AECOM
4051 Ogletown Road
Newark
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USA
aecom.com

Project name:
Montague Site

Project ref:
Chemours: 507756
AECOM: 60561815

To:
Ronda Blayer, MDEQ
Dale Bridgford, MDEQ

CC:
Sathya Yalvigi, Chemours
Craig A. Bartlett, Chemours

From:
George E. Gregory III, AECOM

Date:
October 2, 2018

Memo

Subject: Per- and Polyfluoroalkyl Substances (PFAS) Sampling Results
Former DuPont Montague Site, Montague, Michigan

Background

In an April 5, 2018 email to AECOM and The Chemours Company (Chemours), the Michigan Department of Environmental Quality (MDEQ) noted that per- and polyfluoroalkyl substances (PFAS) have become an emerging constituent of concern. The email further noted that Part 201 of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451 had been amended effective January 10, 2018 to provide drinking water criteria for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). This drinking water criteria (residential and nonresidential) is 70 ng/L for combined PFOA and PFOS. MDEQ requested that Chemours submit a plan to sample for PFAS in groundwater and water from the NPDES discharge to Lake Michigan at the above referenced site.

Based on discussions held May 16, 2018 at the site, a scope of work was submitted to MDEQ on August 8, 2018. The scope described the proposed sampling locations, and collection and analytical methods. Dale Bridgford of the MDEQ provided email approval the scope on August 15, 2018 and emphasized MDEQs intent to collect some split samples with AECOM.

Sampling Activities – August 2018

On August 22 and 23, 2018, Bracken Netcott and Heather Thiel of AECOM collected samples of water from the locations listed in Table 1. The AECOM team was joined by Dale Bridgford and Ashley McElmurry of MDEQ who were present to observe the sampling and collect split samples of the NPDES outfall and MW-213-062.

Initially, the plan was to perform three-well volume purges on all monitoring wells. However, the flow rate of the pump was found to be limited to 250 milliliters per minute (mL/min). This pump was an air-driven bladder pump with materials considered appropriate for PFAS sampling, so it was considered best to not change the pump, but to instead purge the wells following a low-flow purge method. This change was confirmed with the team's project manager, George Gregory, and PFAS technical lead, Katherine Davis PhD, of AECOM. An additional field change was the order in which samples were collected. The scope of work had planned that sampling would begin in areas suspected to be least likely to have PFAS (the site water supply and background well BP-008-060) and the last samples would be the outfall and MW-213-062. Instead, to accommodate MDEQ's request for split samples, those locations were sampled first.

Table 2 lists stabilized field parameter data collected from wells during the purge of the monitoring wells and sample ports. Purge parameter data were not collected for the NPDES outfall sample. Purge notes and other

field notes are included as Appendix A. In addition to the samples listed in Table 1, the AECOM team also collected equipment and field blanks (one of each per day) to assess the potential for cross contamination.

The field team placed samples on ice and shipped them under chain of custody to Eurofins Lancaster Laboratories in Lancaster, Pennsylvania. The laboratory extracted the samples and analyzed within hold times for PFAS constituents using EPA Method 537 Modified. Appendix B contains the two laboratory reports with the results from the sampling event.

Results of Sampling

Results from the August sampling event are shown in Table 3. Three PFAS constituents were detected in samples from seven of the locations. The remaining 21 PFAS reported were not detected at the method detection limits (MDLs) indicated in Table 3. Results for all detected constituent results are posted on Figure 1.

- The highest detection of any single PFAS constituent was of perfluorobutanoic acid (PFBA), detected at an estimated result (J-flagged) of 13 ng/L in the sample collected from MW-224-060 (south of the northeast landfill). PFBA was also detected at lower concentrations in the samples collected from MW-250-054 (near Pierson Creek Landfill), interceptor well IW-09-140, and the outfall sample.
- PFOA was detected in five of the monitoring wells and in IW-09-140. Concentrations ranged from 1.1 ng/L to 5.4 ng/L. There was relatively good agreement between the primary sample result (4.9 ng/L) and the duplicate result (5.4 ng/L) at MW-213-062.
- Perfluorohexanoic acid (PFHxA) was detected in one sample, the outfall sample, at a result of 4.2 ng/L.

Samples from three locations did not contain detectable concentrations of the PFAS reported. These locations are: BP-008-060 (background well for the Bury Pit Landfill), NL-005-055 (well downgradient of the North Landfill), and the site water supply (this water supply comes from supply wells west of the former manufacturing area).

Equipment and field blank samples also had no PFAS constituents above the MDLs indicated in Table 3. These non-detect results in the blanks suggest that sufficient precautions were taken during sampling that the detections identified in the primary field samples are valid and are not likely due to cross-contamination.

Comparison to Current MDEQ Drinking Water Criteria

MDEQ has established drinking water criteria for PFOA plus perfluorooctanesulfonic acid (PFOS). This drinking water criteria (residential and nonresidential) is 70 ng/L for combined PFOA and PFOS. The remaining 22 PFAS constituents listed in Table 3 do not have criteria established. Table 3 shows the results from PFOA and PFOS on the third page along with a column that adds the results of PFOA and PFOS together. Because results are reported to the MDL, the full value of the MDL is added where a constituent was nondetect. As shown in the column labeled “PFOA+PFOS”, none of the results exceed the MDEQ drinking water standard for combined PFOA and PFOS.

Summary

The results from this sampling event indicate that three PFAS constituents (PFBA, PFOA and PFHxA) were detected in groundwater near site units, and the concentrations detected are well below applicable drinking water criteria. Quality control samples suggest that adequate measures were taken by the field team to prevent false positive detections. The remaining 21 PFAS reported were not detected at the MDLs. Based on the very low concentrations detected, no additional sampling is recommended.

If you have any questions or comments about the technical nature of this scope, please contact me at 832-422-4423. For other questions related to the project, please contact Sathya Yalvigi at 302-773-4291.

Sincerely,

George E. Gregory III
Senior Geologist/Project Manager
AECOM Corporation

Tables

Table 1
Compliance Monitoring Program
2018 1H Groundwater Monitoring Results
Chemours Montague Works
Montague, Michigan

Sample ID	X Coordinate	Y Coordinate	General Location
MW-250-054	12576795.62	696691.87	Pierson Creek Landfill
MW-224-060	12583714.56	698483.95	Northeast Landfill
MW-204-040	12583834.08	697020.71	Downgradient of former Surface Impoundment
NL-005-055	12582016.05	699095.44	North Landfill
BP-001-070	12579851.81	699131.37	Bury Pit Landfil
BP-008-060	12580001.56	699674.11	Upgradient well
Outfall 001	NA	NA	NPDES Outfall Piping
IW-09-140	12583707.30	693470.70	Downgradient IW for Lime Pile
MW-213-062	12582347.71	697125.97	Downgradient/downwind of the former Freon Manufacturing Area
Site Water Supply	NA	NA	Faucet at boiler house

Note: coordinates are expressed in Michigan South State Plane system.

Table 2
Field Purge Parameters
August 2018 PFAS Sampling
Chemours Montague Works
Montague, Michigan

Sample Location	Date Time	pH	Temperature (C)	Spec. Cond. umhos/cm	DO (mg/l)	Turbidity (ntu)	ORP (mv)	Depth to Water (ft)	Flow ml/min
2018 August PFAS Sampling									
MW-213-062	13:30 08/22/2018	7.33	13.22	362.7	9.95	1.15	141.3	38.47	250
MW-250-054	15:50 08/22/2018	6.67	11.58	1170.3	0.87	8.72	-2.6	45.85	250
MW-204-040	17:10 08/22/2018	7.39	12.23	368.74	9.61	15.93	53	26.11	250
MW-224-060	09:55 08/23/2018	7.05	11.75	431.32	0.36	2.52	-104.1	26.65	250
NL-005-055	11:15 08/23/2018	7.31	10.73	344.8	11.35	1.77	33.5	30.56	250
BP-008-060	12:30 08/23/2018	7.40	10.80	1.19	10.32	0.97	49.5	26.24	250
BP-001-070	15:15 08/23/2018	7.62	11.76	379.63	8.57	37.28	-31	50.26	250
SiteW	14:30 08/23/2018	6.46	24.53	206.8	0.84	4.01	80.6	NA	250
IW-09-140	15:00 08/23/2018	8.80	15.48	368.13	3.39	5.75	-146.4	NA	250

NR - No Response (below instrument detection limits)

Table 3
Analytical Results
August 2018 PFAS Sampling
Chemours Montague Works
Montague, Michigan

Sample ID	Location ID	Analyte		1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	6:2 Fluorotelomer sulfonate	N-ethyl perfluorooctane sulfonamidoacetic acid	N-methyl perfluorooctane sulfonamidoacetic acid	Perfluorobutane Sulfonic Acid	Perfluorobutanoic Acid	Perfluorodecane Sulfonic Acid
		Screening Criteria		*	*	*	*	*	*	*	*
		Date	Purpose	ng/l	ng/l	ng/l	ng/L	ng/L	ng/L	ng/L	ng/L
August 2018 PFAS Sampling											
PFAS0818-Outfall	"001"	8/22/18	Regular Sample	ND 9.9	ND 5.0	ND 3.3	ND 5.0	ND 5.0	ND 1.7	**12**	ND 3.3
EB-082218-1	EQBLK	8/22/18	Equipment Blank	ND 5.4	ND 2.7	ND 1.8	ND 2.7	ND 2.7	ND 0.91	ND 5.4	ND 1.8
EB-082218-2	EQBLK	8/23/18	Equipment Blank	ND 5.6	ND 2.8	ND 1.9	ND 2.8	ND 2.8	ND 0.93	ND 5.6	ND 1.9
FB-082218-1	FBLK	8/22/18	Field Blank	ND 5.4	ND 2.7	ND 1.8	ND 2.7	ND 2.7	ND 0.91	ND 5.4	ND 1.8
FB-082218-2	FBLK	8/23/18	Field Blank	ND 5.4	ND 2.7	ND 1.8	ND 2.7	ND 2.7	ND 0.9	ND 5.4	ND 1.8
PFAS0818-IW-09-140	IW-09-140	8/23/18	Regular Sample	ND 5.4	ND 2.7	ND 1.8	ND 2.7	ND 2.7	ND 0.9	**7.6**	ND 1.8
PFAS0818-MW-204-040	MW-204-040	8/22/18	Regular Sample	ND 5.3	ND 2.6	ND 1.8	ND 2.6	ND 2.6	ND 0.88	ND 5.3	ND 1.8
PFAS0818-MW-213-062	MW-213-062	8/22/18	Regular Sample	ND 5.5	ND 2.7	ND 1.8	ND 2.7	ND 2.7	ND 0.91	ND 5.5	ND 1.8
PFAS0818-MW-213-062-D	MW-213-062	8/22/18	Field Duplicate	ND 5.6	ND 2.8	ND 1.9	ND 2.8	ND 2.8	ND 0.93	ND 5.6	ND 1.9
PFAS0818-MW-224-060	MW-224-060	8/23/18	Regular Sample	ND 7.5	ND 3.7	ND 2.5	ND 3.7	ND 3.7	ND 1.2	**13J**	ND 2.5
PFAS0818-MW-250-054	MW-250-054	8/22/18	Regular Sample	ND 6.0	ND 3.0	ND 2.0	ND 3.0	ND 3.0	ND 1.0	**6**	ND 2.0
PFAS0818-BP-001-070	MW-BP-001-070	8/23/18	Regular Sample	ND 5.6	ND 2.8	ND 1.9	ND 2.8	ND 2.8	ND 0.93	ND 5.6	ND 1.9
PFAS0818-BP-008-060	MW-BP-008-060	8/23/18	Regular Sample	ND 5.3	ND 2.6	ND 1.8	ND 2.6	ND 2.6	ND 0.88	ND 5.3	ND 1.8
PFAS0818-NL-005-055	NL-005-055	8/23/18	Regular Sample	ND 5.4	ND 2.7	ND 1.8	ND 2.7	ND 2.7	ND 0.89	ND 5.4	ND 1.8
PFAS0818-SiteW	SiteW	8/23/18	Regular Sample	ND 5.6	ND 2.8	ND 1.9	ND 2.8	ND 2.8	ND 0.93	ND 5.6	ND 1.9

[1]: PFOS + PFOA, if one constituent is ND then assume the second constituent to be present at the detection limit.

*: MDEQ clean up standard for total PFAS is 70 parts per trillion (equivalent to 70 nanograms per liter).
ND = Non detect at stated reporting limit
J = Estimated result

Table 3
Analytical Results
August 2018 PFAS Sampling
Chemours Montague Works
Montague, Michigan

Sample ID	Location ID	Analyte		Perfluorodecanoic Acid	Perfluorododecanoic Acid	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic Acid	Perfluorohexane Sulfonic Acid	Perfluorohexanoic Acid	Perfluorononanesulfonate	Perfluorononanoic Acid	Perfluorooctane Sulfonamide
		Screening Criteria		*	*	*	*	*	*	*	*	*
		Date	Purpose	ng/L	ng/L	ng/l	ng/L	ng/L	ng/L	ng/l	ng/L	ng/L
	August 2018 PFAS Sampling											
PFAS0818-Outfall	"001"	8/22/18	Regular Sample	ND 3.3	ND 3.3	ND 3.3	ND 1.7	ND 3.3	**4.2**	ND 3.3	ND 3.3	ND 5.0
EB-082218-1	EQBLK	8/22/18	Equipment Blank	ND 1.8	ND 1.8	ND 1.8	ND 0.91	ND 1.8	ND 1.8	ND 1.8	ND 1.8	ND 2.7
EB-082218-2	EQBLK	8/23/18	Equipment Blank	ND 1.9	ND 1.9	ND 1.9	ND 0.93	ND 1.9	ND 1.9	ND 1.9	ND 1.9	ND 2.8
FB-082218-1	FBLK	8/22/18	Field Blank	ND 1.8	ND 1.8	ND 1.8	ND 0.91	ND 1.8	ND 1.8	ND 1.8	ND 1.8	ND 2.7
FB-082218-2	FBLK	8/23/18	Field Blank	ND 1.8	ND 1.8	ND 1.8	ND 0.9	ND 1.8	ND 1.8	ND 1.8	ND 1.8	ND 2.7
PFAS0818-IW-09-140	IW-09-140	8/23/18	Regular Sample	ND 1.8	ND 1.8	ND 1.8	ND 0.9	ND 1.8	ND 1.8	ND 1.8	ND 1.8	ND 2.7
PFAS0818-MW-204-040	MW-204-040	8/22/18	Regular Sample	ND 1.8	ND 1.8	ND 1.8	ND 0.88	ND 1.8	ND 1.8	ND 1.8	ND 1.8	ND 2.6
PFAS0818-MW-213-062	MW-213-062	8/22/18	Regular Sample	ND 1.8	ND 1.8	ND 1.8	ND 0.91	ND 1.8	ND 1.8	ND 1.8	ND 1.8	ND 2.7
PFAS0818-MW-213-062-D	MW-213-062	8/22/18	Field Duplicate	ND 1.9	ND 1.9	ND 1.9	ND 0.93	ND 1.9	ND 1.9	ND 1.9	ND 1.9	ND 2.8
PFAS0818-MW-224-060	MW-224-060	8/23/18	Regular Sample	ND 2.5	ND 2.5	ND 2.5	ND 1.2	ND 2.5	ND 2.5	ND 2.5	ND 2.5	ND 3.7
PFAS0818-MW-250-054	MW-250-054	8/22/18	Regular Sample	ND 2.0	ND 2.0	ND 2.0	ND 1.0	ND 2.0	ND 2.0	ND 2.0	ND 2.0	ND 3.0
PFAS0818-BP-001-070	MW-BP-001-070	8/23/18	Regular Sample	ND 1.9	ND 1.9	ND 1.9	ND 0.93	ND 1.9	ND 1.9	ND 1.9	ND 1.9	ND 2.8
PFAS0818-BP-008-060	MW-BP-008-060	8/23/18	Regular Sample	ND 1.8	ND 1.8	ND 1.8	ND 0.88	ND 1.8	ND 1.8	ND 1.8	ND 1.8	ND 2.6
PFAS0818-NL-005-055	NL-005-055	8/23/18	Regular Sample	ND 1.8	ND 1.8	ND 1.8	ND 0.89	ND 1.8	ND 1.8	ND 1.8	ND 1.8	ND 2.7
PFAS0818-SiteW	SiteW	8/23/18	Regular Sample	ND 1.9	ND 1.9	ND 1.9	ND 0.93	ND 1.9	ND 1.9	ND 1.9	ND 1.9	ND 2.8

[1]: PFOS + PFOA, if one constituent is ND then assume the second constituent to be present at the detection limit.

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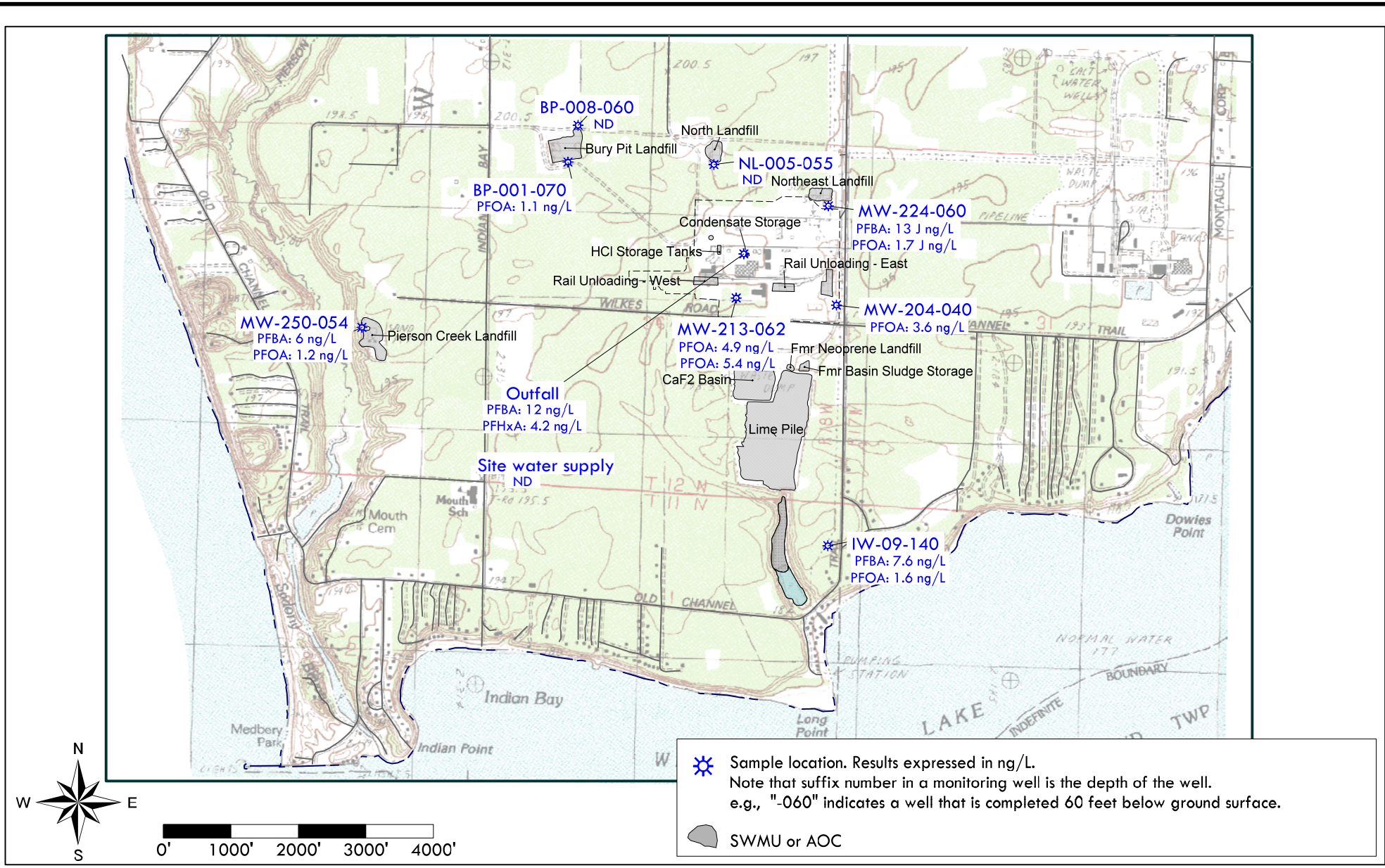
Table 3
Analytical Results
August 2018 PFAS Sampling
Chemours Montague Works
Montague, Michigan

Sample ID	Location ID	Analyte		Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic Acid	Perfluorotetradecanoic Acid	Perfluorotridecanoic Acid	Perfluoroundecanoic Acid	PFOA	PFOS	PFOA+ PFOS[1]
		Screening Criteria		*	*	*	*	*	70	70	70
		Date	Purpose	ng/l	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
August 2018 PFAS Sampling											
PFAS0818-Outfall	"001"	8/22/18	Regular Sample	ND 3.3	ND 9.9	ND 1.7	ND 1.7	ND 3.3	ND 1.7	ND 3.3	ND
EB-082218-1	EQBLK	8/22/18	Equipment Blank	ND 1.8	ND 5.4	ND 0.91	ND 0.91	ND 1.8	ND 0.91	ND 1.8	ND
EB-082218-2	EQBLK	8/23/18	Equipment Blank	ND 1.9	ND 5.6	ND 0.93	ND 0.93	ND 1.9	ND 0.93	ND 1.9	ND
FB-082218-1	FBLK	8/22/18	Field Blank	ND 1.8	ND 5.4	ND 0.91	ND 0.91	ND 1.8	ND 0.91	ND 1.8	ND
FB-082218-2	FBLK	8/23/18	Field Blank	ND 1.8	ND 5.4	ND 0.9	ND 0.9	ND 1.8	ND 0.9	ND 1.8	ND
PFAS0818-IW-09-140	IW-09-140	8/23/18	Regular Sample	ND 1.8	ND 5.4	ND 0.9	ND 0.9	ND 1.8	**1.6**	ND 1.8	3.4
PFAS0818-MW-204-040	MW-204-040	8/22/18	Regular Sample	ND 1.8	ND 5.3	ND 0.88	ND 0.88	ND 1.8	**3.6**	ND 1.8	5.4
PFAS0818-MW-213-062	MW-213-062	8/22/18	Regular Sample	ND 1.8	ND 5.5	ND 0.91	ND 0.91	ND 1.8	**4.9**	ND 1.8	6.7
PFAS0818-MW-213-062-D	MW-213-062	8/22/18	Field Duplicate	ND 1.9	ND 5.6	ND 0.93	ND 0.93	ND 1.9	**5.4**	ND 1.9	7.3
PFAS0818-MW-224-060	MW-224-060	8/23/18	Regular Sample	ND 2.5	ND 7.5	ND 1.2	ND 1.2	ND 2.5	**1.7J**	ND 2.5	4.2
PFAS0818-MW-250-054	MW-250-054	8/22/18	Regular Sample	ND 2.0	ND 6.0	ND 1.0	ND 1.0	ND 2.0	**1.2**	ND 2.0	3.2
PFAS0818-BP-001-070	MW-BP-001-070	8/23/18	Regular Sample	ND 1.9	ND 5.6	ND 0.93	ND 0.93	ND 1.9	**1.1**	ND 1.9	3
PFAS0818-BP-008-060	MW-BP-008-060	8/23/18	Regular Sample	ND 1.8	ND 5.3	ND 0.88	ND 0.88	ND 1.8	ND 0.88	ND 1.8	ND
PFAS0818-NL-005-055	NL-005-055	8/23/18	Regular Sample	ND 1.8	ND 5.4	ND 0.89	ND 0.89	ND 1.8	ND 0.89	ND 1.8	ND
PFAS0818-SiteW	SiteW	8/23/18	Regular Sample	ND 1.9	ND 5.6	ND 0.93	ND 0.93	ND 1.9	ND 0.93	ND 1.9	ND

[1]: PFOS + PFOA, if one constituent is ND then assume the second constituent to be present at the detection limit.

*: MDEQ clean up standard for total PFAS is 70 parts per trillion (equivalent to 70 nanograms per liter).
ND = Non detect at stated reporting limit
J = Estimated result

Figure



AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, DE 19713

TITLE:

PFAS Sampling Results - Detections
Chemours Montague Site
Montague, Michigan

DWN:	APPD:
GEG	
CHKD:	REV:
KLD	
DATE:	
10/01/2018	

PROJECT NO: 60561815

FIGURE NO: 1

Appendix A

Field Notes from August 2018

8/22/18 Montague

Scope: Drive to site & Begin GW sampling
Personnel: H. Thiel; B. Nettcott (on site)
Weather: 70s; cloudy - ptly cloudy; breezy

0030 CST Begin commute to Jobsite
0300 EST arrive at Montague MI
0700 ARRIVE ONSITE
Prep paperwork; calibrate AT600; set up for sampling
0845 Wait for MDEQ to arrive onsite
1000 MDEQ arrives onsite
-set up & begin purge @ MW-213-062
1100 -call G. gregory about sampling plan deviation. Purge taking much longer than anticipated onsite. George will make calls to see if we can go to five low-flow instead of 3 volumes
1110 Sample Outfall for PFAS - Agency splits samples
1320 G. Gregory states appropriate approvals are gained for sampling to be moved to five low flow vs. 3 volumes
1330 Collect Sample MW-213-062 for PFAS. MS/MSD & Duplicate Sample Agency splits sample onsite.
1345 Agency finishes splitting sample; clean up @ well location
1350 MDEQ offsite
1400 lunch
1430 onsite - get set up @ MW-250-054
1450 Begin purge @ MW-250-054
1550 Finish purge & collect sample MW-250-054 for PFAS
-Clean up @ well, mobto MW-204-040
1610 Begin purge @ MW-204-040
1710 Finish purge @ MW-204-040; collect sample for PFAS
-Clean up @ well
1700 Collect FB-082218-1
1720 Collect FB-082218-1
1730 arrive @ main building; put samples away & refill equipment (AT600) and finish for day
1745 offsite

8/22/18

TITLE Montague PFAS Sampling PROJECT NO. pg 1 of 1 11
BOOK NO.

Work continued from Page

Scope: finish GW sampling onsite; commute to Milwaukee
Personnel: H. Thiel; B. Nesbitt
Weather: 80s; ptly cloudy; breezy

0730 ARRIVE ONSITE
prep paperwork; calibrate AT600; set up for sampling
0830 Mob to MW-224-060 & set up for purge
0854 Begin purge @ MW-224-060
0955 Finish purge @ MW-224-060; collect PFAS sample
- clean up @ well; prep & mob to NL-005-055
1035 Begin purge @ NL-005-055
1115 Finish purge @ NL-005-055 & collect PFAS sample
- clean up @ well; prep & mob to BP-008-060
1143 Begin purge @ BP-008-060
1225 Finish purge @ BP-008-060 & collect PFAS sample
- clean up @ well; prep & mob to BP-001-070
1240 ARRIVE @ well & begin set up BP-001-070
- well has no casing (well stainless steel); just outer casing. well is not monitoring well but maybe an old site well?
1257 Begin purging @ BP-001-070
- water begins very ~~orga~~ HW reddish orange & turbid. clearing w/ volume
1415 Finish purge @ BP-001-070; collect PFAS sample
- clean up @ well; prep & mob to site water supply
(oops - wrote 1515 on sample times) HW
1430 Collect purge parameters on Site Water; collect PFAS sample
1500 Collect purge parameters on IW-09-140; collect PFAS sample
1515 - package equipment & coolers when @ main building
Bracken to ship samples via FedEx & return Geopump Submersible
Heather mob to Milwaukee & return equipment (AT600)
1545 Depart site - end field work for day

Heath Thiel 8/23/18

Work continued to Page

www.scientificbinder.com

SIGNATURE DATE WITNESS DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

B 100 P G

Low-Flow Test Report:

Test Date / Time: 8/22/2018 10:05:09 AM
Project: Chemours-montague
Operator Name: H. Thiel; B. Netcott

Location Name: MW-213-062 **Well Diameter: 4 in** **Casing Type: Stainless** **Screen Length: 10 ft** **Top of Screen: 52 ft** **Total Depth: 62 ft** **Initial Depth to Water: 34.25 ft**	**Pump Type: Bladder** **Tubing Type: Hdpe** **Pump Intake From TOC: 58 ft** **Estimated Total Volume Pumped: 13 gal** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 38.45 ft**	**Instrument Used: Aqua TROLL 600 Vented** **Serial Number: 588244**

Test Notes:
Test crashed. Restart test with continuation of parameters. Time in Tablet/purge test is hour behind due to time zone shift.

Weather Conditions:
70 F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.03	
8/22/2018 10:05 AM	00:00	7.76 pH	14.25 °C	385.61 µS/cm	9.03 mg/L	13.70 NTU	135.2 mV	38.25 ft	250.00 ml/min
8/22/2018 10:08 AM	03:11	7.79 pH	14.14 °C	388.89 µS/cm	9.04 mg/L	14.37 NTU	129.5 mV	38.45 ft	250.00 ml/min
8/22/2018 10:09 AM	04:01	7.81 pH	13.79 °C	387.53 µS/cm	9.08 mg/L	16.63 NTU	125.7 mV	38.45 ft	250.00 ml/min
8/22/2018 10:14 AM	09:01	7.76 pH	13.87 °C	390.46 µS/cm	9.05 mg/L	22.59 NTU	124.5 mV	38.45 ft	250.00 ml/min
8/22/2018 10:19 AM	14:01	7.54 pH	13.60 °C	389.06 µS/cm	9.33 mg/L	25.33 NTU	134.9 mV	38.45 ft	250.00 ml/min
8/22/2018 10:19 AM	14:49	7.48 pH	13.34 °C	388.36 µS/cm	9.34 mg/L	35.15 NTU	136.7 mV	38.45 ft	250.00 ml/min
8/22/2018 10:24 AM	19:49	7.23 pH	13.17 °C	387.10 µS/cm	9.67 mg/L	64.76 NTU	149.4 mV	38.45 ft	250.00 ml/min
8/22/2018 10:25 AM	20:43	7.21 pH	13.07 °C	389.01 µS/cm	9.72 mg/L	70.68 NTU	150.2 mV	38.45 ft	250.00 ml/min
8/22/2018 10:30 AM	25:43	7.20 pH	13.18 °C	389.11 µS/cm	9.80 mg/L	148.11 NTU	149.1 mV	38.45 ft	250.00 ml/min
8/22/2018 10:35 AM	30:43	7.31 pH	13.17 °C	388.95 µS/cm	9.88 mg/L	12.16 NTU	142.2 mV	38.47 ft	250.00 ml/min
8/22/2018 10:40 AM	35:43	7.43 pH	13.21 °C	388.01 µS/cm	9.87 mg/L	17.18 NTU	134.3 mV	38.47 ft	250.00 ml/min
8/22/2018 10:45 AM	40:43	7.48 pH	13.21 °C	387.42 µS/cm	9.91 mg/L	3.99 NTU	131.1 mV	38.47 ft	250.00 ml/min
8/22/2018 10:50 AM	45:43	7.49 pH	13.25 °C	385.38 µS/cm	9.94 mg/L	2.00 NTU	129.9 mV	38.47 ft	250.00 ml/min

8/22/2018 10:55 AM	50:43	7.50 pH	13.05 °C	384.38 µS/cm	9.99 mg/L	4.99 NTU	129.5 mV	38.47 ft	250.00 ml/min
8/22/2018 11:00 AM	55:43	7.48 pH	13.00 °C	382.25 µS/cm	10.01 mg/L	11.17 NTU	130.2 mV	38.47 ft	250.00 ml/min
8/22/2018 11:17 AM	01:12:47	7.42 pH	13.04 °C	383.08 µS/cm	9.95 mg/L	1.27 NTU	133.1 mV	38.47 ft	250.00 ml/min
8/22/2018 11:18 AM	01:13:40	7.41 pH	13.10 °C	384.75 µS/cm	10.01 mg/L	1.13 NTU	134.1 mV	38.47 ft	250.00 ml/min
8/22/2018 11:19 AM	01:14:12	7.41 pH	12.87 °C	379.23 µS/cm	10.07 mg/L	1.23 NTU	134.4 mV	38.47 ft	250.00 ml/min
8/22/2018 11:24 AM	01:19:12	7.36 pH	12.92 °C	378.15 µS/cm	10.10 mg/L	1.04 NTU	137.1 mV	38.47 ft	250.00 ml/min
8/22/2018 11:29 AM	01:24:12	7.35 pH	12.96 °C	377.45 µS/cm	10.13 mg/L	1.50 NTU	137.3 mV	38.47 ft	250.00 ml/min
8/22/2018 11:34 AM	01:29:12	7.35 pH	13.01 °C	375.98 µS/cm	10.13 mg/L	1.17 NTU	137.1 mV	38.47 ft	250.00 ml/min
8/22/2018 11:39 AM	01:34:12	7.36 pH	13.07 °C	374.81 µS/cm	10.08 mg/L	1.15 NTU	136.8 mV	38.47 ft	250.00 ml/min
8/22/2018 11:44 AM	01:39:12	7.37 pH	13.15 °C	373.04 µS/cm	10.08 mg/L	1.30 NTU	136.4 mV	38.47 ft	250.00 ml/min
8/22/2018 11:49 AM	01:44:12	7.38 pH	13.08 °C	372.53 µS/cm	10.09 mg/L	1.37 NTU	136.2 mV	38.47 ft	250.00 ml/min
8/22/2018 11:54 AM	01:49:12	7.39 pH	13.07 °C	370.61 µS/cm	10.08 mg/L	1.15 NTU	135.6 mV	38.47 ft	250.00 ml/min
8/22/2018 11:59 AM	01:54:12	7.35 pH	13.13 °C	368.84 µS/cm	9.95 mg/L	1.13 NTU	138.5 mV	38.47 ft	250.00 ml/min
8/22/2018 12:04 PM	01:59:12	7.32 pH	13.29 °C	372.27 µS/cm	9.92 mg/L	1.13 NTU	140.0 mV	38.47 ft	250.00 ml/min
8/22/2018 12:09 PM	02:04:12	7.32 pH	13.24 °C	368.15 µS/cm	9.89 mg/L	1.12 NTU	140.8 mV	38.47 ft	250.00 ml/min
8/22/2018 12:14 PM	02:09:12	7.32 pH	13.27 °C	365.41 µS/cm	9.94 mg/L	1.17 NTU	141.2 mV	38.47 ft	250.00 ml/min
8/22/2018 12:19 PM	02:14:12	7.32 pH	13.34 °C	366.86 µS/cm	9.96 mg/L	1.14 NTU	141.0 mV	38.47 ft	250.00 ml/min
8/22/2018 12:24 PM	02:19:12	7.33 pH	13.22 °C	362.70 µS/cm	9.95 mg/L	1.15 NTU	141.3 mV	38.47 ft	250.00 ml/min

Samples

Sample ID:	Description:
PFAS0818-MW-213-062	PFAS sample, duplicate, & ms msd taken at 13:30.

Low-Flow Test Report:

Test Date / Time: 8/22/2018 2:00:33 PM
Project: Chemours-montague
Operator Name: H. Thiel; B. Netcott

Location Name: MW-250-054 **Well Diameter: 4 in** **Casing Type: Pvc** **Screen Length: 10 ft** **Top of Screen: 44 ft** **Total Depth: 54 ft** **Initial Depth to Water: 45.34 ft**	**Pump Type: Bladder** **Tubing Type: Hdpe** **Pump Intake From TOC: 49 ft** **Estimated Total Volume Pumped: 4 gal** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0.51 ft**	**Instrument Used: Aqua TROLL 600 Vented** **Serial Number: 588244**

Test Notes:
Time stamps in test are an hour behind actual time, due to timezone shift.

Weather Conditions:
70s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.03	
8/22/2018 2:00 PM	00:00	6.88 pH	20.00 °C	1,137.8 µS/cm	3.26 mg/L	2,755.0 NTU	116.5 mV	45.34 ft	250.00 ml/min
8/22/2018 2:05 PM	05:00	6.89 pH	13.46 °C	1,186.7 µS/cm	0.25 mg/L	161.56 NTU	36.8 mV	45.61 ft	250.00 ml/min
8/22/2018 2:10 PM	10:00	6.81 pH	12.30 °C	1,178.4 µS/cm	0.36 mg/L	106.16 NTU	22.7 mV	45.75 ft	250.00 ml/min
8/22/2018 2:15 PM	15:00	6.59 pH	12.24 °C	1,150.3 µS/cm	0.62 mg/L	62.28 NTU	31.8 mV	45.85 ft	250.00 ml/min
8/22/2018 2:20 PM	20:00	6.51 pH	11.84 °C	1,139.7 µS/cm	0.73 mg/L	41.83 NTU	27.6 mV	45.85 ft	250.00 ml/min
8/22/2018 2:25 PM	25:00	6.54 pH	11.88 °C	1,146.4 µS/cm	0.74 mg/L	23.13 NTU	18.8 mV	45.85 ft	250.00 ml/min
8/22/2018 2:30 PM	30:00	6.62 pH	11.60 °C	1,155.7 µS/cm	0.72 mg/L	16.10 NTU	8.1 mV	45.85 ft	250.00 ml/min
8/22/2018 2:35 PM	35:00	6.66 pH	11.71 °C	1,169.0 µS/cm	0.69 mg/L	16.50 NTU	2.9 mV	45.85 ft	250.00 ml/min
8/22/2018 2:40 PM	40:00	6.67 pH	11.46 °C	1,164.2 µS/cm	0.70 mg/L	15.19 NTU	-0.7 mV	45.85 ft	250.00 ml/min
8/22/2018 2:45 PM	45:00	6.69 pH	11.56 °C	1,167.0 µS/cm	0.75 mg/L	12.61 NTU	-3.5 mV	45.85 ft	250.00 ml/min
8/22/2018 2:50 PM	50:00	6.67 pH	11.58 °C	1,170.3 µS/cm	0.87 mg/L	8.72 NTU	-2.6 mV	45.85 ft	250.00 ml/min

Samples

Sample ID:	Description:
PFAS0818-MW-250-054	PFAS @ 15:50

Low-Flow Test Report:

Test Date / Time: 8/22/2018 3:23:07 PM
Project: Chemours-montague
Operator Name: H. Thiel; B. Netcott

Location Name: MW-204-040 **Well Diameter: 2 in** **Casing Type: Pvc** **Screen Length: 10 ft** **Top of Screen: 30 ft** **Total Depth: 32 ft** **Initial Depth to Water: 26.05 ft**	**Pump Type: Bladder** **Tubing Type: Hdpe** **Pump Intake From TOC: 30 ft** **Estimated Total Volume Pumped: 4.5 gal** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0.06 ft**	**Instrument Used: Aqua TROLL 600 Vented** **Serial Number: 588244**

Test Notes:
Time in unit is hour behind actual sample time, due to time zone shift.

Weather Conditions:
70s, sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.03	
8/22/2018 3:23 PM	00:00	7.46 pH	18.86 °C	371.28 µS/cm	8.35 mg/L	519.90 NTU	40.9 mV	26.05 ft	250.00 ml/min
8/22/2018 3:28 PM	05:00	7.44 pH	13.61 °C	357.53 µS/cm	8.77 mg/L	79.71 NTU	37.2 mV	26.11 ft	250.00 ml/min
8/22/2018 3:33 PM	10:00	7.43 pH	13.25 °C	360.38 µS/cm	8.76 mg/L	52.14 NTU	40.0 mV	26.15 ft	250.00 ml/min
8/22/2018 3:38 PM	15:00	7.41 pH	12.84 °C	360.46 µS/cm	9.01 mg/L	79.36 NTU	42.9 mV	26.11 ft	250.00 ml/min
8/22/2018 3:43 PM	20:00	7.38 pH	12.66 °C	362.30 µS/cm	9.17 mg/L	21.34 NTU	46.3 mV	26.11 ft	250.00 ml/min
8/22/2018 3:48 PM	25:00	7.36 pH	12.47 °C	365.31 µS/cm	9.31 mg/L	19.99 NTU	48.5 mV	26.11 ft	250.00 ml/min
8/22/2018 3:53 PM	30:00	7.35 pH	12.43 °C	367.03 µS/cm	9.48 mg/L	14.15 NTU	51.0 mV	26.11 ft	250.00 ml/min
8/22/2018 3:58 PM	35:00	7.36 pH	12.39 °C	370.95 µS/cm	9.43 mg/L	12.18 NTU	51.6 mV	26.11 ft	250.00 ml/min
8/22/2018 4:03 PM	40:00	7.36 pH	12.26 °C	368.05 µS/cm	9.56 mg/L	16.60 NTU	52.9 mV	26.11 ft	250.00 ml/min
8/22/2018 4:08 PM	45:00	7.39 pH	12.23 °C	368.74 µS/cm	9.61 mg/L	15.93 NTU	53.0 mV	26.11 ft	250.00 ml/min

Samples

Sample ID:	Description:

PFAS0818-MW-204-040	PFAS @ 17:10

Low-Flow Test Report:

Test Date / Time: 8/23/2018 7:54:59 AM
Project: Chemours-montague (2)
Operator Name: H. Thiel; B. Netcott

Location Name: MW-224-60 **Well Diameter: 4 in** **Casing Type: Pvc** **Screen Length: 10 ft** **Top of Screen: 50 ft** **Total Depth: 60 ft** **Initial Depth to Water: 36.65 ft**	**Pump Type: Bladder** **Tubing Type: Hdpe** **Pump Intake From TOC: 55 ft** **Estimated Total Volume Pumped: 5 gal** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 36.25 ft**	**Instrument Used: Aqua TROLL 600 Vented** **Serial Number: 588244**

Test Notes:
Blackish green purge water

Weather Conditions:
60s, sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.03	
8/23/2018 7:54 AM	00:00	7.19 pH	17.79 °C	458.01 µS/cm	1.50 mg/L	32.75 NTU	21.6 mV	36.65 ft	250.00 ml/min
8/23/2018 7:59 AM	05:00	7.33 pH	13.28 °C	459.47 µS/cm	0.30 mg/L	5.05 NTU	-77.1 mV	36.65 ft	250.00 ml/min
8/23/2018 8:04 AM	10:00	7.40 pH	11.85 °C	462.00 µS/cm	0.15 mg/L	4.31 NTU	-102.6 mV	36.65 ft	250.00 ml/min
8/23/2018 8:09 AM	15:00	7.44 pH	11.70 °C	463.49 µS/cm	0.14 mg/L	3.33 NTU	-113.7 mV	36.65 ft	250.00 ml/min
8/23/2018 8:14 AM	20:00	7.31 pH	11.64 °C	467.26 µS/cm	0.19 mg/L	3.15 NTU	-112.5 mV	36.65 ft	250.00 ml/min
8/23/2018 8:19 AM	25:00	7.08 pH	11.53 °C	457.43 µS/cm	0.15 mg/L	3.57 NTU	-103.9 mV	36.65 ft	250.00 ml/min
8/23/2018 8:24 AM	30:00	6.93 pH	11.82 °C	454.46 µS/cm	0.23 mg/L	2.96 NTU	-97.3 mV	36.65 ft	250.00 ml/min
8/23/2018 8:29 AM	35:00	6.89 pH	11.86 °C	448.45 µS/cm	0.21 mg/L	4.07 NTU	-96.4 mV	36.65 ft	250.00 ml/min
8/23/2018 8:34 AM	40:00	6.89 pH	12.07 °C	448.05 µS/cm	0.33 mg/L	5.55 NTU	-96.6 mV	36.65 ft	250.00 ml/min
8/23/2018 8:39 AM	45:00	6.95 pH	12.14 °C	448.61 µS/cm	0.28 mg/L	3.90 NTU	-100.0 mV	36.65 ft	250.00 ml/min
8/23/2018 8:44 AM	50:00	7.01 pH	12.17 °C	436.45 µS/cm	0.34 mg/L	2.49 NTU	-102.7 mV	36.65 ft	250.00 ml/min
8/23/2018 8:45 AM	50:56	7.03 pH	11.96 °C	434.74 µS/cm	0.33 mg/L	2.47 NTU	-103.2 mV	36.65 ft	250.00 ml/min
8/23/2018 8:46 AM	51:37	7.05 pH	11.92 °C	432.89 µS/cm	0.31 mg/L	2.33 NTU	-104.8 mV	36.65 ft	250.00 ml/min

8/23/2018 8:49 AM	54:37	7.09 pH	11.81 °C	436.07 µS/cm	0.35 mg/L	2.30 NTU	-106.4 mV	36.65 ft	250.00 ml/min
8/23/2018 8:52 AM	57:37	7.05 pH	11.75 °C	431.32 µS/cm	0.36 mg/L	2.42 NTU	-104.1 mV	36.65 ft	250.00 ml/min

Samples

Sample ID:	Description:
PFAS0818-MW-224-060	PFAS @ 09:55

Low-Flow Test Report:

Test Date / Time: 8/23/2018 9:37:38 AM
Project: Chemours-montague
Operator Name: H. Thiel; B. Netcott

Location Name: NL-005-055 **Well Diameter: 4 in** **Casing Type: Pvc** **Screen Length: 10 ft** **Top of Screen: 45 ft** **Total Depth: 55 ft** **Initial Depth to Water: 35.5 ft**	**Pump Type: Bladder** **Tubing Type: Hdpe** **Pump Intake From TOC: 50 ft** **Estimated Total Volume Pumped: 4 gal** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 30.56 ft**	**Instrument Used: Aqua TROLL 600 Vented** **Serial Number: 588244**

Test Notes:
Test time in instrument is an hour behind actual time, due to time zone shift

Weather Conditions:
70s, sunny, humid, breezy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.03	
8/23/2018 9:37 AM	00:00	7.75 pH	15.89 °C	321.32 µS/cm	9.46 mg/L	19.92 NTU	-63.5 mV	35.50 ft	250.00 ml/min
8/23/2018 9:40 AM	03:00	7.79 pH	12.01 °C	340.83 µS/cm	10.53 mg/L	18.72 NTU	-30.9 mV	30.54 ft	250.00 ml/min
8/23/2018 9:43 AM	06:00	7.84 pH	11.40 °C	342.01 µS/cm	10.65 mg/L	23.21 NTU	-22.7 mV	30.56 ft	250.00 ml/min
8/23/2018 9:46 AM	09:00	7.85 pH	11.27 °C	344.59 µS/cm	10.65 mg/L	17.95 NTU	-17.5 mV	30.56 ft	250.00 ml/min
8/23/2018 9:49 AM	12:00	7.83 pH	11.24 °C	346.41 µS/cm	10.59 mg/L	12.53 NTU	-12.7 mV	30.56 ft	250.00 ml/min
8/23/2018 9:52 AM	15:00	7.77 pH	11.19 °C	348.95 µS/cm	10.87 mg/L	7.37 NTU	-5.9 mV	30.56 ft	250.00 ml/min
8/23/2018 9:55 AM	18:00	7.66 pH	11.06 °C	343.58 µS/cm	11.21 mg/L	5.85 NTU	2.8 mV	30.56 ft	250.00 ml/min
8/23/2018 9:58 AM	21:00	7.52 pH	10.98 °C	344.39 µS/cm	11.14 mg/L	3.55 NTU	12.3 mV	30.56 ft	250.00 ml/min
8/23/2018 10:01 AM	24:00	7.40 pH	10.88 °C	345.27 µS/cm	11.17 mg/L	2.98 NTU	21.0 mV	30.56 ft	250.00 ml/min
8/23/2018 10:04 AM	27:00	7.32 pH	10.93 °C	345.12 µS/cm	11.25 mg/L	3.78 NTU	26.9 mV	30.56 ft	250.00 ml/min
8/23/2018 10:07 AM	30:00	7.28 pH	10.88 °C	344.58 µS/cm	11.28 mg/L	4.02 NTU	30.6 mV	30.56 ft	250.00 ml/min
8/23/2018 10:10 AM	33:00	7.27 pH	10.84 °C	343.99 µS/cm	11.32 mg/L	2.86 NTU	32.5 mV	30.56 ft	250.00 ml/min
8/23/2018 10:13 AM	36:00	7.29 pH	10.78 °C	344.58 µS/cm	11.34 mg/L	3.06 NTU	33.4 mV	30.56 ft	250.00 ml/min

8/23/2018 10:16 AM	39:00	7.31 pH	10.73 °C	344.80 µS/cm	11.35 mg/L	1.77 NTU	33.5 mV	30.56 ft	250.00 ml/min

Samples

Sample ID:	Description:
PFAS0818-NL-005-055	PFAS @ 11:15

Low-Flow Test Report:

Test Date / Time: 8/23/2018 10:43:15 AM
Project: Chemours-montague
Operator Name: H. Thiel; B. Netcott

Location Name: BP-008-060 **Well Diameter: 4 in** **Casing Type: Pvc** **Screen Length: 10 ft** **Top of Screen: 50 ft** **Total Depth: 60 ft** **Initial Depth to Water: 44.4 ft**	**Pump Type: Bladder** **Tubing Type: Hdpe** **Pump Intake From TOC: 55 ft** **Estimated Total Volume Pumped: 3.75 gal** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 46.24 ft**	**Instrument Used: Aqua TROLL 600 Vented** **Serial Number: 588244**

Test Notes:
Test time in device is an hour behind actual time, due to time zone shift.

Weather Conditions:
70s, sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.03	
8/23/2018 10:43 AM	00:00	7.31 pH	16.55 °C	0.76 µS/cm	10.20 mg/L	0.18 NTU	28.3 mV	44.40 ft	250.00 ml/min
8/23/2018 10:46 AM	03:00	7.28 pH	13.45 °C	1.43 µS/cm	9.53 mg/L	12.80 NTU	34.0 mV	44.72 ft	250.00 ml/min
8/23/2018 10:49 AM	06:00	7.27 pH	12.18 °C	1.47 µS/cm	9.87 mg/L	3.08 NTU	36.6 mV	45.19 ft	250.00 ml/min
8/23/2018 10:52 AM	09:00	7.27 pH	11.61 °C	1.42 µS/cm	10.05 mg/L	0.90 NTU	40.6 mV	45.53 ft	250.00 ml/min
8/23/2018 10:55 AM	12:00	7.28 pH	11.33 °C	1.20 µS/cm	10.12 mg/L	0.33 NTU	44.5 mV	45.89 ft	250.00 ml/min
8/23/2018 10:58 AM	15:00	7.28 pH	11.18 °C	1.14 µS/cm	10.14 mg/L	0.33 NTU	50.2 mV	46.02 ft	250.00 ml/min
8/23/2018 11:01 AM	18:00	7.29 pH	11.07 °C	1.55 µS/cm	10.20 mg/L	1.05 NTU	47.4 mV	46.12 ft	250.00 ml/min
8/23/2018 11:04 AM	21:00	7.30 pH	10.93 °C	1.36 µS/cm	10.22 mg/L	38.55 NTU	53.5 mV	46.24 ft	250.00 ml/min
8/23/2018 11:07 AM	24:00	7.30 pH	10.90 °C	1.29 µS/cm	10.20 mg/L	0.73 NTU	53.8 mV	46.24 ft	250.00 ml/min
8/23/2018 11:10 AM	27:00	7.31 pH	10.88 °C	1.22 µS/cm	10.26 mg/L	0.64 NTU	52.8 mV	46.24 ft	250.00 ml/min
8/23/2018 11:13 AM	30:00	7.33 pH	10.86 °C	1.15 µS/cm	10.31 mg/L	0.35 NTU	55.7 mV	46.24 ft	250.00 ml/min
8/23/2018 11:16 AM	33:00	7.36 pH	10.83 °C	1.51 µS/cm	10.39 mg/L	8.14 NTU	49.8 mV	46.24 ft	250.00 ml/min
8/23/2018 11:19 AM	36:00	7.37 pH	10.78 °C	1.34 µS/cm	10.35 mg/L	44.53 NTU	51.2 mV	46.24 ft	250.00 ml/min

8/23/2018 11:22 AM	39:00	7.38 pH	10.76 °C	1.29 µS/cm	10.32 mg/L	1.20 NTU	49.1 mV	46.24 ft	250.00 ml/min
8/23/2018 11:25 AM	42:00	7.40 pH	10.80 °C	1.19 µS/cm	10.32 mg/L	0.97 NTU	49.5 mV	46.24 ft	250.00 ml/min

Samples

Sample ID:	Description:
PFAS0818-BP-008-060	PFAS @ 12:30

Low-Flow Test Report:

Test Date / Time: 8/23/2018 11:57:20 AM
Project: Chemours-montague
Operator Name: H. Thiel; B. Netcott

Location Name: BP-001-070 **Well Diameter: 4 in** **Casing Type: Steel** **Screen Length: 10 ft** **Top of Screen: 60 ft** **Total Depth: 70 ft** **Initial Depth to Water: 50.25 ft**	**Pump Type: Bladder** **Tubing Type: Hdpe** **Pump Intake From TOC: 65 ft** **Estimated Total Volume Pumped: 9 gal** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 50.24 ft**	**Instrument Used: Aqua TROLL 600 Vented** **Serial Number: 588244**

Test Notes:
No pvc or stainless casing on well. Time in device is an hour behind actual time due to time zone shift.
Water started out extremely reddish orange and turbid. Clearing with volume.

Weather Conditions:
70s, sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.03	
8/23/2018 11:57 AM	00:00	7.82 pH	14.20 °C	369.95 µS/cm	8.05 mg/L	1,812.3 NTU	-6.2 mV	50.25 ft	250.00 ml/min
8/23/2018 12:00 PM	03:00	7.89 pH	12.24 °C	377.39 µS/cm	8.10 mg/L	1,074.8 NTU	-0.2 mV	50.26 ft	250.00 ml/min
8/23/2018 12:03 PM	06:00	7.86 pH	11.68 °C	375.57 µS/cm	7.92 mg/L	605.85 NTU	1.1 mV	50.26 ft	250.00 ml/min
8/23/2018 12:06 PM	09:00	7.83 pH	11.66 °C	374.65 µS/cm	7.65 mg/L	383.11 NTU	-10.7 mV	50.26 ft	250.00 ml/min
8/23/2018 12:09 PM	12:00	7.80 pH	11.42 °C	373.54 µS/cm	7.60 mg/L	291.51 NTU	-20.2 mV	50.26 ft	250.00 ml/min
8/23/2018 12:12 PM	15:00	7.77 pH	11.50 °C	372.90 µS/cm	7.56 mg/L	246.23 NTU	-26.7 mV	50.26 ft	250.00 ml/min
8/23/2018 12:15 PM	18:00	7.72 pH	11.39 °C	371.31 µS/cm	7.24 mg/L	214.21 NTU	-34.5 mV	50.26 ft	250.00 ml/min
8/23/2018 12:18 PM	21:00	7.67 pH	11.53 °C	371.33 µS/cm	7.05 mg/L	196.27 NTU	-38.3 mV	50.26 ft	250.00 ml/min
8/23/2018 12:21 PM	24:00	7.65 pH	11.35 °C	369.66 µS/cm	7.02 mg/L	161.80 NTU	-42.0 mV	50.26 ft	250.00 ml/min
8/23/2018 12:24 PM	27:00	7.65 pH	11.25 °C	369.32 µS/cm	7.04 mg/L	151.66 NTU	-43.6 mV	50.26 ft	250.00 ml/min
8/23/2018 12:27 PM	30:00	7.64 pH	11.34 °C	370.09 µS/cm	7.07 mg/L	137.95 NTU	-43.0 mV	50.26 ft	250.00 ml/min
8/23/2018 12:30 PM	33:00	7.64 pH	11.25 °C	373.26 µS/cm	7.37 mg/L	119.63 NTU	-43.1 mV	50.26 ft	250.00 ml/min
8/23/2018 12:33 PM	36:00	7.63 pH	11.41 °C	372.82 µS/cm	7.56 mg/L	109.24 NTU	-42.4 mV	50.26 ft	250.00 ml/min

8/23/2018 12:36 PM	39:00	7.64 pH	11.30 °C	374.37 µS/cm	7.61 mg/L	121.82 NTU	-41.0 mV	50.26 ft	250.00 ml/min
8/23/2018 12:39 PM	42:00	7.62 pH	11.46 °C	375.36 µS/cm	7.55 mg/L	97.51 NTU	-39.7 mV	50.26 ft	250.00 ml/min
8/23/2018 12:42 PM	45:00	7.61 pH	11.42 °C	373.78 µS/cm	7.70 mg/L	86.22 NTU	-40.1 mV	50.26 ft	250.00 ml/min
8/23/2018 12:45 PM	48:00	7.60 pH	11.34 °C	373.58 µS/cm	7.85 mg/L	79.30 NTU	-38.6 mV	50.26 ft	250.00 ml/min
8/23/2018 12:48 PM	51:00	7.60 pH	11.49 °C	377.14 µS/cm	8.00 mg/L	79.60 NTU	-36.0 mV	50.26 ft	250.00 ml/min
8/23/2018 12:51 PM	54:00	7.62 pH	11.38 °C	379.16 µS/cm	8.35 mg/L	60.20 NTU	-35.3 mV	50.26 ft	250.00 ml/min
8/23/2018 12:54 PM	57:00	7.64 pH	11.49 °C	380.82 µS/cm	8.47 mg/L	57.42 NTU	-33.3 mV	50.26 ft	250.00 ml/min
8/23/2018 12:57 PM	01:00:00	7.66 pH	11.43 °C	382.44 µS/cm	8.75 mg/L	49.54 NTU	-31.4 mV	50.26 ft	250.00 ml/min
8/23/2018 1:00 PM	01:03:00	7.66 pH	11.62 °C	392.17 µS/cm	8.87 mg/L	43.69 NTU	-28.9 mV	50.26 ft	250.00 ml/min
8/23/2018 1:03 PM	01:06:00	7.64 pH	11.52 °C	381.15 µS/cm	8.57 mg/L	42.49 NTU	-29.4 mV	50.26 ft	250.00 ml/min
8/23/2018 1:06 PM	01:09:00	7.62 pH	11.83 °C	383.08 µS/cm	8.36 mg/L	42.74 NTU	-31.6 mV	50.26 ft	250.00 ml/min
8/23/2018 1:09 PM	01:12:00	7.61 pH	11.68 °C	379.02 µS/cm	8.47 mg/L	37.11 NTU	-32.5 mV	50.26 ft	250.00 ml/min
8/23/2018 1:12 PM	01:15:00	7.61 pH	11.60 °C	377.74 µS/cm	8.54 mg/L	39.72 NTU	-31.0 mV	50.26 ft	250.00 ml/min
8/23/2018 1:15 PM	01:18:00	7.62 pH	11.76 °C	379.63 µS/cm	8.57 mg/L	37.28 NTU	-31.0 mV	50.26 ft	250.00 ml/min

Samples

Sample ID:	Description:
PFAS0818-BP-001-070	PFAS @ 15:15

Low-Flow Test Report:

Test Date / Time: 8/23/2018 1:44:03 PM
Project: Chemours-montague
Operator Name: H. Thiel; B. Netcott

Location Name: Site Water	**Pump Type: Bladder** **Tubing Type: Hdpe** **Estimated Total Volume Pumped: 3 gal** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min**	**Instrument Used: Aqua TROLL 600 Vented** **Serial Number: 588244**

Test Notes:
Site water. Do not know info about well supplying site water

Weather Conditions:
70s, sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.03	
8/23/2018 1:44 PM	00:00	7.08 pH	23.24 °C	233.96 µS/cm	3.66 mg/L	7.98 NTU	61.3 mV		250.00 ml/min
8/23/2018 1:44 PM	00:55	6.58 pH	24.17 °C	226.17 µS/cm	1.09 mg/L	5.13 NTU	69.2 mV		250.00 ml/min
8/23/2018 1:45 PM	01:55	6.46 pH	24.53 °C	206.80 µS/cm	0.84 mg/L	4.01 NTU	80.6 mV		250.00 ml/min

Samples

Sample ID:	Description:
PFAS0818-SiteW	PFAS @ 14:30

Low-Flow Test Report:

Test Date / Time: 8/23/2018 1:57:22 PM
Project: Chemours-montague
Operator Name: H. Thiel; B. Netcott

Location Name: IW-09-140 **Well Diameter: 4 in** **Casing Type: Steel** **Screen Length: 20 ft** **Top of Screen: 120 ft** **Total Depth: 140 ft**	**Pump Type: Bladder** **Tubing Type: Hdpe** **Estimated Total Volume Pumped: 3 gal** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min**	**Instrument Used: Aqua TROLL 600 Vented** **Serial Number: 588244**

Test Notes:

Weather Conditions:
70s, sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.03	
8/23/2018 1:57 PM	00:00	8.67 pH	18.00 °C	366.69 µS/cm	3.34 mg/L	1.51 NTU	-58.8 mV		250.00 ml/min
8/23/2018 1:58 PM	00:49	8.76 pH	16.42 °C	369.09 µS/cm	4.71 mg/L	2.03 NTU	-121.0 mV		250.00 ml/min
8/23/2018 1:58 PM	01:10	8.80 pH	15.48 °C	368.13 µS/cm	3.39 mg/L	5.75 NTU	-146.4 mV		250.00 ml/min

Samples

Sample ID:	Description:
PFAS0818-IW-09-140	PFAS @ 15:00

Appendix B

Laboratory Reports from August 2018 Sampling

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Chemours Company FC, LLC
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

Report Date: August 31, 2018 12:15

Project: MTG - PFAS

Account #: 07032
Group Number: 1980331
PO Number: LBIO-67047
State of Sample Origin: MI

Electronic Copy To AECOM

Attn: Mike Aucoin

Respectfully Submitted,

Nancy Jean Bornholm
Principal Specialist

(717) 556-7250

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
PFAS0818-SiteW Water	08/23/2018 14:30	9771664
PFAS0818-BP-008-060 Water	08/23/2018 12:30	9771665
PFAS0818-BP-001-070 Water	08/23/2018 15:15	9771666
PFAS0818-MW-224-060 Water	08/23/2018 09:55	9771667
PFAS0818-NL-005-055 Water	08/23/2018 11:15	9771668
PFAS0818-IW-09-140 Water	08/23/2018 14:52	9771669
EB-082218-2 Water	08/23/2018 10:06	9771670
FB-082218-2 Water	08/23/2018 10:06	9771671

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Project Name: MTG - PFAS
ELLE Group #: 1980331

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

EPA 537 Version 1.1 Modified, LC/MS/MS Miscellaneous

Sample #s: 9771667

The recovery for labeled compound used as extraction standards is outside of QC acceptance limits as noted on the QC Summary due to the matrix of the sample.

Sample #s: 9771668, 9771669, 9771671

The recovery for labeled compound used as extraction standards is outside of QC acceptance limits as noted on the QC Summary.

Batch #: 18238005 (Sample number(s): 9771664-9771671)

The recovery(ies) for one or more surrogates exceeded the acceptance window indicating a positive bias for sample(s) 9771667, 9771668, 9771669, 9771671, LCS, LCSD

Sample Description: **PFAS0818-SiteW Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/24/2018 12:30
Collection Date/Time: 08/23/2018 14:30

The Chemours Company FC, LLC
ELLE Sample #: WW 9771664
ELLE Group #: 1980331
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.8 U	2.8	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.6 U	5.6	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.9 U	1.9	1
14473	NEtFOSAA	2991-50-6	2.8 U	2.8	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.8 U	2.8	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.93 U	0.93	1
14473	Perfluorobutanoic acid	375-22-4	5.6 U	5.6	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.9 U	1.9	1
14473	Perfluorodecanoic acid	335-76-2	1.9 U	1.9	1
14473	Perfluorododecanoic acid	307-55-1	1.9 U	1.9	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.9 U	1.9	1
14473	Perfluoroheptanoic acid	375-85-9	0.93 U	0.93	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.9 U	1.9	1
14473	Perfluorohexanoic acid	307-24-4	1.9 U	1.9	1
14473	Perfluorononanesulfonic Acid	474511-07-4	1.9 U	1.9	1
14473	Perfluorononanoic acid	375-95-1	1.9 U	1.9	1
14473	Perfluorooctanesulfonamide	754-91-6	2.8 U	2.8	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.9 U	1.9	1
14473	Perfluorooctanoic acid	335-67-1	0.93 U	0.93	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.9 U	1.9	1
14473	Perfluoropentanoic acid	2706-90-3	5.6 U	5.6	1
14473	Perfluorotetradecanoic acid	376-06-7	0.93 U	0.93	1
14473	Perfluorotridecanoic acid	72629-94-8	0.93 U	0.93	1
14473	Perfluoroundecanoic acid	2058-94-8	1.9 U	1.9	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18238005	08/28/2018 20:34	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18238005	08/27/2018 08:20	Courtney J Fatta	1

Sample Description: **PFAS0818-BP-008-060 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/24/2018 12:30
Collection Date/Time: 08/23/2018 12:30

The Chemours Company FC, LLC
ELLE Sample #: WW 9771665
ELLE Group #: 1980331
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.6 U	2.6	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.3 U	5.3	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.8 U	1.8	1
14473	NEtFOSAA	2991-50-6	2.6 U	2.6	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.6 U	2.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.88 U	0.88	1
14473	Perfluorobutanoic acid	375-22-4	5.3 U	5.3	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.8 U	1.8	1
14473	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14473	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.8 U	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	0.88 U	0.88	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.8 U	1.8	1
14473	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14473	Perfluorononanesulfonic Acid	474511-07-4	1.8 U	1.8	1
14473	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.6 U	2.6	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.8 U	1.8	1
14473	Perfluorooctanoic acid	335-67-1	0.88 U	0.88	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.8 U	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	5.3 U	5.3	1
14473	Perfluorotetradecanoic acid	376-06-7	0.88 U	0.88	1
14473	Perfluorotridecanoic acid	72629-94-8	0.88 U	0.88	1
14473	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18238005	08/28/2018 20:43	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18238005	08/27/2018 08:20	Courtney J Fatta	1

Sample Description: **PFAS0818-BP-001-070 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/24/2018 12:30
Collection Date/Time: 08/23/2018 15:15

The Chemours Company FC, LLC
ELLE Sample #: WW 9771666
ELLE Group #: 1980331
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.8 U	2.8	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.6 U	5.6	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.9 U	1.9	1
14473	NEtFOSAA	2991-50-6	2.8 U	2.8	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.8 U	2.8	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.93 U	0.93	1
14473	Perfluorobutanoic acid	375-22-4	5.6 U	5.6	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.9 U	1.9	1
14473	Perfluorodecanoic acid	335-76-2	1.9 U	1.9	1
14473	Perfluorododecanoic acid	307-55-1	1.9 U	1.9	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.9 U	1.9	1
14473	Perfluoroheptanoic acid	375-85-9	0.93 U	0.93	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.9 U	1.9	1
14473	Perfluorohexanoic acid	307-24-4	1.9 U	1.9	1
14473	Perfluorononanesulfonic Acid	474511-07-4	1.9 U	1.9	1
14473	Perfluorononanoic acid	375-95-1	1.9 U	1.9	1
14473	Perfluorooctanesulfonamide	754-91-6	2.8 U	2.8	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.9 U	1.9	1
14473	**Perfluorooctanoic acid**	335-67-1	**1.1**	0.93	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.9 U	1.9	1
14473	Perfluoropentanoic acid	2706-90-3	5.6 U	5.6	1
14473	Perfluorotetradecanoic acid	376-06-7	0.93 U	0.93	1
14473	Perfluorotridecanoic acid	72629-94-8	0.93 U	0.93	1
14473	Perfluoroundecanoic acid	2058-94-8	1.9 U	1.9	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18238005	08/28/2018 20:52	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18238005	08/27/2018 08:20	Courtney J Fatta	1

Sample Description: PFAS0818-MW-224-060 Water
PFAS 2018 AUG

Project Name: MTG - PFAS

Submittal Date/Time: 08/24/2018 12:30
Collection Date/Time: 08/23/2018 09:55

The Chemours Company FC, LLC
ELLE Sample #: WW 9771667
ELLE Group #: 1980331
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**		**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	3.7	U	3.7	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	7.5	U	7.5	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	2.5	U	2.5	1
14473	NEtFOSAA	2991-50-6	3.7	U	3.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.					
14473	NMeFOSAA	2355-31-9	3.7	U	3.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.					
14473	Perfluorobutanesulfonic Acid	375-73-5	1.2	U	1.2	1
14473	**Perfluorobutanoic acid**	375-22-4	**13**		7.5	1
14473	Perfluorodecanesulfonic Acid	335-77-3	2.5	U	2.5	1
14473	Perfluorodecanoic acid	335-76-2	2.5	U	2.5	1
14473	Perfluorododecanoic acid	307-55-1	2.5	U	2.5	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	2.5	U	2.5	1
14473	Perfluoroheptanoic acid	375-85-9	1.2	U	1.2	1
14473	Perfluorohexanesulfonic Acid	355-46-4	2.5	U	2.5	1
14473	Perfluorohexanoic acid	307-24-4	2.5	U	2.5	1
14473	Perfluorononanesulfonic Acid	474511-07-4	2.5	U	2.5	1
14473	Perfluorononanoic acid	375-95-1	2.5	U	2.5	1
14473	Perfluorooctanesulfonamide	754-91-6	3.7	U	3.7	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	2.5	U	2.5	1
14473	**Perfluorooctanoic acid**	335-67-1	**1.7**		1.2	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	2.5	U	2.5	1
14473	Perfluoropentanoic acid	2706-90-3	7.5	U	7.5	1
14473	Perfluorotetradecanoic acid	376-06-7	1.2	U	1.2	1
14473	Perfluorotridecanoic acid	72629-94-8	1.2	U	1.2	1
14473	Perfluoroundecanoic acid	2058-94-8	2.5	U	2.5	1

The recovery for labeled compound used as extraction standards is outside of QC acceptance limits as noted on the QC Summary due to the matrix of the sample.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18238005	08/28/2018 21:01	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18238005	08/27/2018 08:20	Courtney J Fatta	1

Sample Description: PFAS0818-NL-005-055 Water
PFAS 2018 AUG

Project Name: MTG - PFAS

Submittal Date/Time: 08/24/2018 12:30
Collection Date/Time: 08/23/2018 11:15

The Chemours Company FC, LLC
ELLE Sample #: WW 9771668
ELLE Group #: 1980331
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.7 U	2.7	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.4 U	5.4	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.8 U	1.8	1
14473	NEtFOSAA	2991-50-6	2.7 U	2.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.7 U	2.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.89 U	0.89	1
14473	Perfluorobutanoic acid	375-22-4	5.4 U	5.4	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.8 U	1.8	1
14473	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14473	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.8 U	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	0.89 U	0.89	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.8 U	1.8	1
14473	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14473	Perfluorononanesulfonic Acid	474511-07-4	1.8 U	1.8	1
14473	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.7 U	2.7	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.8 U	1.8	1
14473	Perfluorooctanoic acid	335-67-1	0.89 U	0.89	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.8 U	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	5.4 U	5.4	1
14473	Perfluorotetradecanoic acid	376-06-7	0.89 U	0.89	1
14473	Perfluorotridecanoic acid	72629-94-8	0.89 U	0.89	1
14473	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

The recovery for labeled compound used as extraction standards is outside of QC acceptance limits as noted on the QC Summary.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18238005	08/28/2018 21:28	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18238005	08/27/2018 08:20	Courtney J Fatta	1

Sample Description: **PFAS0818-IW-09-140 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/24/2018 12:30
Collection Date/Time: 08/23/2018 14:52

The Chemours Company FC, LLC
ELLE Sample #: WW 9771669
ELLE Group #: 1980331
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.7 U	2.7	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.4 U	5.4	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.8 U	1.8	1
14473	NEtFOSAA	2991-50-6	2.7 U	2.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.7 U	2.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.90 U	0.90	1
14473	**Perfluorobutanoic acid**	375-22-4	**7.6**	5.4	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.8 U	1.8	1
14473	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14473	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.8 U	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	0.90 U	0.90	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.8 U	1.8	1
14473	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14473	Perfluorononanesulfonic Acid	474511-07-4	1.8 U	1.8	1
14473	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.7 U	2.7	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.8 U	1.8	1
14473	**Perfluorooctanoic acid**	335-67-1	**1.6**	0.90	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.8 U	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	5.4 U	5.4	1
14473	Perfluorotetradecanoic acid	376-06-7	0.90 U	0.90	1
14473	Perfluorotridecanoic acid	72629-94-8	0.90 U	0.90	1
14473	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

The recovery for labeled compound used as extraction standards is outside of QC acceptance limits as noted on the QC Summary.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18238005	08/28/2018 21:37	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18238005	08/27/2018 08:20	Courtney J Fatta	1

Sample Description: **EB-082218-2 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/24/2018 12:30
Collection Date/Time: 08/23/2018 10:06

The Chemours Company FC, LLC
ELLE Sample #: WW 9771670
ELLE Group #: 1980331
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.8 U	2.8	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.6 U	5.6	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.9 U	1.9	1
14473	NEtFOSAA	2991-50-6	2.8 U	2.8	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.8 U	2.8	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.93 U	0.93	1
14473	Perfluorobutanoic acid	375-22-4	5.6 U	5.6	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.9 U	1.9	1
14473	Perfluorodecanoic acid	335-76-2	1.9 U	1.9	1
14473	Perfluorododecanoic acid	307-55-1	1.9 U	1.9	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.9 U	1.9	1
14473	Perfluoroheptanoic acid	375-85-9	0.93 U	0.93	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.9 U	1.9	1
14473	Perfluorohexanoic acid	307-24-4	1.9 U	1.9	1
14473	Perfluorononanesulfonic Acid	474511-07-4	1.9 U	1.9	1
14473	Perfluorononanoic acid	375-95-1	1.9 U	1.9	1
14473	Perfluorooctanesulfonamide	754-91-6	2.8 U	2.8	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.9 U	1.9	1
14473	Perfluorooctanoic acid	335-67-1	0.93 U	0.93	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.9 U	1.9	1
14473	Perfluoropentanoic acid	2706-90-3	5.6 U	5.6	1
14473	Perfluorotetradecanoic acid	376-06-7	0.93 U	0.93	1
14473	Perfluorotridecanoic acid	72629-94-8	0.93 U	0.93	1
14473	Perfluoroundecanoic acid	2058-94-8	1.9 U	1.9	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18238005	08/30/2018 02:32	Jason W Knight	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18238005	08/27/2018 08:20	Courtney J Fatta	1

Sample Description: **FB-082218-2 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/24/2018 12:30
Collection Date/Time: 08/23/2018 10:06

The Chemours Company FC, LLC
ELLE Sample #: WW 9771671
ELLE Group #: 1980331
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.7 U	2.7	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.4 U	5.4	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.8 U	1.8	1
14473	NEtFOSAA	2991-50-6	2.7 U	2.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.7 U	2.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.90 U	0.90	1
14473	Perfluorobutanoic acid	375-22-4	5.4 U	5.4	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.8 U	1.8	1
14473	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14473	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.8 U	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	0.90 U	0.90	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.8 U	1.8	1
14473	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14473	Perfluorononanesulfonic Acid	474511-07-4	1.8 U	1.8	1
14473	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.7 U	2.7	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.8 U	1.8	1
14473	Perfluorooctanoic acid	335-67-1	0.90 U	0.90	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.8 U	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	5.4 U	5.4	1
14473	Perfluorotetradecanoic acid	376-06-7	0.90 U	0.90	1
14473	Perfluorotridecanoic acid	72629-94-8	0.90 U	0.90	1
14473	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

The recovery for labeled compound used as extraction standards is outside of QC acceptance limits as noted on the QC Summary.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18238005	08/28/2018 21:55	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18238005	08/27/2018 08:20	Courtney J Fatta	1

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Quality Control Summary

Client Name: The Chemours Company FC, LLC Group Number: 1980331
Reported: 08/31/2018 12:15

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result		LOQ
	ng/l		ng/l
Batch number: 18238005	Sample number(s): 9771664-9771671		
4:2 Fluorotelomersulfonate	3.0	U	3.0
8:2 Fluorotelomersulfonate	6.0	U	6.0
6:2-Fluorotelomersulfonic Acid	2.0	U	2.0
NEtFOSAA	3.0	U	3.0
NMeFOSAA	3.0	U	3.0
Perfluorobutanesulfonic Acid	1.0	U	1.0
Perfluorobutanoic acid	6.0	U	6.0
Perfluorodecanesulfonic Acid	2.0	U	2.0
Perfluorodecanoic acid	2.0	U	2.0
Perfluorododecanoic acid	2.0	U	2.0
Perfluoroheptanesulfonic Acid	2.0	U	2.0
Perfluoroheptanoic acid	1.0	U	1.0
Perfluorohexanesulfonic Acid	2.0	U	2.0
Perfluorohexanoic acid	2.0	U	2.0
Perfluorononanesulfonic Acid	2.0	U	2.0
Perfluorononanoic acid	2.0	U	2.0
Perfluorooctanesulfonamide	3.0	U	3.0
Perfluorooctanesulfonic Acid	2.0	U	2.0
Perfluorooctanoic acid	1.0	U	1.0
Perfluoropentanesulfonic Acid	2.0	U	2.0
Perfluoropentanoic acid	6.0	U	6.0
Perfluorotetradecanoic acid	1.0	U	1.0
Perfluorotridecanoic acid	1.0	U	1.0
Perfluoroundecanoic acid	2.0	U	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 18238005	Sample number(s): 9771664-9771671								
4:2 Fluorotelomersulfonate	14.94	14.13	14.94	14.51	95	97	82-152	3	30
8:2 Fluorotelomersulfonate	15.33	14.77	15.33	16.57	96	108	66-148	11	30
6:2-Fluorotelomersulfonic Acid	15.17	16.83	15.17	16.78	111	111	66-155	0	30
NEtFOSAA	5.44	4.70	5.44	4.62	86	85	55-169	2	30
NMeFOSAA	5.44	5.58	5.44	6.01	103	111	62-167	8	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: The Chemours Company FC, LLC
Group Number: 1980331
Reported: 08/31/2018 12:15

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluorobutanesulfonic Acid	4.81	4.60	4.81	4.67	95	97	73-128	2	30
Perfluorobutanoic acid	5.44	5.34	5.44	5.30	98	97	74-142	1	30
Perfluorodecanesulfonic Acid	5.24	4.99	5.24	4.90	95	93	60-135	2	30
Perfluorodecanoic acid	5.44	5.06	5.44	5.27	93	97	69-148	4	30
Perfluorododecanoic acid	5.44	5.08	5.44	5.89	93	108	75-136	15	30
Perfluoroheptanesulfonic Acid	5.18	4.97	5.18	4.73	96	91	64-135	5	30
Perfluoroheptanoic acid	5.44	5.52	5.44	5.50	101	101	76-140	0	30
Perfluorohexanesulfonic Acid	5.14	5.31	5.14	4.86	103	94	71-131	9	30
Perfluorohexanoic acid	5.44	5.68	5.44	5.63	104	104	75-135	1	30
Perfluorononanesulfonic Acid	5.22	5.32	5.22	5.04	102	97	66-133	5	30
Perfluorononanoic acid	5.44	5.55	5.44	5.17	102	95	72-148	7	30
Perfluorooctanesulfonamide	5.44	4.57	5.44	4.98	84	91	65-164	9	30
Perfluorooctanesulfonic Acid	5.20	5.22	5.20	5.36	100	103	67-138	3	30
Perfluorooctanoic acid	5.44	5.55	5.44	5.86	102	108	72-138	6	30
Perfluoropentanesulfonic Acid	5.10	5.17	5.10	5.35	101	105	76-127	3	30
Perfluoropentanoic acid	5.44	5.32	5.44	5.34	98	98	74-134	0	30
Perfluorotetradecanoic acid	5.44	5.42	5.44	5.79	100	106	74-135	7	30
Perfluorotridecanoic acid	5.44	5.64	5.44	5.72	104	105	61-145	1	30
Perfluoroundecanoic acid	5.44	5.27	5.44	5.26	97	97	75-146	0	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PFAS - MI DEQ List
Batch number: 18238005

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
9771664	109	112	116	108	107	117
9771665	106	112	109	108	111	108
9771666	119	122	122	115	120	121
9771667	128*	217*	261*	297*	123	132*
9771668	122	132	127	122	121	126
9771669	114	123	130	147	104	116
9771671	126*	134	127	114	129	129*
Blank	111	116	112	95	114	113
LCS	116	126	116	115	121	123
LCSD	115	121	111	109	117	128*
Limits:	33-123	31-157	26-148	21-182	35-138	34-126

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Chemours Company FC, LLC
Reported: 08/31/2018 12:15

Group Number: 1980331

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PFAS - MI DEQ List
Batch number: 18238005

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
9771664	105	110	113	118	117	115
9771665	108	100	110	106	99	103
9771666	115	112	120	118	109	115
9771667	129*	234*	125*	131*	149*	127*
9771668	123	117	124*	118	122	127*
9771669	112	132	110	117	114	114
9771671	120	109	130*	125*	123	137*
Blank	114	107	113	120	119	112
LCS	121	115	122	124*	120	116
LCSD	119	112	122	113	119	119
Limits:	35-126	32-170	48-122	50-121	41-144	47-125

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
9771664	104	105	116	105	109	112
9771665	96	98	109	103	110	97
9771666	101	109	125	111	118	111
9771667	172*	107	133*	124	124	119
9771668	109	124	135*	115	120	124*
9771669	118	107	130*	118	127	110
9771671	126	132*	144*	138	142*	130*
Blank	102	105	117	115	115	114
LCS	106	104	115	111	123	116
LCSD	98	100	118	109	118	114
Limits:	27-164	30-127	30-128	30-142	39-130	26-119

	13C8-PFOSA	d7-NMePFOSAE	d3-NMePFOSA	d9-NEtPFOSAE	d5-NEtPFOSA
9771664	86	53	17	55	18
9771665	106	91	67	85	73
9771666	124	99	59	93	56
9771667	105	72	23	74	24
9771668	110	49	16	51	15
9771669	89	45	20	45	20
9771671	122	72	26	70	22
Blank	116	104	90	102	86
LCS	119	106	103	100	94
LCSD	118	107	88	104	89
Limits:	11-127	10-128	10-104	10-121	10-106

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Chemours Company FC, LLC
Reported: 08/31/2018 12:15

Group Number: 1980331

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PFAS - MI DEQ List
Batch number: 18238005

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
9771670	100	97	94	92	99	98
Limits:	33-123	31-157	26-148	21-182	35-138	34-126

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
9771670	98	92	97	101	101	102
Limits:	35-126	32-170	48-122	50-121	41-144	47-125

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
9771670	99	90	83	122	57	100
Limits:	27-164	30-127	30-128	30-142	39-130	26-119

	13C8-PFOSA
9771670	89
Limits:	11-127

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Analysis Request / Environmental Services Chain of Custody

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A-07032

For Eurofins Lancaster Laboratories Use Only
Group No.: 1980331 Sample Nos.: 977160(4-71
Acc't: 07032 SF: 309143 SCR No.: 229837 Cooler No.:
Cooler Temperature upon receipt: 6.9 °C Container No.: 1

39063

Facility Name: Montague	Project Manager: Bracken Netcott
Facility Contact: George Gregory	Facility Contact Phone No.: 231-894-4012
Facility Address: Chemours Montague	Job No.: 77201000-WH06507046
6270 Wilkes Road	Release No.:
Montague MI 49437	PO Number: LBIO-67047
Sampler(s):	
Project Name: PFAS 2018 AUG	

Sample Identification	Date Collected	Time Collected	Matrix	Containers: Volume (ml)	Preserv	No.	Analyses Required: 24 PFAS (EPA 537 ver 1.1 mod)	Comments: / Condition upon receipt: INTACT
PFAS0818-SiteW	8/23/18	1430	WW	250	None	2	X	
PFAS0818-BP-008-060	"	1230	WW	250	None	2	X	
PFAS0818-BP-001-070	"	1515	WW	250	None	2	X	
PFAS0818-MW-250-054	8/22/18	1550	WW	250	None	2	X	not rec'd yet 8/27/18
PFAS0818-MW-224-060	8/23/18	0955	WW	250	None	2	X	
PFAS0818-MW-204-040	8/22/18	1710	WW	250	None	2	X	not rec'd yet 8/27/18
PFAS0818-NL-005-055	8/23/18	1115	WW	250	None	2	X	

Turnaround Time Requested (please circle): (Standard) RUSH Number of days: 8

Special Instructions:

Bottles Relinquished by: Chelsi West	Date 8-15-18	Time 19:51	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date: 8/24/18	Time: 12:30

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Copies: White copy should accompany samples to Lancaster Laboratories. The pink copy should be retained by the samplers.

Analysis Request / Environmental Services Chain of Custody

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A-7032

For Eurofins Lancaster Laboratories Use Only
Group No.: 180331 Sample Nos.: 97716604-71
Acc't: 07032 SF: 309143 SCR No.: 229837 Cooler No.:
Cooler Temperature upon receipt: 0.9 °C Container No.: 1

39064

Facility Name: Montague	Project Manager: Bracken Netcott
Facility Contact: George Gregory	Facility Contact Phone No.: 231-894-4012
Facility Address: Chemours Montague	Job No.: 77201000-WH06507046
6270 Wilkes Road	Release No.:
Montague MI 49437	PO Number: LBIO-67047
Sampler(s): B. Netcott; H. Thiel	
Project Name: PFAS 2018 AUG	

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	Analyses Required: 24 PFAS (EPA 537 ver 1.1 mod)	Comments:
~~PFAS0818-IW-09-140~~	~~8/22/18~~	~~1550~~	WW	250	None	2	X	Condition upon receipt: INTACT
PFAS0818-MW-213-062		1330	WW	250	None	2	X	not rec'd.
PFAS0818-MW-213-062		1330	WW	250	None	2	X	MS
PFAS0818-MW-213-062		1330	WW	250	None	2	X	Dupl
PFAS0818-MW-213-062-D		1330	WW	250	None	2	X	
PFAS0818-Outfall		1110	WW	250	None	2	X	YB 8/27/18
PFAS0818-IW-09-140	8/23/18	1452	WW	250	None	2	X	

Turnaround Time Requested (please circle): (Standard) RUSH Number of days: 8

Special Instructions:

	Date	Time		Date:	Time:
Bottles Relinquished by:	8/23/18		Bottles Received by:		
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date: 8.24.18	Time: 12:30

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Analysis Request / Environmental Services Chain of Custody

A-7032

For Eurofins Lancaster Laboratories Use Only
Group No.: 1980331 Sample Nos.: 9771609-71
Acc't: 07032 SF: 309143 SCR No.: 229837 Cooler No.:
Cooler Temperature upon receipt: 0.9 °C Container No.: 1

39066

Facility Name: Montague	Project Manager: Bracken Netcott
Facility Contact: George Gregory	Facility Contact Phone No.: 231-894-4012
Facility Address: Chemours Montague	Job No.: 77201000-WH06507046
6270 Wilkes Road	Release No.:
Montague MI 49437	PO Number: LBIO-67047
Sampler(s):	
Project Name: PFAS 2018 AUG	

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	24 PFAS (EPA 537 ver 1.1 mod)
EB-082318-2	8-23-18	1006	WW	250	None	2	X
FB-082318-2	8-23-18	1006	WW	250	None	2	X

Analyses Required

Comments:

Condition upon receipt: INTACT

Turnaround Time Requested (please circle) : (Standard) RUSH Number of days: 8

Special Instructions:

Bottles Relinquished by:	Date 8-23-18	Time 900	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date: 8/24/18	Time: 12:30

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Sample Administration Receipt Documentation Log

Doc Log ID: 225184

Group Number(s): 1980331

Client: Montague

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	08/24/2018 12:30
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	MI		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	Yes		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Wanita Curry (14057) at 17:57 on 08/24/2018

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	32170023	0.9	IR	Wet	Y	Loose/Bag	N

Missing Sample Details

Sample ID on COC	Comments
PFAS0818-MW-250-054	
PFAS0818-MW-204-040	
PFAS0818-MW-213-062	
PFAS0818-MW-213-062MS	
PFAS0818-MW-213-062DUPL	
PFAS0818-MW-213-062-D	
PFAS0818-Outfall	
EB-082318-2	
FB-082318-2	

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Chemours Company FC, LLC
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

Report Date: September 07, 2018 16:01

Project: MTG - PFAS

Account #: 07032
Group Number: 1981023
PO Number: LBIO-67047
State of Sample Origin: MI

Electronic Copy To AECOM

Attn: Mike Aucoin

Respectfully Submitted,

Nancy Jean Bornholm
Principal Specialist

(717) 556-7250

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
PFAS0818-MW-250-054 Water	08/22/2018 15:50	9775200
PFAS0818-MW-204-040 Water	08/22/2018 17:10	9775201
PFAS0818-MW-213-062 Water	08/22/2018 13:30	9775202
PFAS0818-MW-213-062 MS Water	08/22/2018 13:30	9775203
PFAS0818-MW-213-062 Dupl Water	08/22/2018 13:30	9775204
PFAS0818-MW-213-062-D Water	08/22/2018 13:30	9775205
PFAS0818-Outfall Water	08/22/2018 11:10	9775206
EB-082218-1 Water	08/22/2018 17:20	9775207
FB-082218-1 Water	08/22/2018 17:00	9775208

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Project Name: MTG - PFAS
ELLE Group #: 1981023

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: **PFAS0818-MW-250-054 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/28/2018 10:00
Collection Date/Time: 08/22/2018 15:50

The Chemours Company FC, LLC
ELLE Sample #: WW 9775200
ELLE Group #: 1981023
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**		**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	3.0	U	3.0	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	6.0	U	6.0	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	2.0	U	2.0	1
14473	NEtFOSAA	2991-50-6	3.0	U	3.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.					
14473	NMeFOSAA	2355-31-9	3.0	U	3.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.					
14473	Perfluorobutanesulfonic Acid	375-73-5	1.0	U	1.0	1
14473	**Perfluorobutanoic acid**	375-22-4	**6.0**		6.0	1
14473	Perfluorodecanesulfonic Acid	335-77-3	2.0	U	2.0	1
14473	Perfluorodecanoic acid	335-76-2	2.0	U	2.0	1
14473	Perfluorododecanoic acid	307-55-1	2.0	U	2.0	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	2.0	U	2.0	1
14473	Perfluoroheptanoic acid	375-85-9	1.0	U	1.0	1
14473	Perfluorohexanesulfonic Acid	355-46-4	2.0	U	2.0	1
14473	Perfluorohexanoic acid	307-24-4	2.0	U	2.0	1
14473	Perfluorononanesulfonic Acid	68259-12-1	2.0	U	2.0	1
14473	Perfluorononanoic acid	375-95-1	2.0	U	2.0	1
14473	Perfluorooctanesulfonamide	754-91-6	3.0	U	3.0	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	2.0	U	2.0	1
14473	**Perfluorooctanoic acid**	335-67-1	**1.2**		1.0	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	2.0	U	2.0	1
14473	Perfluoropentanoic acid	2706-90-3	6.0	U	6.0	1
14473	Perfluorotetradecanoic acid	376-06-7	1.0	U	1.0	1
14473	Perfluorotridecanoic acid	72629-94-8	1.0	U	1.0	1
14473	Perfluoroundecanoic acid	2058-94-8	2.0	U	2.0	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18241002	08/30/2018 19:22	Joshua P Trost	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18241002	08/29/2018 07:50	Courtney J Fatta	1

Sample Description: **PFAS0818-MW-204-040 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/28/2018 10:00
Collection Date/Time: 08/22/2018 17:10

The Chemours Company FC, LLC
ELLE Sample #: WW 9775201
ELLE Group #: 1981023
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.6 U	2.6	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.3 U	5.3	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.8 U	1.8	1
14473	NEtFOSAA	2991-50-6	2.6 U	2.6	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.6 U	2.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.88 U	0.88	1
14473	Perfluorobutanoic acid	375-22-4	5.3 U	5.3	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.8 U	1.8	1
14473	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14473	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.8 U	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	0.88 U	0.88	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.8 U	1.8	1
14473	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14473	Perfluorononanesulfonic Acid	68259-12-1	1.8 U	1.8	1
14473	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.6 U	2.6	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.8 U	1.8	1
14473	**Perfluorooctanoic acid**	335-67-1	**3.6**	0.88	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.8 U	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	5.3 U	5.3	1
14473	Perfluorotetradecanoic acid	376-06-7	0.88 U	0.88	1
14473	Perfluorotridecanoic acid	72629-94-8	0.88 U	0.88	1
14473	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18241002	08/30/2018 19:31	Joshua P Trost	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18241002	08/29/2018 07:50	Courtney J Fatta	1

Sample Description: **PFAS0818-MW-213-062 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/28/2018 10:00
Collection Date/Time: 08/22/2018 13:30

The Chemours Company FC, LLC
ELLE Sample #: WW 9775202
ELLE Group #: 1981023
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.7 U	2.7	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.5 U	5.5	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.8 U	1.8	1
14473	NEtFOSAA	2991-50-6	2.7 U	2.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.7 U	2.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.91 U	0.91	1
14473	Perfluorobutanoic acid	375-22-4	5.5 U	5.5	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.8 U	1.8	1
14473	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14473	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.8 U	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	0.91 U	0.91	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.8 U	1.8	1
14473	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14473	Perfluorononanesulfonic Acid	68259-12-1	1.8 U	1.8	1
14473	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.7 U	2.7	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.8 U	1.8	1
14473	**Perfluorooctanoic acid**	335-67-1	**4.9**	0.91	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.8 U	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	5.5 U	5.5	1
14473	Perfluorotetradecanoic acid	376-06-7	0.91 U	0.91	1
14473	Perfluorotridecanoic acid	72629-94-8	0.91 U	0.91	1
14473	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18241002	08/30/2018 19:40	Joshua P Trost	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18241002	08/29/2018 07:50	Courtney J Fatta	1

Sample Description: PFAS0818-MW-213-062 MS Water
PFAS 2018 AUG

Project Name: MTG - PFAS

Submittal Date/Time: 08/28/2018 10:00
Collection Date/Time: 08/22/2018 13:30

The Chemours Company FC, LLC
ELLE Sample #: WW 9775203
ELLE Group #: 1981023
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	**4:2 Fluorotelomersulfonate**	757124-72-4	**13**	2.7	1
14473	**8:2 Fluorotelomersulfonate**	39108-34-4	**15**	5.5	1
14473	**6:2-Fluorotelomersulfonic Acid**	27619-97-2	**16**	1.8	1
14473	**NEtFOSAA**	2991-50-6	**3.8**	2.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	**NMeFOSAA**	2355-31-9	**5.3**	2.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	**Perfluorobutanesulfonic Acid**	375-73-5	**5.2**	0.91	1
14473	**Perfluorobutanoic acid**	375-22-4	**9.6**	5.5	1
14473	**Perfluorodecanesulfonic Acid**	335-77-3	**5.1**	1.8	1
14473	**Perfluorodecanoic acid**	335-76-2	**5.6**	1.8	1
14473	**Perfluorododecanoic acid**	307-55-1	**5.7**	1.8	1
14473	**Perfluoroheptanesulfonic Acid**	375-92-8	**5.5**	1.8	1
14473	**Perfluoroheptanoic acid**	375-85-9	**6.2**	0.91	1
14473	**Perfluorohexanesulfonic Acid**	355-46-4	**5.4**	1.8	1
14473	**Perfluorohexanoic acid**	307-24-4	**6.3**	1.8	1
14473	**Perfluorononanesulfonic Acid**	68259-12-1	**5.2**	1.8	1
14473	**Perfluorononanoic acid**	375-95-1	**5.9**	1.8	1
14473	**Perfluorooctanesulfonamide**	754-91-6	**4.7**	2.7	1
14473	**Perfluorooctanesulfonic Acid**	1763-23-1	**5.9**	1.8	1
14473	**Perfluorooctanoic acid**	335-67-1	**11**	0.91	1
14473	**Perfluoropentanesulfonic Acid**	2706-91-4	**6.1**	1.8	1
14473	**Perfluoropentanoic acid**	2706-90-3	**6.3**	5.5	1
14473	**Perfluorotetradecanoic acid**	376-06-7	**5.7**	0.91	1
14473	**Perfluorotridecanoic acid**	72629-94-8	**6.3**	0.91	1
14473	**Perfluoroundecanoic acid**	2058-94-8	**5.0**	1.8	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18241002	08/30/2018 19:49	Joshua P Trost	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18241002	08/29/2018 07:50	Courtney J Fatta	1

Sample Description: **PFAS0818-MW-213-062 Dupl Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/28/2018 10:00
Collection Date/Time: 08/22/2018 13:30

The Chemours Company FC, LLC
ELLE Sample #: WW 9775204
ELLE Group #: 1981023
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.7 U	2.7	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.5 U	5.5	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.8 U	1.8	1
14473	NEtFOSAA	2991-50-6	2.7 U	2.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.7 U	2.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.91 U	0.91	1
14473	Perfluorobutanoic acid	375-22-4	5.5 U	5.5	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.8 U	1.8	1
14473	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14473	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.8 U	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	0.91 U	0.91	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.8 U	1.8	1
14473	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14473	Perfluorononanesulfonic Acid	68259-12-1	1.8 U	1.8	1
14473	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.7 U	2.7	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.8 U	1.8	1
14473	**Perfluorooctanoic acid**	335-67-1	**5.2**	0.91	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.8 U	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	5.5 U	5.5	1
14473	Perfluorotetradecanoic acid	376-06-7	0.91 U	0.91	1
14473	Perfluorotridecanoic acid	72629-94-8	0.91 U	0.91	1
14473	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18241002	08/30/2018 19:58	Joshua P Trost	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18241002	08/29/2018 07:50	Courtney J Fatta	1

Sample Description: **PFAS0818-MW-213-062-D Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/28/2018 10:00
Collection Date/Time: 08/22/2018 13:30

The Chemours Company FC, LLC
ELLE Sample #: WW 9775205
ELLE Group #: 1981023
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.8 U	2.8	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.6 U	5.6	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.9 U	1.9	1
14473	NEtFOSAA	2991-50-6	2.8 U	2.8	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.8 U	2.8	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.93 U	0.93	1
14473	Perfluorobutanoic acid	375-22-4	5.6 U	5.6	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.9 U	1.9	1
14473	Perfluorodecanoic acid	335-76-2	1.9 U	1.9	1
14473	Perfluorododecanoic acid	307-55-1	1.9 U	1.9	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.9 U	1.9	1
14473	Perfluoroheptanoic acid	375-85-9	0.93 U	0.93	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.9 U	1.9	1
14473	Perfluorohexanoic acid	307-24-4	1.9 U	1.9	1
14473	Perfluorononanesulfonic Acid	68259-12-1	1.9 U	1.9	1
14473	Perfluorononanoic acid	375-95-1	1.9 U	1.9	1
14473	Perfluorooctanesulfonamide	754-91-6	2.8 U	2.8	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.9 U	1.9	1
14473	**Perfluorooctanoic acid**	335-67-1	**5.4**	0.93	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.9 U	1.9	1
14473	Perfluoropentanoic acid	2706-90-3	5.6 U	5.6	1
14473	Perfluorotetradecanoic acid	376-06-7	0.93 U	0.93	1
14473	Perfluorotridecanoic acid	72629-94-8	0.93 U	0.93	1
14473	Perfluoroundecanoic acid	2058-94-8	1.9 U	1.9	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18241002	08/30/2018 20:07	Joshua P Trost	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18241002	08/29/2018 07:50	Courtney J Fatta	1

Sample Description: **PFAS0818-Outfall Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/28/2018 10:00
Collection Date/Time: 08/22/2018 11:10

The Chemours Company FC, LLC
ELLE Sample #: WW 9775206
ELLE Group #: 1981023
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**		**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	5.0	U	5.0	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	9.9	U	9.9	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	3.3	U	3.3	1
14473	NEtFOSAA	2991-50-6	5.0	U	5.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.					
14473	NMeFOSAA	2355-31-9	5.0	U	5.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.					
14473	Perfluorobutanesulfonic Acid	375-73-5	1.7	U	1.7	1
14473	**Perfluorobutanoic acid**	375-22-4	**12**		9.9	1
14473	Perfluorodecanesulfonic Acid	335-77-3	3.3	U	3.3	1
14473	Perfluorodecanoic acid	335-76-2	3.3	U	3.3	1
14473	Perfluorododecanoic acid	307-55-1	3.3	U	3.3	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	3.3	U	3.3	1
14473	Perfluoroheptanoic acid	375-85-9	1.7	U	1.7	1
14473	Perfluorohexanesulfonic Acid	355-46-4	3.3	U	3.3	1
14473	**Perfluorohexanoic acid**	307-24-4	**4.2**		3.3	1
14473	Perfluorononanesulfonic Acid	68259-12-1	3.3	U	3.3	1
14473	Perfluorononanoic acid	375-95-1	3.3	U	3.3	1
14473	Perfluorooctanesulfonamide	754-91-6	5.0	U	5.0	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	3.3	U	3.3	1
14473	Perfluorooctanoic acid	335-67-1	1.7	U	1.7	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	3.3	U	3.3	1
14473	Perfluoropentanoic acid	2706-90-3	9.9	U	9.9	1
14473	Perfluorotetradecanoic acid	376-06-7	1.7	U	1.7	1
14473	Perfluorotridecanoic acid	72629-94-8	1.7	U	1.7	1
14473	Perfluoroundecanoic acid	2058-94-8	3.3	U	3.3	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18241002	09/01/2018 13:00	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18241002	08/29/2018 07:50	Courtney J Fatta	1

Sample Description: **EB-082218-1 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/28/2018 10:00
Collection Date/Time: 08/22/2018 17:20

The Chemours Company FC, LLC
ELLE Sample #: WW 9775207
ELLE Group #: 1981023
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.7 U	2.7	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.4 U	5.4	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.8 U	1.8	1
14473	NEtFOSAA	2991-50-6	2.7 U	2.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.7 U	2.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.91 U	0.91	1
14473	Perfluorobutanoic acid	375-22-4	5.4 U	5.4	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.8 U	1.8	1
14473	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14473	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.8 U	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	0.91 U	0.91	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.8 U	1.8	1
14473	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14473	Perfluorononanesulfonic Acid	68259-12-1	1.8 U	1.8	1
14473	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.7 U	2.7	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.8 U	1.8	1
14473	Perfluorooctanoic acid	335-67-1	0.91 U	0.91	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.8 U	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	5.4 U	5.4	1
14473	Perfluorotetradecanoic acid	376-06-7	0.91 U	0.91	1
14473	Perfluorotridecanoic acid	72629-94-8	0.91 U	0.91	1
14473	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18245003	09/05/2018 23:57	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	2	18245003	09/02/2018 09:30	Danielle D McCully	1

Sample Description: **FB-082218-1 Water**
PFAS 2018 AUG

Project Name: **MTG - PFAS**

Submittal Date/Time: 08/28/2018 10:00
Collection Date/Time: 08/22/2018 17:00

The Chemours Company FC, LLC
ELLE Sample #: WW 9775208
ELLE Group #: 1981023
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		**ng/l**	**ng/l**	
14473	4:2 Fluorotelomersulfonate	757124-72-4	2.7 U	2.7	1
14473	8:2 Fluorotelomersulfonate	39108-34-4	5.4 U	5.4	1
14473	6:2-Fluorotelomersulfonic Acid	27619-97-2	1.8 U	1.8	1
14473	NEtFOSAA	2991-50-6	2.7 U	2.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMeFOSAA	2355-31-9	2.7 U	2.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	Perfluorobutanesulfonic Acid	375-73-5	0.91 U	0.91	1
14473	Perfluorobutanoic acid	375-22-4	5.4 U	5.4	1
14473	Perfluorodecanesulfonic Acid	335-77-3	1.8 U	1.8	1
14473	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14473	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic Acid	375-92-8	1.8 U	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	0.91 U	0.91	1
14473	Perfluorohexanesulfonic Acid	355-46-4	1.8 U	1.8	1
14473	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14473	Perfluorononanesulfonic Acid	68259-12-1	1.8 U	1.8	1
14473	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.7 U	2.7	1
14473	Perfluorooctanesulfonic Acid	1763-23-1	1.8 U	1.8	1
14473	Perfluorooctanoic acid	335-67-1	0.91 U	0.91	1
14473	Perfluoropentanesulfonic Acid	2706-91-4	1.8 U	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	5.4 U	5.4	1
14473	Perfluorotetradecanoic acid	376-06-7	0.91 U	0.91	1
14473	Perfluorotridecanoic acid	72629-94-8	0.91 U	0.91	1
14473	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	PFAS - MI DEQ List	EPA 537 Version 1.1 Modified	1	18241002	08/30/2018 20:43	Joshua P Trost	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	18241002	08/29/2018 07:50	Courtney J Fatta	1

Quality Control Summary

Client Name: The Chemours Company FC, LLC Group Number: 1981023
Reported: 09/07/2018 16:01

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result		LOQ
	ng/l		ng/l
Batch number: 18241002	Sample number(s): 9775200-9775206,9775208		
4:2 Fluorotelomersulfonate	3.0	U	3.0
8:2 Fluorotelomersulfonate	6.0	U	6.0
6:2-Fluorotelomersulfonic Acid	2.0	U	2.0
NEtFOSAA	3.0	U	3.0
NMeFOSAA	3.0	U	3.0
Perfluorobutanesulfonic Acid	1.0	U	1.0
Perfluorobutanoic acid	6.0	U	6.0
Perfluorodecanesulfonic Acid	2.0	U	2.0
Perfluorodecanoic acid	2.0	U	2.0
Perfluorododecanoic acid	2.0	U	2.0
Perfluoroheptanesulfonic Acid	2.0	U	2.0
Perfluoroheptanoic acid	1.0	U	1.0
Perfluorohexanesulfonic Acid	2.0	U	2.0
Perfluorohexanoic acid	2.0	U	2.0
Perfluorononanesulfonic Acid	2.0	U	2.0
Perfluorononanoic acid	2.0	U	2.0
Perfluorooctanesulfonamide	3.0	U	3.0
Perfluorooctanesulfonic Acid	2.0	U	2.0
Perfluorooctanoic acid	1.0	U	1.0
Perfluoropentanesulfonic Acid	2.0	U	2.0
Perfluoropentanoic acid	6.0	U	6.0
Perfluorotetradecanoic acid	1.0	U	1.0
Perfluorotridecanoic acid	1.0	U	1.0
Perfluoroundecanoic acid	2.0	U	2.0
Batch number: 18245003	Sample number(s): 9775207		
4:2 Fluorotelomersulfonate	3.0	U	3.0
8:2 Fluorotelomersulfonate	6.0	U	6.0
6:2-Fluorotelomersulfonic Acid	2.0	U	2.0
NEtFOSAA	3.0	U	3.0
NMeFOSAA	3.0	U	3.0
Perfluorobutanesulfonic Acid	1.0	U	1.0
Perfluorobutanoic acid	6.0	U	6.0
Perfluorodecanesulfonic Acid	2.0	U	2.0
Perfluorodecanoic acid	2.0	U	2.0
Perfluorododecanoic acid	2.0	U	2.0
Perfluoroheptanesulfonic Acid	2.0	U	2.0
Perfluoroheptanoic acid	1.0	U	1.0
Perfluorohexanesulfonic Acid	2.0	U	2.0

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Chemours Company FC, LLC
Reported: 09/07/2018 16:01

Group Number: 1981023

Method Blank (continued)

Analysis Name	Result ng/l		LOQ ng/l
Perfluorohexanoic acid	2.0	U	2.0
Perfluorononanesulfonic Acid	2.0	U	2.0
Perfluorononanoic acid	2.0	U	2.0
Perfluorooctanesulfonamide	3.0	U	3.0
Perfluorooctanesulfonic Acid	2.0	U	2.0
Perfluorooctanoic acid	1.0	U	1.0
Perfluoropentanesulfonic Acid	2.0	U	2.0
Perfluoropentanoic acid	6.0	U	6.0
Perfluorotetradecanoic acid	1.0	U	1.0
Perfluorotridecanoic acid	1.0	U	1.0
Perfluoroundecanoic acid	2.0	U	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 18241002	Sample number(s): 9775200-9775206,9775208								
4:2 Fluorotelomersulfonate	14.94	14.72	14.94	15.31	98	102	82-152	4	30
8:2 Fluorotelomersulfonate	15.33	16.41	15.33	15.56	107	102	66-148	5	30
6:2-Fluorotelomersulfonic Acid	15.17	16.43	15.17	18.59	108	123	66-155	12	30
NEtFOSAA	5.44	5.00	5.44	4.89	92	90	55-169	2	30
NMeFOSAA	5.44	5.24	5.44	5.53	96	102	62-167	5	30
Perfluorobutanesulfonic Acid	4.81	5.09	4.81	5.29	106	110	73-128	4	30
Perfluorobutanoic acid	5.44	5.89	5.44	5.85	108	108	74-142	1	30
Perfluorodecanesulfonic Acid	5.24	5.89	5.24	5.77	112	110	60-135	2	30
Perfluorodecanoic acid	5.44	6.32	5.44	6.07	116	112	69-148	4	30
Perfluorododecanoic acid	5.44	6.76	5.44	6.13	124	113	75-136	10	30
Perfluoroheptanesulfonic Acid	5.18	5.95	5.18	5.46	115	105	64-135	9	30
Perfluoroheptanoic acid	5.44	6.27	5.44	5.99	115	110	76-140	5	30
Perfluorohexanesulfonic Acid	5.14	5.41	5.14	5.82	105	113	71-131	7	30
Perfluorohexanoic acid	5.44	6.09	5.44	6.34	112	117	75-135	4	30
Perfluorononanesulfonic Acid	5.22	5.38	5.22	5.91	103	113	66-133	9	30
Perfluorononanoic acid	5.44	5.96	5.44	6.23	110	115	72-148	5	30
Perfluorooctanesulfonamide	5.44	5.08	5.44	5.47	93	101	65-164	7	30
Perfluorooctanesulfonic Acid	5.20	5.60	5.20	5.86	108	113	67-138	4	30
Perfluorooctanoic acid	5.44	6.28	5.44	6.03	115	111	72-138	4	30
Perfluoropentanesulfonic Acid	5.10	5.81	5.10	5.98	114	117	76-127	3	30
Perfluoropentanoic acid	5.44	6.14	5.44	6.28	113	115	74-134	2	30
Perfluorotetradecanoic acid	5.44	6.32	5.44	6.35	116	117	74-135	0	30
Perfluorotridecanoic acid	5.44	6.52	5.44	6.08	120	112	61-145	7	30
Perfluoroundecanoic acid	5.44	6.38	5.44	6.14	117	113	75-146	4	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: The Chemours Company FC, LLC Group Number: 1981023
Reported: 09/07/2018 16:01

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 18245003	Sample number(s): 9775207								
4:2 Fluorotelomersulfonate	14.94	14.56	14.94	14.3	97	96	82-152	2	30
8:2 Fluorotelomersulfonate	15.33	16.16	15.33	17.22	105	112	66-148	6	30
6:2-Fluorotelomersulfonic Acid	15.17	14.98	15.17	16.97	99	112	66-155	12	30
NEtFOSAA	5.44	5.03	5.44	4.64	92	85	55-169	8	30
NMeFOSAA	5.44	5.10	5.44	6.19	94	114	62-167	19	30
Perfluorobutanesulfonic Acid	4.81	4.94	4.81	4.67	103	97	73-128	6	30
Perfluorobutanoic acid	5.44	5.27	5.44	5.25	97	97	74-142	0	30
Perfluorodecanesulfonic Acid	5.24	4.82	5.24	5.00	92	95	60-135	4	30
Perfluorodecanoic acid	5.44	5.54	5.44	5.24	102	96	69-148	5	30
Perfluorododecanoic acid	5.44	4.96	5.44	5.60	91	103	75-136	12	30
Perfluoroheptanesulfonic Acid	5.18	5.20	5.18	4.73	100	91	64-135	9	30
Perfluoroheptanoic acid	5.44	5.39	5.44	5.42	99	100	76-140	0	30
Perfluorohexanesulfonic Acid	5.14	5.06	5.14	4.93	98	96	71-131	3	30
Perfluorohexanoic acid	5.44	5.49	5.44	5.48	101	101	75-135	0	30
Perfluorononanesulfonic Acid	5.22	4.76	5.22	4.74	91	91	66-133	0	30
Perfluorononanoic acid	5.44	5.16	5.44	5.27	95	97	72-148	2	30
Perfluorooctanesulfonamide	5.44	4.98	5.44	4.67	92	86	65-164	6	30
Perfluorooctanesulfonic Acid	5.20	4.63	5.20	5.03	89	97	67-138	8	30
Perfluorooctanoic acid	5.44	5.72	5.44	5.62	105	103	72-138	2	30
Perfluoropentanesulfonic Acid	5.10	4.99	5.10	4.83	98	95	76-127	3	30
Perfluoropentanoic acid	5.44	5.28	5.44	5.35	97	98	74-134	1	30
Perfluorotetradecanoic acid	5.44	5.92	5.44	5.64	109	104	74-135	5	30
Perfluorotridecanoic acid	5.44	5.84	5.44	5.43	107	100	61-145	7	30
Perfluoroundecanoic acid	5.44	5.78	5.44	5.41	106	99	75-146	7	30

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/l	MS Spike Added ng/l	MS Conc ng/l	MSD Spike Added ng/l	MSD Conc ng/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 18241002	Sample number(s): 9775200-9775206,9775208 UNSPK: 9775202									
4:2 Fluorotelomersulfonate	2.7 U	13.62	13.16			97		73-154		
8:2 Fluorotelomersulfonate	5.5 U	13.97	14.99			107		60-150		
6:2-Fluorotelomersulfonic Acid	1.8 U	13.83	15.92			115		70-130		
NEtFOSAA	2.7 U	4.96	3.80			77		49-159		
NMeFOSAA	2.7 U	4.96	5.25			106		58-157		
Perfluorobutanesulfonic Acid	0.428	4.39	5.19			108		73-134		
Perfluorobutanoic acid	3.99	4.96	9.61			113		58-155		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Chemours Company FC, LLC
Reported: 09/07/2018 16:01

Group Number: 1981023

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/l	MS Spike Added ng/l	MS Conc ng/l	MSD Spike Added ng/l	MSD Conc ng/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Perfluorodecanesulfonic Acid	1.8 U	4.78	5.07			106		41-148		
Perfluorodecanoic acid	1.8 U	4.96	5.63			114		73-142		
Perfluorododecanoic acid	1.8 U	4.96	5.72			115		76-136		
Perfluoroheptanesulfonic Acid	1.8 U	4.72	5.50			117		50-145		
Perfluoroheptanoic acid	0.531	4.96	6.19			114		67-137		
Perfluorohexanesulfonic Acid	0.395	4.69	5.45			108		73-129		
Perfluorohexanoic acid	0.527	4.96	6.27			116		70-130		
Perfluorononanesulfonic Acid	1.8 U	4.76	5.22			110		37-151		
Perfluorononanoic acid	1.8 U	4.96	5.95			120		70-130		
Perfluorooctanesulfonamide	2.7 U	4.96	4.69			95		70-130		
Perfluorooctanesulfonic Acid	0.616	4.74	5.92			112		48-154		
Perfluorooctanoic acid	4.94	4.96	10.79			118		48-160		
Perfluoropentanesulfonic Acid	1.8 U	4.65	6.11			131		78-152		
Perfluoropentanoic acid	5.5 U	4.96	6.28			127		53-161		
Perfluorotetradecanoic acid	0.91 U	4.96	5.75			116		78-133		
Perfluorotridecanoic acid	0.91 U	4.96	6.31			127		57-151		
Perfluoroundecanoic acid	1.8 U	4.96	5.01			101		66-137		

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: PFAS - MI DEQ List
Batch number: 18241002

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
9775200	81	84	88	115	81	81
9775201	79	88	87	109	74	79
9775202	85	93	92	115	87	90
9775203	84	91	91	113	84	83
9775204	81	87	89	105	86	87
9775205	90	100	96	123	98	89
9775206	79	107	137	97	75	80
9775208	84	87	82	102	85	87
Blank	92	92	90	87	89	96
LCS	83	84	79	79	84	88
LCSD	96	98	94	107	95	96
MS	84	91	91	113	84	83
Limits:	33-123	31-157	26-148	21-182	35-138	34-126

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Chemours Company FC, LLC
Reported: 09/07/2018 16:01

Group Number: 1981023

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: PFAS - MI DEQ List
Batch number: 18241002

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
9775200	82	94	84	80	81	82
9775201	79	90	76	80	77	81
9775202	87	109	91	89	85	92
9775203	84	99	83	80	80	85
9775204	88	95	83	86	80	81
9775205	93	108	90	91	94	93
9775206	81	113	78	78	77	80
9775208	88	94	87	85	85	86
Blank	99	92	94	92	88	94
LCS	86	80	84	84	78	81
LCSD	99	101	96	95	98	93
MS	84	99	83	80	80	85
Limits:	35-126	32-170	48-122	50-121	41-144	47-125

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
9775200	84	90	86	95	81	77
9775201	96	95	83	98	79	83
9775202	86	104	89	106	84	86
9775203	89	94	89	101	80	83
9775204	80	84	83	91	78	79
9775205	92	100	100	102	93	91
9775206	86	99	80	109	85	76
9775208	85	105	86	94	95	87
Blank	87	84	97	90	92	85
LCS	78	98	86	95	84	82
LCSD	94	110	99	117	99	100
MS	89	94	89	101	80	83
Limits:	27-164	30-127	30-128	30-142	39-130	26-119

	13C8-PFOSA
9775200	85
9775201	88
9775202	101
9775203	89
9775204	89
9775205	105
9775206	82
9775208	91
Blank	89
LCS	87

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Chemours Company FC, LLC
Reported: 09/07/2018 16:01

Group Number: 1981023

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: PFAS - MI DEQ List
Batch number: 18241002

	13C8-PFOSA
LCSD	100
MS	89
Limits:	11-127

Analysis Name: PFAS - MI DEQ List
Batch number: 18245003

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
9775207	84	84	84	83	83	82
Blank	87	87	87	95	87	85
LCS	89	88	86	94	87	87
LCSD	85	87	84	94	84	85
Limits:	33-123	31-157	26-148	21-182	35-138	34-126

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
9775207	82	103	88	81	84	85
Blank	87	109	88	84	92	83
LCS	91	107	91	89	95	92
LCSD	87	98	82	84	86	86
Limits:	35-126	32-170	48-122	50-121	41-144	47-125

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
9775207	106	67	68	87	51	71
Blank	96	90	85	87	90	84
LCS	94	96	93	103	92	88
LCSD	86	79	86	88	82	80
Limits:	27-164	30-127	30-128	30-142	39-130	26-119

	13C8-PFOSA
9775207	79
Blank	84
LCS	90
LCSD	80
Limits:	11-127

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
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Analysis Request / Environmental Services Chain of Custody

198023 8/28/18 9725200-08 1 of 1

A 07032

For Eurofins Lancaster Laboratories Use Only
Group No.: ~~1980331~~ Sample Nos.: ~~9771611-11~~ 8/28/18
Acct: 07032 SF: 309143 SCR No.: 229837 Cooler No.: 39063
Cooler Temperature upon receipt: 0.9 5.8 °C Container No.: 1

Facility Name: Montague	Project Manager: Bracken Netcott
Facility Contact: George Gregory	Facility Contact Phone No.: 231-894-4012
Facility Address: Chemours Montague	Job No.: 77201000-WH06507046
6270 Wilkes Road	Release No.:
Montague MI 49437	PO Number: LBIO-67047
Sampler(s):	
Project Name: PFAS 2018 AUG	

Analyses Required

Sample Identification	Date Collected	Time Collected	Matrix	Containers: Volume (ml)	Preserv	No.	24 PFAS (EPA 537 ver 1.1 mod)
PFAS0818-SiteW	8/23/18	1430	WW	250	None	2	X
PFAS0818-BP-008-060		1230	WW	250	None	2	X
PFAS0818-BP-001-070		1515	WW	250	None	2	X
PFAS0818-MW-250-054	8/22/18	1550	WW	250	None	2	X
PFAS0818-MW-224-060	8/23/18	0955	WW	250	None	2	X
PFAS0818-MW-204-040	8/22/18	1710	WW	250	None	2	X
PFAS0818-NL-005-055	8/23/18	1115	WW	250	None	2	X

Comments:

Condition upon receipt: intact INTACT

Turnaround Time Requested (please circle): (Standard) RUSH Number of days: 8

Special Instructions:

	Date	Time		Date:	Time:
Bottles Relinquished by: Chelsea West	8-15-18	19:51	Bottles Received by:		
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date: 8.24.18	Time: 12:30

8/28/18 1000

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Analysis Request / Environmental Services Chain of Custody

A-7032

For Eurofins Lancaster Laboratories Use Only
Group No.: ~~198033~~ Sample Nos.: ~~477464-71~~

Acc't: 07032 SF: 309143 SCR No.: 229837 Cooler No.:

Cooler Temperature upon receipt: 0.9 °C Container No.: 1

39064

Facility Name: Montague	Project Manager: Bracken Netcott
Facility Contact: George Gregory	Facility Contact Phone No.: 231-894-4012
Facility Address: Chemours Montague	Job No.: 77201000-WH06507046
6270 Wilkes Road	Release No.:
Montague MI 49437	PO Number: LBIO-67047
Sampler(s): B. Netcott; A. Thiel	
Project Name: PFAS 2018 AUG	

Sample Identification	Date Collected	Time Collected	Matrix	Containers: Volume (ml)	Preserv	No.	24 PFAS (EPA 537 ver 1.1 mod)	Comments
~~PFAS0818-IW-09-140~~	~~8/22/18~~	~~1550~~	~~WW~~	~~250~~	~~None~~	~~2~~	~~X~~	
PFAS0818-MW-213-062		1330	WW	250	None	2	X	
PFAS0818-MW-213-062		1330	WW	250	None	2	X	MS
PFAS0818-MW-213-062		1330	WW	250	None	2	X	Dupl
PFAS0818-MW-213-062-D		1330	WW	250	None	2	X	
PFAS0818-Outfall		1110	WW	250	None	2	X	
PFAS0818-IW-09-140	8/23/18	1452	WW	250	None	2	X	

Comments: intact

Condition upon receipt: INTACT

Turnaround Time Requested (please circle): (Standard) RUSH Number of days: 8

Special Instructions:

	Date	Time		Date	Time
Bottles Relinquished by:	8/23/18		Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:	8.24.18	12:30

8/28/18 100

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Analysis Request / Environmental Services Chain of Custody

A-7032

For Eurofins Lancaster Laboratories Use Only

Group No.: ~~1980337~~ Sample Nos.: ~~9771004-71~~ 9775200-08

Acc't: 07032 SF: 309143 SCR No.: 229837 Cooler No.: _____

Cooler Temperature upon receipt: 0.9 °C Container No.: 1

39065

Facility Name: Montague	Project Manager: Bracken Netcott
Facility Contact: George Gregory	Facility Contact Phone No.: 231-894-4012
Facility Address: Chemours Montague	Job No.: 77201000-WH06507046
6270 Wilkes Road	Release No.:
Montague MI 49437	PO Number: LBIO-67047
Sampler(s):	
Project Name: PFAS 2018 AUG	

Analyses Required

Comments: intact

Condition upon receipt: intact

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	24 PFAS (EPA 537 ver 1.1 mod)
EB-082218-1	8/22/18	1720	WW	250	None	2	X
FB-082218-1	↓	1700	WW	250	None	2	X

Turnaround Time Requested (please circle): (Standard) RUSH Number of days: 8

Special Instructions:

Bottles Relinquished by: Bracken Netcott	Date 8-22	Time 1900	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date: 8/24/18	Time: 12:30

9/29/18 COC

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Sample Administration Receipt Documentation Log

Doc Log ID: 225371

Group Number(s): 1981023

Client: Montague

PFAS 2018 AUG

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	08/28/2018 10:00
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	Yes		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Nicole Reiff (25684) at 11:01 on 08/28/2018

Samples Chilled Details: PFAS 2018 AUG

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	5.8	DT	Wet	Y	Loose	N

Missing Sample Details: PFAS 2018 AUG

Sample ID on COC	Comments
PFAS0818-SiteW	
PFAS0818-BP-008-060	
PFAS0818-MW-224-060	
PFAS0818-BP-001-070	
PFAS0818-NL-005-055	
PFAS0818-1W-09-140	

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.