplicate (1-1)			
Volatile Organic Compounds						
Vinyl chloride	UG/L	0.90 U	NA	NA	NA	NA
Xylene (total)	UG/L	0.66 U	NA	NA	NA	NA
Semivolatile Organic Compounds						
1,1-Biphenyl	UG/L	0.65 U	NA	NA	NA	NA
1,4-Dioxane	UG/L	NA	0.10 U	0.10 U	0.21	0.10 U
2,2-oxybis(1-Chloropropane)	UG/L	0.52 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	UG/L	0.48 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	UG/L	0.61 U	NA	NA	NA	NA
2,4-Dichlorophenol	UG/L	0.51 U	NA	NA	NA	NA
2,4-Dimethylphenol	UG/L	0.50 U	NA	NA	NA	NA
2,4-Dinitrophenol	UG/L	2.2 U	NA	NA	NA	NA
2,4-Dinitrotoluene	UG/L	0.45 U	NA	NA	NA	NA
2,6-Dinitrotoluene	UG/L	0.40 U	NA	NA	NA	NA
2-Chloronaphthalene	UG/L	0.46 U	NA	NA	NA	NA
2-Chlorophenol	UG/L	0.53 U	NA	NA	NA	NA
2-Methylnaphthalene	UG/L	0.60 U	NA	NA	NA	NA
2-Methylphenol (o-cresol)	UG/L	0.40 U	NA	NA	NA	NA
2-Nitroaniline	UG/L	0.42 U	NA	NA	NA	NA
2-Nitrophenol	UG/L	0.48 U	NA	NA	NA	NA
3,3-Dichlorobenzidine	UG/L	0.40 U	NA	NA	NA	NA
3-Nitroaniline	UG/L	0.48 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	UG/L	2.2 U	NA	NA	NA	NA
4-Bromophenyl-phenylether	UG/L	0.45 U	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Made By: AMK 10/9/19
Checked By: GEK 10/9/19

Detection Limits shown are MDL

TABLE 1
VALIDATED SAMPLE ANALYTICAL RESULTS
NYSEG AUBURN GREEN STREET FORMER MGP SITE

Location ID		IDW	MW-02	MW-02	MW-07	MW-08
Sample ID		WC-20190910-1	FD-20190910-1	MW-2	MW-7	MW-8
Matrix		Waste Water	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		09/10/19	09/10/19	09/10/19	09/10/19	09/10/19
Parameter	Units		Field Duplicate (1-1)			
Semivolatile Organic Compounds						
4-Chloro-3-methylphenol	UG/L	0.45 U	NA	NA	NA	NA
4-Chloroaniline	UG/L	0.59 U	NA	NA	NA	NA
4-Chlorophenyl-phenylether	UG/L	0.35 U	NA	NA	NA	NA
4-Methylphenol (p-cresol)	UG/L	0.36 U	NA	NA	NA	NA
4-Nitroaniline	UG/L	0.25 U	NA	NA	NA	NA
4-Nitrophenol	UG/L	1.5 U	NA	NA	NA	NA
Acenaphthene	UG/L	0.41 U	NA	NA	NA	NA
Acenaphthylene	UG/L	0.38 U	NA	NA	NA	NA
Acetophenone	UG/L	0.54 U	NA	NA	NA	NA
Anthracene	UG/L	0.28 U	NA	NA	NA	NA
Atrazine	UG/L	0.46 U	NA	NA	NA	NA
Benzaldehyde	UG/L	0.27 U	NA	NA	NA	NA
Benzo(a)anthracene	UG/L	0.36 U	NA	NA	NA	NA
Benzo(a)pyrene	UG/L	0.47 U	NA	NA	NA	NA
Benzo(b)fluoranthene	UG/L	0.34 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	UG/L	0.35 U	NA	NA	NA	NA
Benzo(k)fluoranthene	UG/L	0.73 U	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	UG/L	0.35 U	NA	NA	NA	NA
bis(2-Chloroethyl)ether	UG/L	0.40 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	UG/L	2.2 U	NA	NA	NA	NA
Butylbenzylphthalate	UG/L	1.0 U	NA	NA	NA	NA
Caprolactam	UG/L	2.2 U	NA	NA	NA	NA
Carbazole	UG/L	0.30 U	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Made By: AMK 10/9/19
Checked By: GEK 10/9/19

Detection Limits shown are MDL

TABLE 1
VALIDATED SAMPLE ANALYTICAL RESULTS
NYSEG AUBURN GREEN STREET FORMER MGP SITE

Location ID		IDW	MW-02	MW-02	MW-07	MW-08
Sample ID		WC-20190910-1	FD-20190910-1	MW-2	MW-7	MW-8
Matrix		Waste Water	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		09/10/19	09/10/19	09/10/19	09/10/19	09/10/19
Parameter	Units		Field Duplicate (1-1)			
Semivolatile Organic Compounds						
Chrysene	UG/L	0.33 U	NA	NA	NA	NA
Dibenz(a,h)anthracene	UG/L	0.42 U	NA	NA	NA	NA
Dibenzofuran	UG/L	0.51 U	NA	NA	NA	NA
Diethylphthalate	UG/L	0.22 U	NA	NA	NA	NA
Dimethylphthalate	UG/L	0.36 U	NA	NA	NA	NA
Di-n-butylphthalate	UG/L	0.44 J	NA	NA	NA	NA
Di-n-octylphthalate	UG/L	0.47 U	NA	NA	NA	NA
Fluoranthene	UG/L	0.40 U	NA	NA	NA	NA
Fluorene	UG/L	0.36 U	NA	NA	NA	NA
Hexachlorobenzene	UG/L	0.51 U	NA	NA	NA	NA
Hexachlorobutadiene	UG/L	0.68 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	UG/L	0.59 U	NA	NA	NA	NA
Hexachloroethane	UG/L	0.59 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/L	0.47 U	NA	NA	NA	NA
Isophorone	UG/L	0.43 U	NA	NA	NA	NA
Naphthalene	UG/L	0.76 U	NA	NA	NA	NA
Nitrobenzene	UG/L	0.29 U	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	UG/L	0.54 U	NA	NA	NA	NA
N-Nitrosodiphenylamine	UG/L	0.51 U	NA	NA	NA	NA
Pentachlorophenol	UG/L	2.2 U	NA	NA	NA	NA
Phenanthrene	UG/L	0.44 U	NA	NA	NA	NA
Phenol	UG/L	0.39 U	NA	NA	NA	NA
Pyrene	UG/L	0.34 U	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Made By: AMK 10/9/19
Checked By: GEK 10/9/19

Detection Limits shown are MDL

TABLE 1
VALIDATED SAMPLE ANALYTICAL RESULTS
NYSEG AUBURN GREEN STREET FORMER MGP SITE

Location ID		IDW	MW-02	MW-02	MW-07	MW-08
Sample ID		WC-20190910-1	FD-20190910-1	MW-2	MW-7	MW-8
Matrix		Waste Water	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		09/10/19	09/10/19	09/10/19	09/10/19	09/10/19
Parameter	Units		Field Duplicate (1-1)			
Per- and Polyfluoroalkyl Substances						
Perfluorobutanesulfonic acid (PFBS)	NG/L	NA	0.56 J	1.1 J	0.19 U	0.61 J
Perfluorobutanoic acid (PFBA)	NG/L	NA	8.8 U	7.5 U	1.9 U	6.7 U
Perfluorodecane sulfonate (PFDS)	NG/L	NA	0.31 U	0.29 U	0.31 U	0.30 U
Perfluorodecanoic acid (PFDA)	NG/L	NA	0.30 U	0.29 U	0.30 U	0.29 U
Perfluorododecanoic acid (PFDoA)	NG/L	NA	0.53 U	0.51 U	0.53 U	0.51 U
Perfluoroheptanesulfonic acid (PFHpS)	NG/L	NA	0.18 U	0.17 U	0.18 U	0.18 U
Perfluoroheptanoic acid (PFHpA)	NG/L	NA	1.1 J	0.91 J	0.24 U	0.65 J
Perfluorohexanesulfonic acid (PFHxS)	NG/L	NA	1.9 U	1.8 U	0.16 U	1.9 U
Perfluorohexanoic acid (PFHxA)	NG/L	NA	1.4 J	1.1 J	0.56 U	1.6 J
Perfluorononanoic acid (PFNA)	NG/L	NA	0.40 J	0.52 J	0.26 U	0.25 U
Perfluorooctane sulfonamide (PFOSA)	NG/L	NA	0.36 J	0.32 U	0.36 J	0.33 U
Perfluorooctanesulfonic acid (PFOS)	NG/L	NA	1.5 J	1.3 J	0.52 U	0.50 U
Perfluorooctanoic acid (PFOA)	NG/L	NA	2.9	2.7	0.81 U	1.4 J
Perfluoropentanoic acid (PFPeA)	NG/L	NA	0.84 J	0.95 J	0.47 U	1.5 J
Perfluorotetradecanoic acid (PFTeA)	NG/L	NA	0.28 U	0.27 U	0.28 U	0.27 U
Perfluorotridecanoic acid (PFTriA)	NG/L	NA	1.3 U	1.2 U	1.2 U	1.2 U
Perfluoroundecanoic acid (PFUnA)	NG/L	NA	1.1 U	1.0 U	1.1 U	1.0 U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2)	NG/L	NA	1.9 U	1.8 U	1.9 U	1.9 U
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2)	NG/L	NA	1.9 U	1.8 U	1.9 U	1.9 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NG/L	NA	1.8 U	1.7 U	1.8 U	1.8 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NG/L	NA	3.0 U	2.9 U	3.0 U	2.9 U

Flags assigned during chemistry validation are shown.

Made By: AMK 10/9/19
Checked By: GEK 10/9/19

Detection Limits shown are MDL

TABLE 2
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
NYSEG AUBURN GREEN STREET FORMER MGP SITE

Location ID		FIELDQC	FIELDQC
Sample ID		AA-20190910-1	EB-20190910-1
Matrix		Water Quality	Water Quality
Depth Interval (ft)		-	-
Date Sampled		09/10/19	09/10/19
Parameter	Units	Field Blank (1-1)	Equipment Blank (1-1)
Semivolatile Organic Compounds			
1,4-Dioxane	UG/L	NA	0.10 U
Per- and Polyfluoroalkyl Substances			
Perfluorobutanesulfonic acid (PFBS)	NG/L	0.17 U	0.18 U
Perfluorobutanoic acid (PFBA)	NG/L	4.1	0.32 U
Perfluorodecane sulfonate (PFDS)	NG/L	0.28 U	0.29 U
Perfluorodecanoic acid (PFDA)	NG/L	0.27 U	0.28 U
Perfluorododecanoic acid (PFDoA)	NG/L	0.47 U	0.50 U
Perfluoroheptanesulfonic acid (PFHpS)	NG/L	0.16 U	0.17 U
Perfluoroheptanoic acid (PFHpA)	NG/L	0.22 U	0.23 U
Perfluorohexanesulfonic acid (PFHxS)	NG/L	0.22 J	0.29 J
Perfluorohexanoic acid (PFHxA)	NG/L	0.50 U	0.53 U
Perfluorononanoic acid (PFNA)	NG/L	0.23 U	0.25 U
Perfluorooctane sulfonamide (PFOSA)	NG/L	0.30 U	0.32 U
Perfluorooctanesulfonic acid (PFOS)	NG/L	0.47 U	0.49 U
Perfluorooctanoic acid (PFOA)	NG/L	0.73 U	0.78 U
Perfluoropentanoic acid (PFPeA)	NG/L	0.42 U	0.45 U
Perfluorotetradecanoic acid (PFTeA)	NG/L	0.25 U	0.27 U
Perfluorotridecanoic acid (PFTriA)	NG/L	1.1 U	1.2 U
Perfluoroundecanoic acid (PFUnA)	NG/L	0.95 U	1.0 U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2)	NG/L	1.7 U	1.8 U
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2)	NG/L	1.7 U	1.8 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NG/L	1.6 U	1.7 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NG/L	2.7 U	2.8 U

Flags assigned during chemistry validation are shown.

Made By: AMK 10/9/19
Checked By: GEK 10/9/19

Detection Limits shown are MDL

ATTACHMENT A

VALIDATED FORM 1's

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-159012-1

SDG No.:

Client Sample ID: WC-20190910-1 Lab Sample ID: 480-159012-7

Matrix: Water Lab File ID: N6159.D

Analysis Method: 8260C Date Collected: 09/10/2019 16:00

Sample wt/vol: 5(mL) Date Analyzed: 09/21/2019 11:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (20) ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 493319 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
78-93-3	2-Butanone (MEK)	ND		10	1.3
591-78-6	2-Hexanone	ND		5.0	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	55		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
98-82-8	Isopropylbenzene	ND		1.0	0.79

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-159012-1

SDG No.:

Client Sample ID: WC-20190910-1 Lab Sample ID: 480-159012-7

Matrix: Water Lab File ID: N6159.D

Analysis Method: 8260C Date Collected: 09/10/2019 16:00

Sample wt/vol: 5(mL) Date Analyzed: 09/21/2019 11:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (20) ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 493319 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		77-120
460-00-4	4-Bromofluorobenzene (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		75-123

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-159012-1

SDG No.:

Client Sample ID: WC-20190910-1 | Lab Sample ID: 480-159012-7

Matrix: Water | Lab File ID: Y026941.D

Analysis Method: 8270D | Date Collected: 09/10/2019 16:00

Extract. Method: 3510C | Date Extracted: 09/13/2019 15:07

Sample wt/vol: 250(mL) | Date Analyzed: 09/17/2019 01:38

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 492263 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		5.0	0.65
108-60-1	bis (2-chloroisopropyl) ether	ND		5.0	0.52
95-95-4	2,4,5-Trichlorophenol	ND		5.0	0.48
88-06-2	2,4,6-Trichlorophenol	ND		5.0	0.61
120-83-2	2,4-Dichlorophenol	ND		5.0	0.51
105-67-9	2,4-Dimethylphenol	ND		5.0	0.50
51-28-5	2,4-Dinitrophenol	ND		10	2.2
121-14-2	2,4-Dinitrotoluene	ND		5.0	0.45
606-20-2	2,6-Dinitrotoluene	ND		5.0	0.40
91-58-7	2-Chloronaphthalene	ND		5.0	0.46
95-57-8	2-Chlorophenol	ND		5.0	0.53
95-48-7	2-Methylphenol	ND		5.0	0.40
91-57-6	2-Methylnaphthalene	ND		5.0	0.60
88-74-4	2-Nitroaniline	ND		10	0.42
88-75-5	2-Nitrophenol	ND		5.0	0.48
91-94-1	3,3'-Dichlorobenzidine	ND		5.0	0.40
99-09-2	3-Nitroaniline	ND		10	0.48
534-52-1	4,6-Dinitro-2-methylphenol	ND		10	2.2
101-55-3	4-Bromophenyl phenyl ether	ND		5.0	0.45
59-50-7	4-Chloro-3-methylphenol	ND		5.0	0.45
106-47-8	4-Chloroaniline	ND		5.0	0.59
7005-72-3	4-Chlorophenyl phenyl ether	ND		5.0	0.35
106-44-5	4-Methylphenol	ND		10	0.36
100-01-6	4-Nitroaniline	ND		10	0.25
100-02-7	4-Nitrophenol	ND		10	1.5
83-32-9	Acenaphthene	ND		5.0	0.41
208-96-8	Acenaphthylene	ND		5.0	0.38
98-86-2	Acetophenone	ND		5.0	0.54
120-12-7	Anthracene	ND		5.0	0.28
1912-24-9	Atrazine	ND		5.0	0.46
100-52-7	Benzaldehyde	ND		5.0	0.27
56-55-3	Benzo[a]anthracene	ND		5.0	0.36
50-32-8	Benzo[a]pyrene	ND		5.0	0.47
205-99-2	Benzo[b]fluoranthene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-159012-1

SDG No.:

Client Sample ID: WC-20190910-1 Lab Sample ID: 480-159012-7

Matrix: Water Lab File ID: Y026941.D

Analysis Method: 8270D Date Collected: 09/10/2019 16:00

Extract. Method: 3510C Date Extracted: 09/13/2019 15:07

Sample wt/vol: 250(mL) Date Analyzed: 09/17/2019 01:38

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 492263 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		5.0	0.35
207-08-9	Benzo[k]fluoranthene	ND		5.0	0.73
111-91-1	Bis(2-chloroethoxy)methane	ND		5.0	0.35
111-44-4	Bis(2-chloroethyl)ether	ND		5.0	0.40
117-81-7	Bis(2-ethylhexyl) phthalate	ND		5.0	2.2
85-68-7	Butyl benzyl phthalate	ND		5.0	1.0
105-60-2	Caprolactam	ND		5.0	2.2
86-74-8	Carbazole	ND		5.0	0.30
218-01-9	Chrysene	ND		5.0	0.33
53-70-3	Dibenz(a,h)anthracene	ND		5.0	0.42
84-74-2	Di-n-butyl phthalate	0.44	J	5.0	0.31
117-84-0	Di-n-octyl phthalate	ND		5.0	0.47
132-64-9	Dibenzofuran	ND		10	0.51
84-66-2	Diethyl phthalate	ND		5.0	0.22
131-11-3	Dimethyl phthalate	ND		5.0	0.36
206-44-0	Fluoranthene	ND		5.0	0.40
86-73-7	Fluorene	ND		5.0	0.36
118-74-1	Hexachlorobenzene	ND		5.0	0.51
87-68-3	Hexachlorobutadiene	ND		5.0	0.68
77-47-4	Hexachlorocyclopentadiene	ND		5.0	0.59
67-72-1	Hexachloroethane	ND		5.0	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	ND		5.0	0.47
78-59-1	Isophorone	ND		5.0	0.43
621-64-7	N-Nitrosodi-n-propylamine	ND		5.0	0.54
86-30-6	N-Nitrosodiphenylamine	ND		5.0	0.51
91-20-3	Naphthalene	ND		5.0	0.76
98-95-3	Nitrobenzene	ND		5.0	0.29
87-86-5	Pentachlorophenol	ND		10	2.2
85-01-8	Phenanthrene	ND		5.0	0.44
108-95-2	Phenol	ND		5.0	0.39
129-00-0	Pyrene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-159012-1

SDG No.:

Client Sample ID: MW-2 Lab Sample ID: 480-159012-3

Matrix: Water Lab File ID: U33152651.D

Analysis Method: 8270D SIM ID Date Collected: 09/10/2019 15:15

Extract. Method: 3510C Date Extracted: 09/16/2019 15:49

Sample wt/vol: 1000(mL) Date Analyzed: 09/19/2019 06:25

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 492339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	25		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-159012-1

SDG No.:

Client Sample ID: MW-7 Lab Sample ID: 480-159012-2

Matrix: Water Lab File ID: U33152648.D

Analysis Method: 8270D SIM ID Date Collected: 09/10/2019 13:45

Extract. Method: 3510C Date Extracted: 09/16/2019 15:49

Sample wt/vol: 1000(mL) Date Analyzed: 09/19/2019 05:15

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 492339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.21		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	29		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-159012-1

SDG No.:

Client Sample ID: MW-8 Lab Sample ID: 480-159012-1

Matrix: Water Lab File ID: U33152650.D

Analysis Method: 8270D SIM ID Date Collected: 09/10/2019 12:25

Extract. Method: 3510C Date Extracted: 09/16/2019 15:49

Sample wt/vol: 1000(mL) Date Analyzed: 09/19/2019 06:02

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 492339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	27		15-110

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

MW-2

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-159012-1

SDG No.:

Client Sample ID: FD-20190910-1 Lab Sample ID: 480-159012-5

Matrix: Water Lab File ID: U33152652.D

Analysis Method: 8270D SIM ID Date Collected: 09/10/2019 14:30

Extract. Method: 3510C Date Extracted: 09/16/2019 15:49

Sample wt/vol: 1000(mL) Date Analyzed: 09/19/2019 06:48

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 492339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	25		15-110

10/8/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-159012-1

SDG No.:

Client Sample ID: EB-20190910-1 Lab Sample ID: 480-159012-6

Matrix: Water Lab File ID: U33152653.D

Analysis Method: 8270D SIM ID Date Collected: 09/10/2019 15:30

Extract. Method: 3510C Date Extracted: 09/16/2019 15:49

Sample wt/vol: 1000(mL) Date Analyzed: 09/19/2019 07:12

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 492339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	36		15-110

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-159012-1

SDG No.:

Client Sample ID: MW-2 Lab Sample ID: 480-159012-3

Matrix: Water Lab File ID: 2019.09.19LLB_041.d

Analysis Method: 537 (modified) Date Collected: 09/10/2019 15:15

Extraction Method: 3535 Date Extracted: 09/17/2019 19:44

Sample wt/vol: 271.8(mL) Date Analyzed: 09/20/2019 05:22

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 324853 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	7.5	U	7.5 ~~1.8~~	7.5 ~~0.32~~
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.95	J	1.8	0.45
307-24-4	Perfluorohexanoic acid (PFHxA)	1.1	J	1.8	0.53
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.91	J	1.8	0.23
335-67-1	Perfluorooctanoic acid (PFOA)	2.7		1.8	0.78
375-95-1	Perfluorononanoic acid (PFNA)	0.52	J	1.8	0.25
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	0.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.2
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.27
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.8	0.18
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND ~~0.41~~	~~J~~ B	1.8	1.8 ~~0.16~~
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.17
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.3	J	1.8	0.50
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.29
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	0.32
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.9
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.7
27619-97-2	6:2 FTS	ND		18	1.8
39108-34-4	8:2 FTS	ND		18	1.8

10/18/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

MW-2

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-159012-1

SDG No.:

Client Sample ID: FD-20190910-1 Lab Sample ID: 480-159012-5

Matrix: Water Lab File ID: 2019.09.19LLB_043.d

Analysis Method: 537 (modified) Date Collected: 09/10/2019 14:30

Extraction Method: 3535 Date Extracted: 09/17/2019 19:44

Sample wt/vol: 257.3(mL) Date Analyzed: 09/20/2019 05:41

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 324853 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	8.8	U	~~1.9~~ 8.8	~~0.34~~ 8.8
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.84	J	1.9	0.48
307-24-4	Perfluorohexanoic acid (PFHxA)	1.4	J	1.9	0.56
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.1	J	1.9	0.24
335-67-1	Perfluorooctanoic acid (PFOA)	2.9		1.9	0.83
375-95-1	Perfluorononanoic acid (PFNA)	0.40	J	1.9	0.26
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	0.30
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.3
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.28
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.56	J	1.9	0.19
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	~~0.34~~ ND	~~J~~	1.9	~~0.17~~ 1.9
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.5	J	1.9	0.52
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.36	J	1.9	0.34
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		19	3.0
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		19	1.8
27619-97-2	6:2 FTS	ND		19	1.9
39108-34-4	8:2 FTS	ND		19	1.9

DLK 10/8/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-159012-1

SDG No.:

Client Sample ID: MW-7 Lab Sample ID: 480-159012-2

Matrix: Water Lab File ID: 2019.09.19LLB_038.d

Analysis Method: 537 (modified) Date Collected: 09/10/2019 13:45

Extraction Method: 3535 Date Extracted: 09/17/2019 19:44

Sample wt/vol: 261.1(mL) Date Analyzed: 09/20/2019 04:53

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 324853 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	~~1.3~~ ND	~~J~~ U	1.9	~~0.34~~ 1.9
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.9	0.47
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.9	0.56
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.24
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.9	0.81
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	0.26
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	0.30
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.28
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.16
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.52
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.36	J	1.9	0.34
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		19	3.0
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		19	1.8
27619-97-2	6:2 FTS	ND		19	1.9
39108-34-4	8:2 FTS	ND		19	1.9

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FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-159012-1

SDG No.:

Client Sample ID: MW-8 Lab Sample ID: 480-159012-1

Matrix: Water Lab File ID: 2019.09.19LLB_037.d

Analysis Method: 537 (modified) Date Collected: 09/10/2019 12:25

Extraction Method: 3535 Date Extracted: 09/17/2019 19:44

Sample wt/vol: 268.7(mL) Date Analyzed: 09/20/2019 04:43

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 324853 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	6.7	U	6.7 ~~1.9~~	6.7 ~~0.33~~
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.5	J	1.9	0.46
307-24-4	Perfluorohexanoic acid (PFHxA)	1.6	J ~~I~~	1.9	0.54
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.65	J	1.9	0.23
335-67-1	Perfluorooctanoic acid (PFOA)	1.4	J	1.9	0.79
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	0.25
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	0.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.27
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.61	J	1.9	0.19
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND ~~0.45~~	~~J B~~	1.9	1.9 ~~0.16~~
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.50
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.33
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		19	2.9
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		19	1.8
27619-97-2	6:2 FTS	ND		19	1.9
39108-34-4	8:2 FTS	ND		19	1.9

10/24/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-159012-1

SDG No.:

Client Sample ID: AA-20190910-1 Lab Sample ID: 480-159012-4

Matrix: Water Lab File ID: 2019.09.19LLB_042.d

Analysis Method: 537 (modified) Date Collected: 09/10/2019 13:20

Extraction Method: 3535 Date Extracted: 09/17/2019 19:44

Sample wt/vol: 289.8(mL) Date Analyzed: 09/20/2019 05:31

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 324853 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.1		1.7	0.30
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.7	0.42
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.7	0.50
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.22
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.7	0.73
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	0.23
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	0.27
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.95
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	0.47
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.1
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.25
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.17
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.22	J B	1.7	0.15
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.16
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.47
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.28
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.7	0.30
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17	2.7
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17	1.6
27619-97-2	6:2 FTS	ND		17	1.7
39108-34-4	8:2 FTS	ND		17	1.7

10/18/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-159012-1

SDG No.:

Client Sample ID: EB-20190910-1 Lab Sample ID: 480-159012-6

Matrix: Water Lab File ID: 2019.09.27LLB_007.d

Analysis Method: 537 (modified) Date Collected: 09/10/2019 15:30

Extraction Method: 3535 Date Extracted: 09/17/2019 19:44

Sample wt/vol: 273.2(mL) Date Analyzed: 09/28/2019 04:04

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326849 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		1.8	0.32
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.8	0.45
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.8	0.53
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.23
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	0.78
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	0.25
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	0.28
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	0.50
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.2
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.27
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.18
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.29	J B	1.8	0.16
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.17
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.49
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.29
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	0.32
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.8
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.7
27619-97-2	6:2 FTS	ND		18	1.8
39108-34-4	8:2 FTS	ND		18	1.8

10/8/19

ATTACHMENT B

SUPPORT DOCUMENTATION

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone 716-691-2600 Fax 716-691-7991

Chain of Custody Record

eurofins

Client Information	Sampler: Sean P. Connelly	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-135242-30422.2
Client Contact: Mr. James Kaczor	Phone: (716) 856-5636	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 1
Company: AECOM				Job #:
Address: 257 West Genesee Street Suite 400	Due Date Requested:	Analysis Requested		Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3
City: Buffalo	TAT Requested (days): STANDARD			
State, Zip: NY, 14202-2657				
Phone:	PO #: Purchase Order Requested			
Email: james.kaczor@aecom.com	WO #:			
Project Name: NYSEG Auburn Green Street	Project #: 48020888			
Site:	SSOW#:			

480-159012 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	8270D_SIM_MS_ID - 1,4-Dioxane SIM	8270D - TCL SVOAs	8260C - TCL VOAs	Total Number of	Special Instructions/Note:
			Preservation Code:		X	X	N	N	N	A	X	
MW-8	9/10/19	1225	G	Water	N	N	2	2				
MW-7	9/10/19	1345	G	Water	N	Y	2	2				MS/MSD
MW-2	9/10/19	1515	G	Water	N	N	2	2				
AA-20190910-1	9/10/19	1320	G	Water	N	N	2	X				Ambient Air (No Duplicate)
FD-20190910-1	9/10/19	1430	G	Water	N	N	2	2				Field Duplicate of MW-2
EB-20190910-1	9/10/19	1530	G	Water	N	N	2	2				Equipment Blank
WC-20190910-1	9/10/19	1600	C	Water	N	N			2	3		TDU Sample

QUAL 10/8/19

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	9/11/19 1005	Aecom	[signature]	9/11/19 1005	TAL
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No:	Cooler Temperature(s) °C and Other Remarks: 4.0, 3.2, 2.8 #1 ICE

Ver: 01/16/2019

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10/04/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone 716-691-2600 Fax 716-691-7991

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler	Lab PM: Schove, John R	Carrier Tracking No(s)	COC No: 480-51555.1
Client Contact: Shipping/Receiving	Phone	E-Mail: john.schove@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York		Job #: 480-159012-1
Address: 880 Riverside Parkway,	Due Date Requested: 9/25/2019			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #			
Email	WO #			
Project Name: NYSEG Auburn Green Street	Project #: 48020888			
Site	SSOW#			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-8 (480-159012-1)	9/10/19	12:25 Eastern		Water			X	2	
MW-7 (480-159012-2)	9/10/19	13:45 Eastern		Water			X	2	
MW-7 (480-159012-2MS)	9/10/19	13:45 Eastern	MS	Water			X	2	
MW-7 (480-159012-2MSD)	9/10/19	13:45 Eastern	MSD	Water			X	2	
MW-2 (480-159012-3)	9/10/19	15:15 Eastern		Water			X	2	
AA-20190910-1 (480-159012-4)	9/10/19	13:20 Eastern		Water			X	2	
FD-20190910-1 (480-159012-5)	9/10/19	14:30 Eastern		Water			X	2	
EB-20190910-1 (480-159012-6)	9/10/19	15:30 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	9/12/19 1700	TA	Juan Guzman	9/12/19 9:25	ETA-Sac
2						
3						

Custody Seals Intact	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks
✓ Yes ∧ No	993328	2-7°C

Ver: 01/16/2019

Job Narrative
480-159012-1

Receipt
The samples were received on 9/11/2019 10:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.8° C, 3.2° C and 4.0° C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D SIM ID: The 1,4-Dioxane result reported for samples MW-7 (480-159012-2[MS]) and MW-7 (480-159012-2[MSD]) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method(s) 537 (modified): Due to a shortage in the marketplace for 13C3-PFBS, the target analyte PFBS and/or Perfluoropentanesulfonic acid (PFPeS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS and Perfluoropentanesulfonic acid (PFPeS) was quantitated versus 18O2-PFHxS instead: (ICV 320-323869/11).

Method(s) 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification of the analyte(s) has/have some degree of uncertainty. However, analyst judgement was used to positively identify the analyte(s).
MW-8 (480-159012-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3535: The following sample: MW-8 (480-159012-1), MW-7 (480-159012-2), MW-7 (480-159012-2[MS]) and MW-7 (480-159012-2[MSD]) prior extraction, were observed to be a yellow color and particulates.

Method(s) 3535: The following sample: MW-8 (480-159012-1), MW-7 (480-159012-2), MW-7 (480-159012-2[MS]) and MW-7 (480-159012-2[MSD]) after extraction, were observed to be a yellow color.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-159012-1

SDG No.:

Lab File ID: 2019.09.19LLB_035.d Lab Sample ID: MB 320-324248/1-A

Matrix: Water Date Extracted: 09/17/2019 19:44

Instrument ID: A9 Date Analyzed: 09/20/2019 04:24

Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-324248/2-A	2019.09.19LLB_036.d	09/20/2019 04:34
MW-8	480-159012-1	2019.09.19LLB_037.d	09/20/2019 04:43
MW-7	480-159012-2	2019.09.19LLB_038.d	09/20/2019 04:53
MW-7 MS	480-159012-2 MS	2019.09.19LLB_039.d	09/20/2019 05:03
MW-7 MSD	480-159012-2 MSD	2019.09.19LLB_040.d	09/20/2019 05:12
MW-2	480-159012-3	2019.09.19LLB_041.d	09/20/2019 05:22
AA-20190910-1	480-159012-4	2019.09.19LLB_042.d	09/20/2019 05:31
FD-20190910-1	480-159012-5	2019.09.19LLB_043.d	09/20/2019 05:41
EB-20190910-1	480-159012-6	2019.09.27LLB_007.d	09/28/2019 04:04

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-159012-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-324248/1-A

Matrix: Water Lab File ID: 2019.09.19LLB_035.d

Analysis Method: 537 (modified) Date Collected:

Extraction Method: 3535 Date Extracted: 09/17/2019 19:44

Sample wt/vol: 250(mL) Date Analyzed: 09/20/2019 04:24

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 324853 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		2.0	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	0.85
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	0.27
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	0.31
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.280	J	2.0	0.17
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.35
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9
27619-97-2	6:2 FTS	ND		20	2.0
39108-34-4	8:2 FTS	ND		20	2.0