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WWTP TABLE 3+ PFAS LOADING ASSESSMENT

Chemours Fayetteville Works

Prepared for

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ACRONYMS AND ABBREVIATIONS

BOD_5	5-day biochemical oxygen demand
CO Addendum	Addendum to Consent Order Paragraph 12
DVM	Data Verification Module
DQO	Data Quality Objectives
EIM	Environmental Information Management
ft	feet
ft bgs	feet below the ground surface
GPM	gallons per minute
HDPE	high-density polyethylene
HFPO-DA	hexafluoropropylene oxide dimer acid
IXM	Ion Exchange Membrane
MGD	millions of gallons per day
ng/kg	nanograms per kilogram
ng/L	nanograms per liter
NCCW	non-contact cooling water
NCDEQ	North Carolina Department of Environmental Quality
P11	Consent Order Paragraph 11
PEPA	perfluoroethoxypropyl carboxylic acid
PFMOAA	perfluoro-2-methoxyacetic acid
PFAS	per- and polyfluoroalkyl substances
PMDF	Polymer Manufacturing Development Facility
PMPA	perfluoromethoxypropyl carboxylic acid
PPA	Polymer Processing Aid
PVF	Polyvinylfluoride
RPD	relative percent differences
QA/QC	quality assurance/quality control
TAR	turn-around
µg/s	micrograms per second
WWTP	wastewater treatment plant

EXECUTIVE SUMMARY

This report was prepared by Geosyntec Consultants of NC, P.C. (Geosyntec) for The Chemours Company FC, LLC (Chemours) pursuant to the requirements of Paragraph 4(d) of the Addendum to Consent Order Paragraph 12 (CO Addendum) amongst Chemours, the North Carolina Department of Environmental Quality (NCDEQ), and Cape Fear River Watch. Prior investigations pursuant to Consent Order Paragraph 11 indicated elevated Table 3+ per- and polyfluoroalkyl substances[1] (PFAS) loadings at the wastewater treatment plant (WWTP) effluent (Location 8) and particularly one upstream location of the WWTP (Location 23A) when compared to the Cape Fear River intake water used at the facility at the Chemours Fayetteville Works, North Carolina site (the Facility).

The Facility is managed by Chemours, who operate a fluoroproduct manufacturing division and tenants Kuraray and DuPont operate separate manufacturing activities. The Kuraray and DuPont manufacturing activities and Power area generate wastewaters which are directed to the Facility's WWTP. Chemours manufacturing areas (PPA, Monomers, and IXM) collect PFAS manufacturing wastewater for offsite disposal and sanitary effluent is directed to the WWTP. With the exception of Chemours manufacturing process wastewaters, process and sanitary wastewaters are conveyed along process and sanitary wastewater conveyance networks to the WWTP. WWTP effluent is discharged via Outfall 001. The WWTP is presently undergoing a series of modifications and upgrades which will reduce the size of some of the equipment used.

Relying on data collected between April 2019 to April 2021 from two investigations focused on identifying sources of PFAS to the WWTP in June 2020 and March 2021 and other characterization investigations at the Facility, this assessment considered 193 sample results collected from 40 locations. Sample types included stormwater, sanitary wastewater, and combined non-process or non-contact cooling water (NCCW) and process wastewaters. Samples were collected from Kuraray, DuPont, Power, and Chemours areas; the WWTP; and other support areas at the facility. The measured concentrations from these samples were used to calculate a Table 3+ PFAS mass discharge for the separate flow / loading types to the WWTP which was compared to the median 2020 Cape Fear River Table 3+ PFAS mass discharge. The results of the analysis are presented in the table below.

[1] Table 3+ Method PFAS compounds are often related to operations at the Chemours Fayetteville Works Facility

Dry Weather Flow Mass Loading - Based on Median Table 3+ PFAS Concentrations -			
Flow / Loading Type	**Representative Flowrate (GPM)**	**Estimated Table 3+ PFAS Mass Discharge (µg/s)**	**Estimated Percentage of River Mass Loading (%)[1]**
Biosolids PFAS Desorption	-	15.5	0.16%
Sanitary	14	5.6	0.059%
WWTP Influent[2]	234	4.4	0.047%
Power	35	1.0	0.010%
Kuraray SentryGlas®	17	0.3	0.003%
DuPont PVF	94	0.3	0.003%
Kuraray Trosifol®	74	0.2	0.002%
DuPont Laboratory	0.35	0.1	0.001%
WWTP Effluent[3]	**234**	**20.0**	**0.21%**
Additional Wet Weather Loads			
Stormwater (average annual)[4]	**3.7**	**0.84 (0.058 – 2.5)**	**0.009%**

Notes:

1 - The Cape Fear River 2020 median Table 3+ PFAS mass discharge was 9,500 µg/s.

2 - The WWTP influent mass discharge estimate is based on concentration measurements at the influent and was not calculated by adding loads to the WWTP presented in the table.

3 - The WWTP effluent mass discharge estimate is based on concentration measurements at the effluent and represents the discharges exiting the WWTP.

4 - The estimated range of stormwater mass discharge was 0.058 to 2.5 µg/s.

The results indicate that as a whole, the WWTP effluent represents a minor loading from the Facility to the Cape Fear River. The WWTP represents only 0.21% of the total Table 3+ PFAS load in the Cape Fear River for the median Cape Fear River 2020 Table 3+ PFAS mass discharge. While the WWTP effluent loading itself to the Cape Fear River is minor, the loadings to the WWTP are categorized as either primary, secondary, or tertiary loadings. The primary loadings come from sanitary wastewater inflows and desorption of PFAS from biosolids in the waste activated sludge in the WWTP. The Sanitary wastewater Table 3+ PFAS loads are interpreted to originate primarily from Chemours Monomers IXM and PPA area washing machine wastewater. The washing machines are used to launder the protective suits used in fluoroproduct manufacturing areas. Meanwhile, biosolids preferentially sorb PFAS and act as a sink (i.e. a reservoir) for Table 3+ PFAS when high concentration influent events occur, such as discharge from a Chemours Area washing machine. Subsequently, it is estimated these biosolids act as a reservoir of Table 3+ PFAS that desorb back into the surrounding water as influent water concentrations decrease.

Secondary loadings were from stormwater flows to the WWTP with tertiary loadings from Kuraray, DuPont and Power process wastewater loadings. The source of Table 3+ PFAS loadings to the Kuraray Area sampling location 23A, a tertiary loading which was specifically identified by the CO Addendum, was interpreted to be historical PFAS present in the terracotta pipe. The Terracotta Pipe prior to November 29, 2017 conveyed fluoroproduct manufacturing process wastewater from the Chemours Monomers IXM area to the WWTP. These past flows are interpreted to have emplaced Table 3+ PFAS which contributed to past detections. The Terracotta Pipe was fully decommissioned by Chemours in April 2021. Kuraray flows sampled from a newly installed pipe were low in concentration and similar to Cape Fear River intake water.

The Terracotta Pipe decommissioning is a completed action that is anticipated to reduce Table 3+ PFAS loadings to the WWTP. This report describes an additional five proposed actions to reduce Table 3+ PFAS loads and subsequently evaluate post-action conditions:

- Direct Chemours Monomers IXM and PPA Area Washing Machine Effluent to Offsite Disposal. Directing this effluent offsite will reduce Table 3+ PFAS loadings to the sanitary network and subsequently the WWTP.
- Reduce Biosolids Volume and Consider Biosolids Transplant: The on-site biological wastewater treatment system and associated solids will be reduced over the next few years due to significant reduction in influent organic loading directed to the system from Kuraray. This reduction will require Chemours to remove a significant amount of biological solids and downsize the existing system. The modifications will begin in summer 2021 when the biological treatment aeration tank is planned to be downsized from 1.7 million gallons (current aeration tank) to 250,000 gallons (current pre-digester tank). Reducing the biosolids volume with the upcoming treatment plant modification will reduce the amount of biosolids available to both sorb and desorb Table 3+ PFAS.
- Continue to Operate Air Emission Abatement Controls: Air emission abatement controls over time will lead to reduce Table 3+ PFAS concentrations in stormwater, which will in turn lead to reduced stormwater Table 3+ PFAS loadings to the WWTP.
- DuPont Laboratory Process Wastewater: Though a low loading to the WWTP, concentrations were elevated from historical PFAS that may have been directed to the lift station when the Process Manufacturing Development Facility (PMDF) lab, now DuPont lab, supported the PMDF operations. The sump will be washed and rinsed.
- Assess WWTP Table 3+ PFAS through Consent Order paragraph 11(d) sampling program: Modifications to the WWTP are to be completed alongside the recommendations made above. Chemours will continue to assess WWTP influent and effluent concentrations and assess PFAS loading reductions as part of the Consent Order Paragraph 11 sampling program.

1. INTRODUCTION

This report was prepared by Geosyntec Consultants of NC, P.C. (Geosyntec) for The Chemours Company FC, LLC (Chemours) pursuant to the requirements of Paragraph 4(d) of the Addendum to Consent Order Paragraph 12 (CO Addendum) amongst Chemours, the North Carolina Department of Environmental Quality (NCDEQ), and Cape Fear River Watch. Prior investigations pursuant to Consent Order Paragraph 11 indicated elevated Table 3+ per- and polyfluoroalkyl substances (PFAS) loadings at the wastewater treatment plant (WWTP) effluent (Location 8) and particularly one upstream location of the WWTP (Location 23A) when compared to the Cape Fear River intake water used at the facility at the Chemours Fayetteville Works, North Carolina site (the Facility, **Figure 1**). A series of investigations were completed to assess any remaining significant loadings of Table 3+ PFAS[2] directed to Location 23A[3] (manhole upstream of the (WWTP) and Location 8[3] (WWTP effluent).

At the Facility, Chemours conducts manufacturing operations alongside tenants Kuraray and DuPont who operate separate manufacturing activities. The Kuraray and DuPont manufacturing activities, alongside supporting activities completed in the Power area, generate wastewaters which are directed to the Facility's WWTP. Chemours areas (PPA and Monomers and IXM areas) generate sanitary wastewater that is directed to the Facility's WWTP. Sanitary and process wastewaters are conveyed to the WWTP along the separate process and sanitary conveyance network shown in **Figure 2**. The treated wastewater is then discharged via WWTP effluent at Outfall 001. The WWTP is presently undergoing a series of major modifications and upgrades. Relying on data collected between April 2019 to April 2021, this report describes the present state of the WWTP and PFAS loadings to the WWTP and considers the future state of the WWTP. The report concludes by describing completed remedial actions and proposing additional remedial actions.

The remainder of this document is organized as follows:

- **Section 2 – Background:** describes the inputs to the WWTP and the WWTP configuration
- **Section 3 – Scope and Methods:** describes the sampling events executed to collect wastewater samples to characterize Table 3+ PFAS compounds
- **Section 4 – Results:** describes the results of the sampling program and mass loading assessment

[2] Table 3+ Method PFAS compounds are often related to operations at the Chemours Fayetteville Works Facility.
[3] Locations 23A and 8 refer to sample locations IDs used in the Consent Order Paragraph 11 reports. This location ID set is utilized here in this WWTP assessment report.

- **Section 5 – Data Assessment:** describes the interpretation of the results and identifies loadings of PFAS to Location 23A, the WWTP, and Location 8
- **Section 6 – Proposed and Completed Remedial Actions:** describes remedial actions completed and proposes additional remedial actions
- **Section 7 – References:** lists documents referenced in this report

2. BACKGROUND

This section describes the types of wastewater flows and Facility areas which contribute to these flows. The types of flows directed to the WWTP include:

- River Intake Water
- NCCW
- Process Wastewater generated from non-PFAS manufacturing activities and includes utility wastewater generated from the Power area
- Sanitary Wastewater
- Stormwater

These flows originate from manufacturing and manufacturing support areas at the Facility. Areas contributing either or both sanitary and process wastewater to the WWTP are listed below and shown in **Figure 1**:

- Chemours Monomers and Ion Exchange Membrane (IXM) Area (Sanitary only)
- Chemours Polymer Processing Aid (PPA) Area (Sanitary only)
- WWTP internal recycle streams and sanitary;
- Power Area
- DuPont Polyvinylfluoride (PVF) Leased Area
- DuPont Laboratory
- Construction Area
- Kuraray Trosifol® Leased Area
- Kuraray SentryGlas® Leased Area
- Kuraray Laboratory
- Construction Area

Each area generates sanitary wastewater that is directed to the WWTP while only the Kuraray, Power, and DuPont Areas currently discharge process wastewater to the WWTP. The composition of wastewaters from each area is shown in the table below. The following sub-sections describe

the different types of wastewater directed to the WWTP, the Facility Areas directing flows to the WWTP, and the present and planned future configuration of the WWTP.

	Sanitary Wastewater	Stormwater	Process Wastewater	NCCW
Chemours Monomers IXM	●	--	--	--
Chemours PPA	●	--	--	--
WWTP Area	●	●	--	--
Power[1]	●	●	●	--
DuPont PVF	●	●	●	--
DuPont Laboratory	--	--	●	--
Kuraray Trosifol®[2]	●	●	●	●
Kuraray SentryGlas®	●	--	●	●
Kuraray Laboratory	●	--	●	--
Construction Area[3]	●	--	--	--

Notes:

1 – Utility wastewater from the Power area is generated from the treatment of river intake water for use as NCCW, demineralized water and steam.

2 – The Kuraray Trosifol area stopped using and discharging NCCW to the WWTP in April 2021.

3 – The Construction Area is located in the south-west corner of the Facility and is used to stage equipment and materials for construction activities.

2.1 Wastewater Characterization

Wastewater streams to the WWTP are categorized into five types as described below.

2.1.1 Source Water

The Facility obtains water from two sources, purchased potable water from Bladen County and water drawn from the Cape Fear River. Purchased potable water supplies Facility sanitary needs (handwashing, etc.,) while water taken from the Cape Fear River is used to support manufacturing operations.

Water drawn from the Cape Fear River is treated at the Power Area for use as NCCW, filtered water, demineralized water, and steam by the manufacturing areas. The PFAS concentrations detected in the river intake water represents background PFAS concentrations that enter the Facility. Intake river water concentrations have been previously described and characterized in reports submitted to NCDEQ pursuant to Paragraph 11 of the Consent Order (Geosyntec, 2020a).

2.1.2 Non-Contact Cooling Water (NCCW)

NCCW is used to cool equipment in the manufacturing areas. This water does not come in contact with manufactured products. The majority of NCCW used at the Facility is not discharged to the WWTP but is rather directed along the Facility Conveyance Network to Outfall 002. At the Facility, only Kuraray operations discharge a portion of their NCCW usage to the WWTP; the much larger remainder is discharged to the Conveyance Network. Currently, NCCW is generated in the Kuraray SentryGlas® area and directed to the WWTP. The Kuraray Trosifol® area stopped using NCCW in April 2021.

2.1.3 Process Wastewater

Process wastewater directed to the WWTP is generated from non-PFAS manufacturing processes in the DuPont and Kurarayareas. Process wastewater from Chemours Monomers IXM and PPA is currently sent to offsite disposal and not the Facility WWTP. The Power area generates utility wastewater from the treatment of river intake water for use as NCCW, demineralized water and steam. Utility wastewater is directed to the WWTP.

2.1.4 Sanitary Wastewater

Sanitary wastewater is generated from manufacturing and support operations areas and directed through a separate sanitary piping network to the WWTP for treatment. Sanitary and process wastewaters combine in the influent sump to the WWTP. Sanitary water originates as potable water purchased from Bladen County. Sanitary wastewater also includes flows from Chemours PPA and Monomers IXM Area washing machines used to launder protective equipment.

2.1.5 Stormwater

A portion of WWTP flows include stormwater from Kuraray, DuPont, Power Areas, and the WWTP. This stormwater originates from outdoor trenches, dikes, and bermed areas where stormwater runoff is directed to the WWTP.

2.2 Manufacturing Areas

The manufacturing areas and the wastewater generated in each area is described in this subsection. A map of the manufacturing areas, wastewater conveyance network, and sample locations for wastewater discharges from each area is provided in **Figure 3.**

Chemours Monomers and IXM Area and PPA Area

The Chemours Monomers IXM and PPA areas direct sanitary wastewater to the WWTP.

Kuraray Leased Areas

Three separate Kuraray leased areas direct flows to the WWTP: SentryGlas®, Trosifol®, and the Kuraray Laboratory. Kuraray SentryGlas® discharges process wastewater, NCCW, and sanitary wastewater to the WWTP. The Kuraray Trosifol® area discharges process wastewater, sanitary wastewater, and some stormwater to the WWTP. The flowrate of wastewater from the Kuraray Trosifol® area used to calculate Table 3+ loadings to the WWTP includes NCCW since it reflects

the conditions present at the site prior to April 2021 when samples were collected that were used in the analysis. As reported in NPDES permit submittals, Kuraray does not use or manufacture Table 3+ PFAS (Chemours, 2019).

Prior to April 8, 2021, Kuraray Area process wastewater, stormwater, and NCCW flows were conveyed to the WWTP along the Terracotta Pipe. This pipe, until November 29, 2017, had also conveyed Chemours Monomers IXM process wastewater. Kuraray constructed a new high-density polyethylene (HDPE) pipe to convey these flows to the WWTP and Chemours decommissioned and abandoned the Terracotta Pipe.

DuPont Leased Area

From the DuPont Area process wastewaters (PVF Plant 1, PVF Plant 2, DuPont Laboratory), some stormwater and sanitary wastewaters are directed to the WWTP. As reported in NPDES permit submittals, DuPont does not use or manufacture Table 3+ PFAS (Chemours, 2019).

Power Area

The Power Area directs sanitary and utility wastewaters to the WWTP.

2.3 Wastewater Treatment Plant (WWTP) Configuration

The present WWTP is undergoing optimization modifications due to reduced flow rates from certain inputs. The table below summarizes the estimated present flows, as some modifications have been made to date, and the estimated future flows to the WWTP. These flows are based on a Facility-wide flow balance in 2020 and 2021. The following subsections describe the current and future WWTP configuration.

	Current Flows (GPM)
Sanitary Flows[1]	14
Kuraray Trosifol®[2]	74
Kuraray SentryGlas®	17
Kuraray Laboratory[3]	0.35
DuPont PVF	94
DuPont Laboratory[3]	0.35
Power	35
Stormwater[4]	3.7
Total	**238**

Notes:

1 - Sanitary wastewater flows are summed together from manufacturing areas combined and are excluded from the summations of flows from the areas in other rows of the table.

2 – Flowrate from Kuraray Trosifol® reflects conditions prior to April 2021 when NCCW was discharged to the WWTP from the area.

3 - Kuraray Laboratory and DuPont Laboratory flowrates are estimated to discharge 500 gallons per day.

4 - Stormwater flows are based on the annual average stormwater flows (based on historical precipitation data from a 15-year period of record) averaged over an entire year, which includes periods of dry weather. The derivation of stormwater flows is described later in this report.

MGD – million gallons per day

2.3.1 Current WWTP

The current WWTP is a biological conventional activated sludge wastewater treatment system designed to remove biochemical oxygen demand (measured as 5-day biological oxygen demand [BOD_5]). Combined wastewater collected at the concrete influent lift station (Location 22) from the manufacturing areas is pumped to an 850,000 gallon Equalization Basin complete with surface aerators and submerged mixers. The wastewater is pumped from the Equalization Basin to an aerated 250,000 gallon Pre-digester Tank where initial biological activity begins. Wastewater is pumped from the Pre-digester Tank to a 1,700,000 gallon Aeration Tank where biological activity continues. Fresh influent wastewater is mixed with activated sludge in the Aeration Tank to remove BOD_5 and consequently generates additional biomass. The Aeration Tank contents of wastewater and biomass is referred to as mixed liquor. The Aeration Tank is aerated by a diffused aeration system installed on the bottom of the tank. Basin activated sludge mixed liquor is directed onward to the 685,000 gallon main clarifier for separation of activated sludge from treated effluent.

Two other clarifiers are used as standby separation processes if required during maintenance of the main clarifier. Treated clarifier effluent is discharged onward to Location 8. Clarifier underflow is recirculated back to the Aeration Tank as recycled activated sludge while waste activated sludge is conditioned and pumped to a Sludge Press for dewatering. Dewatered sludge is disposed of offsite while press filtrate is recycled back to the Pre-digester Tank.

2.3.2 Future WWTP

The WWTP configuration is currently being modified as part of a first phase of modifications and is in the design stages of a planned significant second phase of modifications in 2021 and 2022. Recently, BOD_5 loading from the Kuraray processes has decreased significantly resulting in the activated sludge treatment system being oversized. Chemours is currently considering various WWTP upgrades that include physical/chemical treatment and biological treatment of process and sanitary effluent from the manufacturing areas. The modifications to the WWTP are currently in the conceptual design phase and Chemours is considering various biological treatment technologies and physical/chemical treatment to provide treatment for the WWTP. Due to the reduction in organic loading, the size of the future biological treatment system is expected to be smaller.

3. SCOPE AND METHODS

The data used in the assessment presented in this report were collected during several sampling events. The sequence, scope, and purpose of the investigations are shown in the table below and described in the following subsections. Parsons of NC conducted the field work and sampling activities described in this report.

Sampling Event	Period	Scope	Purpose
Consent Order Paragraph 11 Sampling	April 2019 to April 2021	Collect nine bimonthly samples from various flow pathways across the Facility	Characterize PFAS concentrations along Conveyance Network at Facility
Stormwater Assessment	June 5, 2019 and October 16, 2019	Collect stormwater samples Sitewide during storm events	Characterize stormwater PFAS concentrations and loadings
June 2020 Sampling Event	June 2020	Sample wastewater sources generated from the manufacturing areas, Power, and WWTP	Assess PFAS loadings to WWTP
March 2021 Sampling Event	March 2021	Sample wastewater sources generated from the manufacturing areas, Power and WWTP; including sanitary wastewater	Assess PFAS loadings to WWTP
Kuraray Process Piping Sampling Event	April 2021	Samples of process wastewater were collected from new lift stations located at the discharge of Kuraray SentryGlas® and Kuraray Laboratory	Assess PFAS in Kuraray process wastewater in new effluent pipe

3.1 Sampling Locations

This WWTP assessment considered 193 samples results collected from 40 locations. Sample types included stormwater, sanitary wastewater, and combined NCCW and process wastewaters. The samples collected which were considered in this report are summarized in the table below and described in more details in **Table 1.**

	No. Locations	No. Samples	Location IDs
Sanitary Flows	10	21	22-1, MH-1, MH-4,LS-1, MH-3, LS-2, MH-2, 23A-3-ACID, 23A-3-NOM, 24D-3-NOM
Kuraray Trosifol®	3	41	6A, 6B, 18
Kuraray SentryGlas®	1	1	23C-1
Kuraray Laboratory	3	12	23B, 23A-2, 23C-2
DuPont PVF	2	26	19A, 19B
DuPont Laboratory	1	3	LS-3
Power	8	15	18A-1A, 18A-2 18B, 18A-3A 18A-3B, 18A-3C, 18A 18A-1B
WWTP[1]	5	9	8, 22, AS-1 sludge AS-1 total, AS-1 filtered
River Water Intake	1	14	1
Terracotta Pipe	2	16	23A, 22-3
Stormwater	4	7	5, 40 13, 35
Total	**40**	**193**	

Notes:

1 - WWTP samples come from the influent, effluent, and aerobic basin. Three activated sludge samples were collected from the aerobic basin. Filtrate and solids from filtered activated sludge samples were also analyzed.

3.2 Sampling Events

3.2.1 Initial Characterization of PFAS in Process and Non-Process Wastewater Sampling

Pursuant to Consent Order Paragraph 11 (P11), Chemours completed bimonthly sampling of over 30 locations across the Facility to characterize PFAS in process and non-process wastewaters from April 2019 to August 2020. The investigation is summarized in quarterly reports submitted to the NCDEQ. The final report was submitted to the NCDEQ in December 2020 (Geosyntec, 2020a). Ongoing sampling continued as part of the P11 sampling program and includes samples collected

in October and November 2020 and February 2021 that will be reported to NCDEQ with subsequent P11 sampling reports. Only sample locations that discharged wastewater to the wastewater conveyance system and WWTP were considered in the analysis presented in this report.

3.2.2 June 2020 WWTP Sampling Event

Samples of various wastewater streams that are directed to the Terracotta Pipe and WWTP were collected in June 2020 to identify any loading of PFAS from locations not previously characterized during the initial characterization of PFAS loadings at the Facility (Geosyntec, 2020a). The samples collected in June 2020 and methods followed during the sampling event, including quality assurance / quality control (QA/QC) information, are described in Section 3.6. Samples collected in the June 2020 sampling event were analyzed by Eurofins TestAmerica (Eurofins) in Sacramento, CA.

3.2.3 March and April 2021 WWTP Sampling Event

A sampling event was conducted in March and April 2021 to repeat elements of the June 2020 sampling event and collect additional data of wastewater streams not previously characterized. The methods followed to collect the samples and QA/QC information are provided in Section 3.7. Samples were sent to Enthalpy Analytical (Enthalpy) in Wilmington, NC for analysis.

3.2.4 April 2021 Kuraray Effluent Pipe Sampling

Kuraray completed the installation of a new HDPE pipe in April 2021 to convey process effluent from the SentryGlas®, Trosifol®, and Kuraray Laboratory Areas to the WWTP influent sump. The piping replaced the historic Terracotta Pipe conveyance (including Location 23A) formerly shared with Monomers IXM process wastewater. Three different locations were sampled:

- SentryGlas® effluent lift station (Location 23C-1): representative of SentryGlas® process wastewater effluent only
- Kuraray Lab effluent lift station (Location 23C-2): representative of Kuraray Lab process wastewater effluent only
- Kuraray Trosifol® effluent (Location 18): representative of Trosifol® process wastewater effluent and stormwater directed to outdoor process trenches and sumps

3.2.5 Analytical Methods, Sample Packing, Shipping, and Field QA/QC Samples

The detailed information related to the analytical methods, sampling methods and protocol, sampling shipping, QA/QC information, and other information unique to each sampling event that provided data in this evaluation were consistent with methods described in the *Characterization of PFAS in Process and Non-Process Wastewater and Stormwater: Initial Characterization – Final Quarterly Report* (Geosyntec, 2020a).

3.3 Stormwater Assessment

PFAS loading to the WWTP due to stormwater runoff were estimated by modeling the stormwater flow volumes to the WWTP and using PFAS concentrations from stormwater samples collected near or within areas draining to the WWTP. Stormwater flows were modeled using the long-term continuous simulation hydrologic model that was developed for the Facility and described previously in the Engineering Report for the Stormwater Capture and Treatment System (Geosyntec, 2021). The model used fifteen years of rainfall data from January 1, 2006 to December 31, 2020. Drainage areas to the WWTP are listed below alongside the area-weighted impervious fractions for each area.[4] The values were developed using drainage area characteristics. The hydrologic model was not calibrated with measured flow data, consequently the flow values modeled should be interpreted with such consideration.

Area	Footprint to WWTP (acres)	Area-weighted Impervious Fraction	1-inch stormwater runoff volumes (gallons)	Average Annual Flowrate (gpm)[1]
Chemours Monomers IXM	0 (none)	N/A	0	0
Chemours PPA	0 (none)	N/A	0	0
Kuraray SentryGlas®	0 (none)	N/A	0	0
Kuraray Trosifol®	0.87	0.97	22,000	1.7
WWTP	0.081	1	2,100	0.16
Power	0.53	1	14,000	1.1
DuPont	0.35	1	9,000	0.70
Total	**1.8**	**0.99**	**47,000**	**3.7**

Notes:

1 - The average annual flowrate in gpm (gallons per minute) is estimated based on the total annual volume of stormwater over a year divided by the length of a year, which includes periods of dry weather.

Sitewide stormwater sampling events in June 2019 (Geosyntec, 2019) and October 2019 (Geosyntec, 2020a) collected and analyzed grab samples of stormwater throughout the Facility. The table below shows the stormwater sampling locations identified as being representative of stormwater draining to the WWTP. These locations are plotted on **Figure 3**.

[4] The estimated (area-weighted) slope, width, and soil characteristics (suction head, hydraulic conductivity, and initial deficit) were also used to characterize each area in the hydrologic model.

Area	Representative Stormwater Sample Locations	Stormwater Only Samples Collected
Kuraray	5	June & October 2019
Power Area	40	June & October 2019
DuPont	13	October 2019
WWTP	35	June & October 2019

Stormwater loads to the WWTP were estimated for the annual average stormwater runoff volumes to the WWTP using the range of concentrations presented in **Table 2** to evaluate a stormwater PFAS loads. The results of the analysis are described later in Section 4, Results.

3.4 Mass Loading Assessment

The Table 3+ PFAS mass discharge (units of mass per time) from each of the manufacturing areas and from sanitary and stormwater was calculated by multiplying flowrate for each area / flow type by the median PFAS concentration data from that area. The PFAS concentration data collected during the time period for the sampling investigations were used to calculate the median concentration. Some areas had multiple locations sampled during the investigation that combined at locations downstream in the process (i.e., Locations 6A and 6B combined at Location 18 in the Kuraray Trosifol® area). For areas where upstream sampling locations combined at downstream locations, the downstream location PFAS concentration data were used.

Limited sanitary flowrate information was available related to each manufacturing area at the Facility. Sanitary flowrates for each area were estimated by dividing the sanitary usage by Chemours, DuPont, and Kuraray based on employee headcount. Based on this assessment, DuPont contributed approximately 7% of the total sanitary flowrate at the Facility while the balance was assumed to be discharged to the central lift station (LS-1) by the Chemours Monomers and IXM, Chemours PPA, and Kuraray Areas.

4. RESULTS

The data used in this assessment are described in the sub-sections below. Data are summarized in tables, as follows:

- June 2020, March 2021, and April 2021 WWTP Sampling Events: The Table 3+ PFAS analytical results from the process and sanitary wastewater sample locations collected during these investigations are summarized in **Table 3**.
- P11 Initial Characterization and Ongoing Sampling Events: The Table 3+ PFAS analytical results are provided in the in-text summary tables in this report. The detailed analytical results are provided in quarterly sampling reports provided to the NCDEQ (Geosyntec, 2020a).

- Stormwater Assessment: Results of the stormwater evaluation of Table 3+ PFAS reference the historical sitewide stormwater assessments (Geosyntec, 2019 and 2020a) dataset. Results are also summarized in **Table 2**.

The remainder of this section describes data quality, summarizes the wastewater concentration, and summarizes the mass loading assessment results.

4.1 Data Quality

The analytical data were reviewed using the Data Verification Module (DVM) within the Locus™ Environmental Information Management (EIM) system, a commercial software program used to manage data. Following the DVM process, a manual review of the data was conducted. The DVM and the manual review results were combined in laboratory analytical data review narrative reports for each set of sample results, which were consistent with Stage 2b of the USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use (USEPA-540-R-08-005, 2009). The data review narrative reports is provided in **Appendix A**. The narrative report summarizes which samples were qualified (if any), the specific reasons for the qualification, and any potential bias in reported results. The data usability, in view of the project's data quality objectives (DQOs), was assessed, and the data were entered into the EIM system.

The data were evaluated by the DVM against the following data usability checks:

- Hold time criteria
- Field and laboratory blank contamination
- Completeness of quality assurance/quality control samples
- Matrix spike/matrix spike duplicate recoveries and the relative percent differences (RPDs) between these spikes
- Laboratory control sample/control sample duplicate recoveries and the RPD between these spikes
- Surrogate spike recoveries for organic analyses
- RPD between field duplicate sample pairs

A manual review of the data was also conducted and includes manual review of the chromatographic peaks for Table 3+ compounds, application of qualifiers originating from field QC samples, and investigative sample completeness. The data review process (DVM plus manual review) applied the following data evaluation qualifiers to the analytical results as required:

- J Analyte present, reported value may not be accurate or precise
- UJ Analyte not present below the reporting limit; reporting limit may not be accurate or precise
- B Analyte present in a blank sample, reported value may have a high bias

The data review process described above was performed for the laboratory chemical analytical data generated for the sampling event. The DQOs were met for the analytical results for accuracy and precision. The data collected are believed to be complete, representative and comparable, with the exception of R-PSDA, Hydrolyzed PSDA, and R-EVE.

4.1.1 Table 3+ 17 Compounds

As reported in the *Matrix Interference During Analysis of Table 3+ Compounds* memorandum (Geosyntec, 2020c), matrix interference studies conducted by the analytical laboratory (TestAmerica, Sacramento) have shown that the quantitation of three compounds (R-PSDA [formerly Byproduct 4], Hydrolyzed PSDA [formerly Byproduct 5], and R-EVE) is inaccurate due to interferences by the sample matrix in both groundwater and surface water. Given the matrix interference issues, Total Table 3+ PFAS concentrations are calculated and presented in the tables of this report in two ways: (i) summing over 17 of the 20 Table 3+ compounds "Total Table 3+ (sum of 17 compounds)", i.e., excluding results of R-PSDA, Hydrolyzed PSDA, and R-EVE, and (ii) summing over 20 of the Table 3+ compounds "Total Table 3+ (sum of 20 compounds)". Expressing these data as a range represents possible values of what these results might be without matrix interferences. In other words, the sum of all 17 compounds is an underestimate of the actual value while the sum of the 20 compounds is likely an overestimate of the actual value.

For clarity the text and figures of this report include both the Table 3+ 17 compound sums and Table 3+ 20 compounds sums.

4.2 WWTP Table 3+ PFAS Concentration Summary

The data used in this analysis are summarized in **Table 1**. A brief summary of the Total Table 3+ (17 compounds) results is provided below.

Source	No. of Samples	Median[2] (ng/L)	Minimum[2] (ng/L)	Maximum[2] (ng/L)
Washing Machines	3	69,000	29,000	690,000
WWTP Biosolids	3	5,500	4,000	7,100
Sanitary Wastewater – All Areas	18	6,800	340	43,000
Location 23A - Terracotta Pipe	15	11,000	800	40,000
Stormwater[1]	7	3,600	250	10,000
DuPont Lab Lift Station	3	2,900	290	190,000
WWTP Effluent	15	1,400	200	31,000
Power	15	450	0	600
WWTP Influent	14	300	93	29,000
Kuraray Areas	54	110	0	34,000
River Water Intake	14	62	0	270
DuPont PVF	26	54	5	970

Notes

1 - Stormwater concentrations represent approximate stormwater runoff volume-weighted concentrations. Based on the available stormwater sample results representative of each area, the minimum, maximum, and median measured PFAS concentrations were determined. To account for the expected variation in PFAS concentrations in stormwater, the variability of recent, estimated stormwater concentrations at Outfall 002 (methodology outlined in the Reduction Plan [Geosyntec, 2019]) was quantified and applied. To account for both the typical variability in stormwater data and the uncertainty due to the limited stormwater sample data, the 90% confidence intervals for estimated Outfall 002 stormwater concentrations (as percentages of the median) were applied to the minimum and maximum measured representative stormwater concentrations in each of the Facility areas to estimate a low and high stormwater concentration, respectively.

2 - All concentration data has been rounded to two significant digits.

The highest concentrations were observed from the Chemours PPA and Monomers IXM washing machines which flow into sanitary wastewater. Other high concentrations include Location 23A, the DuPont Lab Lift Station, Stormwater, and WWTP biosolids. For most source areas to the WWTP the median concentration data were more similar to the minimum values than the maximum values.

The Kuraray, DuPont, and the Power Areas were found to contain low concentrations of Total Table 3+ PFAS substances similar in concentration to River Intake concentrations. These areas contribute approximately 94% of the WWTP influent flows. These locations are predominantly process wastewater, some NCCW, and stormwater. The maximum Kuraray Area concentrations (Location 23A) is in the Terracotta Pipe, which historically also conveyed process wastewater from Chemours Monomers IXM prior to 2017. In April 2021, wastewaters from Kuraray SentryGlas® operations and Laboratory were sampled from the replacement HDPE pipe at Locations 23C-1 and 23C-2. These samples had results similar to River Intake at median concentrations of 290 and 255 nanograms per liter (ng/L) at location 23C-1 and 23C-2, respectively.

Lastly, the WWTP effluent concentrations were higher than the WWTP influent concentration, suggesting additional contribution of PFAS occurs across the WWTP.

4.2.1 Dry Weather vs. Wet Weather

Weather affects the WWTP loads. From 15 samples collected at the WWTP effluent (Outfall 001 and Location 8) between April 2019 and February 2021, 10 were collected during dry weather and five (5) were collected during wet weather. The samples collected during wet weather had higher PFAS concentrations than those collected during dry weather indicating stormwater contributions to the WWTP. The average wet weather concentration was approximately 10,000 ng/L for Total Table 3+ (median was 4,500 ng/L), and the average dry weather concentration was approximately 1,700 ng/L (median was 1,350 ng/L).

4.3 WWTP Table 3+ PFAS Mass Loading Assessment

The mass loading assessment calculated the Table 3+ PFAS mass discharge for the separate flow / loading types and then compared the loadings to the Cape Fear River Table 3+ PFAS mass discharge by calculating how much of the Cape Fear River Load potentially originated from these WWTP loads. This calculation was performed using the 2020 median Cape Fear River PFAS load of 9.5 milligrams per second (mg/s), i.e. 9,500 micrograms per second (µg/s), based on data reported in *Cape Fear River PFAS Mass Loading Assessment – Fourth Quarter 2020 Report* (Geosyntec, 2020b). The results of the assessment are summarized in the table below. The results indicate Table 3+ PFAS desorption from biosolids in the WWTP and sanitary flows are the two largest contributing factors to WWTP effluent Table 3+ PFAS mass discharge followed by stormwater loads. PFAS desorption from biosolids across the WWTP were estimated by subtracting in the influent PFAS loading from the effluent PFAS loading - a calculation basis supported by the concentration of PFAS in the waste activated sludge and described later in Section 5.1.4.

Dry Weather Flow Mass Loading - Based on Median Table 3+ PFAS Concentrations -			
Flow / Loading Type	**Representative Flowrate (GPM)**	**Estimated Table 3+ PFAS Mass Discharge (µg/s)**	**Estimated Percentage of River Mass Loading (%)[1]**
Biosolids PFAS Desorption	-	15.5	0.16%
Sanitary	14	5.6	0.059%
WWTP Influent[2]	234	4.4	0.047%
Power	35	1.0	0.010%
Kuraray SentryGlas®	17	0.3	0.003%
DuPont PVF	94	0.3	0.003%
Kuraray Trosifol®	74	0.2	0.002%
DuPont Laboratory	0.35	0.1	0.001%
WWTP Effluent[3]	**234**	**20.0**	**0.21%**
Additional Wet Weather Loads			
Stormwater (average annual)[4]	**3.7**	**0.84 (0.058 – 2.5)**	**0.009%**

Notes:

1 - The Cape Fear River 2020 median Table 3+ PFAS mass discharge was 9,500 µg/s.

2 - The WWTP influent mass discharge estimate is based on concentration measurements at the influent and represents the combined flows to the WWTP.

3 - The WWTP effluent mass discharge estimate is based on concentration measurements at the effluent and represents the combined flows into and mass discharges exiting the WWTP.

4 - The estimated range of stormwater mass discharge was 0.058 to 2.5 µg/s.

5. DATA ASSESSMENT

This section presents the identification of significant sources of Table 3+ PFAS loading to the WWTP effluent (Location 8) and to Location 23A. This section first describes the identified source types of Table 3+ PFAS to the WWTP and then evaluates the significance of the different Table 3+ PFAS loadings to the WWTP effluent.

5.1 Source Types of Table 3+ PFAS to the WWTP

Five potential source types of Table 3+ PFAS to the WWTP were identified and are listed below. The following sub-sections describe each of these source types.

- Chemours Washing Machines
- Historic Table 3+ PFAS
- Stormwater
- Biosolids PFAS Desorption
- Potentially limited groundwater intrusion

5.1.1 Chemours Monomers IXM and PPA Area Washing Machines

Table 3+ PFAS from washing machines are interpreted to be the source of Table 3+ PFAS in sanitary wastewater from the Chemours Monomers IXM and PPA Areas. Washing machines in these areas are used to clean operator suits. The washing machines currently in use are listed in the table below along with measured Table 3+ PFAS concentration from the sample collected in June 2020 at the effluent from each of the washing machines. One sample of washing effluent was collected from each location. The flowrate from the washing machines is estimated at several hundred gallons per day. These washing machines discharge Table 3+ PFAS to the sanitary wastewater conveyance system and contribute to the overall sanitary wastewater PFAS mass load. Chemours is currently modifying the washing machine plumbing to collect and direct the sanitary wastewater effluent from the machines for off-site disposal and so detailed loading calculations were not completed.

Area Washing Machines	Table 3+ PFAS Concentration (ng/L)
PPA Acid	690,000
PPA Nomex	69,000
Chemours Monomers and IXM Nomex	29,000

5.1.2 Historic Table 3+ PFAS

Historical Table 3+ PFAS from past fluoroproduct manufacturing operations process wastewater are interpreted to be the dominant source of Table 3+ PFAS in former Terracotta Pipe locations, particularly Kuraray Locations 23A and the DuPont Laboratory Lift Station location LS-3. Fluoroproduct manufacturing operations historically discharged process wastewater containing PFAS through the Terracotta Pipe from the Monomers IXM Area and from the former polymer manufacturing and development facility (PMDF) Area at the now DuPont Laboratory Lift location. These historic operations are interpreted to have emplaced PFAS in these sewers / sumps which overtime are desorbing or are being mobilized while attached to sediments and directed to the WWTP.

5.1.3 Stormwater Table 3+ PFAS

Stormwater Table 3+ PFAS are interpreted to be the source of increased wet weather detections at the WWTP effluent described in Section 4.2.1 and a contributor to the minor dry weather detections in Kuraray, Power, and DuPont process water samples. These three areas combined stormwater containing Table 3+ PFAS with process wastewater. During dry weather, Table 3+ PFAS from prior stormwater events are interpreted to remain Table 3+ PFAS, either as stormwater or sediments from storm events with sorbed Table 3+ PFAS both of which were not fully flushed.

5.1.4 Biosolids Table 3+ PFAS Desorption – Reservoir of PFAS

Desorption of PFAS from biosolids in the WWTP is interpreted to be a source of PFAS within the WWTP to the WWTP effluent. Biosolids preferentially sorb PFAS and act as a sink (i.e. a reservoir) for Table 3+ PFAS when high concentration influent events occur, such as discharge from a Chemours Area washing machine. Subsequently these biosolids act as a reservoir of Table 3+ PFAS that desorb back into the surrounding water as influent water concentrations decrease.

The dynamic of PFAS absorption followed by the potential for desorption is illustrated in comparing the mass of PFAS present in biosolids compared to the surrounding water phase (the mixed liquor). Of the PFAS solids present in the mixed liquor sample, 99.4% of the PFAS present were bound in the biosolids while only 0.6% were present in water.

5.1.5 Potentially Limited Groundwater Intrusion

Groundwater intrusion is not presently interpreted to be a source of Table 3+ PFAS to the WWTP. To evaluate the potential for groundwater intrusion, the existing wastewater conveyance network piping elevations were compared to adjacent groundwater elevation data using the highest groundwater elevations observed between December 2017 and March 2021. The analysis performed was considerably conservative. It assumed the lowest possible piping elevations possible based on the uncertainty in the piping elevations, increasing the potential for groundwater elevations to be considered higher than piping elevations. Facility drawing elevations of the process and sanitary sewer network are assumed to be accurate within +/- 1 foot of the NAVD88 survey system. The level of uncertainty reported here is relatively high since Facility elevation benchmarks do not correspond to recent survey information.

The historical process sewer network (including the Terracotta Pipe) was compared to groundwater elevations in **Figure 4** and the sanitary sewer network was compared to groundwater elevations in **Figure 5**. Three potential locations where groundwater may be at higher elevations than the conveyance networks were identified:

i) The abandoned and decommissioned Terracotta Pipe which historically conveyed process wastewater from the Chemours Monomers IXM Area to the main Terracotta Pipe. This section does not present a source of Table 3+ PFAS to the WWTP. This section has been decommissioned and grouted.

ii) The sanitary conveyance network in the Chemours Monomers IXM Area. Groundwater is not presently interpreted to be a source to sanitary loadings. Sanitary wastewater Table 3+ PFAS loads from the Monomers IXM Area are dominated by washing machine discharges and there is uncertainty in the piping elevation.

iii) The WWTP influent sump. Groundwater is not presently interpreted to be a source as influent sump Table 3+ PFAS loads are presently dominated by other influent streams and there is uncertainty in the piping elevation.

The assessment was unable to obtain invert elevations in a timely manner to evaluate sanitary elevations in the DuPont leased area (located in the south-east corner of the Facility) and the Construction Area (located in the south-west corner of the Facility), and process sewer elevations in the DuPont area compared to groundwater elevations.

5.2 Assessment of Loading Significance

As a whole, the WWTP effluent represents a minor loading from the Facility to the Cape Fear River. As shown in Section 4.3, the WWTP represents only 0.21% of the total Table 3+ PFAS load in the Cape Fear River for the median Cape Fear River 2020 Table 3+ PFAS mass discharge. Considered another way, the highest loading of HFPO-DA from the WWTP effluent would result in a Cape Fear River HFPO-DA concentration contribution of 0.24ng/L[5] at 7Q10 low flow river conditions.

While the WWTP effluent loading itself to the Cape Fear River is minor, the loadings to the WWTP are categorized and described in the following subsections as either primary, secondary or tertiary loadings based on the results of the loading analysis presented in Section 4.3.

5.2.1 Primary Table 3+ PFAS Loadings to WWTP

The primary Table 3+ PFAS loadings to the WWTP are from desorption of Table 3+ PFAS from biosolids and sanitary wastewaters. The sanitary wastewater loadings primarily originate from

[5] Calculation of Cape Fear River HFPO-DA concentration from WWTP based on HFPO-DA concentration of 210ng/L collected during the P11 sampling program and a WWTP effluent flow rate of 0.34 MGD.

washing machine discharges from the Chemours Monomers IXM and PPA Areas. As described in the following section, Chemours will be directing washing machine discharges offsite. This will reduce sanitary wastewater Table 3+ PFAS loadings.

While desorption of Table 3+ PFAS from WWTP biosolids contribute Table 3+ PFAS to the WWTP effluent, the biosolids do not represent a source of PFAS, rather they are a reservoir absorbing Table 3+ PFAS inputs. The remedial actions and WWTP changes described in the next section will reduce loadings to the WWTP and by extension reduce the degree of desorption of Table 3+ PFAS from biosolids.

5.2.2 Secondary Table 3+ PFAS Loadings to the WWTP

The secondary Table 3+ PFAS loading to the WWTP originates from stormwater loadings. Stormwater loads to the WWTP will decrease over time as Chemours continues to operate air emission abatement technologies such as the thermal oxidizer leading to surfaces contacting stormwater being steadily more flushed overtime.

5.2.3 Tertiary Table 3+ PFAS Loadings to the WWTP

The tertiary Table 3+ PFAS loadings to the WWTP originate from Kuraray, DuPont, and Power Areas. The relatively minor loadings of Table 3+ PFAS detected at these locations are interpreted to originate from stormwater interactions and from historic PFAS contributions. Interpreted historical PFAS contributions were for Kuraray Terracotta Pipe locations, including Location 23A, and the DuPont Laboratory. Process wastewater sampled from Kuraray flows after the replacement HDPE pipe was installed had low Table3+ PFAS loadings. Similarly, the DuPont PVF and Power Areas show low Table 3+ PFAS loadings.

6. PROPOSED AND COMPLETED REMEDIAL ACTIONS

This section describes completed and proposed remedial actions to the WWTP which are anticipated to reduce the loading of Table 3+ PFAS to the WWTP. These actions originate from both observations made in this assessment and from modifications already planned to the WWTP by the Facility. The remainder of this first section describes completed actions and then describes proposed actions.

6.1 Completed Action - Terracotta Pipe Replacement

The Terracotta Pipe, a source of historical PFAS to both Location 23A and the WWTP, has been abandoned and decommissioned. In the future, this pipe will not contribute Historical Table 3+ to the WWTP. Chemours first ceased discharge of process water through the Terracotta Pipe in 2017, and then grouted the section of pipe between the Chemours Monomers IXM and the Terracotta Pipe main line in February 2019. In October 2020, a new HDPE line was installed to direct process wastewater from the Power area to the WWTP. In April 2021, Kuraray installed a new HDPE line to convey process wastewater from the SentryGlas®, Laboratory, and Trosifol® areas to the WWTP. In April 2021, Chemours completed the abandonment and decommissioning of the Terracotta Pipe by filling the pipe with grout.

6.2 Proposed Actions to be Completed

Below are proposed actions to reduce Table 3+ PFAS loads to the WWTP and evaluate the post-action conditions.

- Direct PPA Area Washing Machine Effluent to Offsite Disposal/Incineration by July 2021 and direct Chemours Monomers IXM once the PPA area modifications are complete Directing this effluent offsite will reduce Table 3+ PFAS loadings to the sanitary network and subsequently the WWTP. The Facility is currently in progress for completing this action.
- Reduce Biosolids Volume and Consider Biosolids Transplant: The Facility is reducing the size of the current WWTP in Phase 1 which will significantly reduce biosolid. In addition the amount biosolids to be significantly be reduced due to the reduction in organic loading. This smaller plant will reduce the amount of biosolids available to both sorb and desorb Table 3+ PFAS, and receive fewer Table 3+ PFAS inputs based on actions proposed and completed.
- Continue to Operate Air Emission Abatement Controls: Air emission abatement controls over time will lead to reduce Table 3+ PFAS concentrations in stormwater, which will in turn lead to reduced stormwater Table 3+ PFAS loadings to the WWTP.
- DuPont Laboratory Process Wastewater: Though a low loading to the WWTP, concentrations were elevated from historical PFAS that may have been directed to the lift station when the Process Manufacturing Development Facility (PMDF) lab, now DuPont lab, supported the PMDF operations. The sump will be washed and rinsed.
- Assess WWTP Table 3+ PFAS through Consent Order paragraph 11(d) sampling program: Modifications to the WWTP are to be completed alongside the recommendations made above. Chemours will continue to assess WWTP influent and effluent concentrations and assess PFAS loading reductions as part of the Consent Order Paragraph 11 sampling program.

7. REFERENCES

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NC License No.: C-3500 and C-295

TABLES

TABLE 1
Summary of Wastewater Total Table 3+ Concentration Data
Chemours Fayetteville Works, North Carolina

Sample Location Cateogry	Sample Location ID	Sample Location Description	No. of Samples	Total Table 3+ (17 Compounds) (ng/L)			Total Table 3+ (20 Compounds) (ng/L)		
-	-	-	-	Median	Minimum	Maximum	Median	Minimum	Maximum
PPE Washing Machines	23A-3-ACID	Chemours PPA Acid Suit Washing Machines	1	690,000	690,000	690,000	690,000	690,000	690,000
	23A-3-NOM	Chemours PPA Nomex Suit Washing Machines	1	69,000	69,000	69,000	69,000	69,000	69,000
	24D-3-NOM	Chemours IXM Building 29 Nomex Suit Washing Machines	1	29,000	29,000	29,000	30,000	30,000	30,000
WWTP Activated Slude	AS-1 sludge	WWTP Activated Sludge - Solid Residue	3	61,000	37,000	140,000	110,000	58,000	240,000
	AS-1 total	Whole WWTP Activated Sludge	3	5,500	4,000	7,100	8,600	6,400	11,000
	AS-1 filtered	Filtered WWTP Activated Sludge	3	630	590	640	1,100	1,100	1,200
Sanitary Wastewater	22-1	Sanitary Manhole Upsteam of WWTP	1	22,000	22,000	22,000	24,000	24,000	24,000
	MH-1	SentryGlas® and PPA Sanitary Effluent	3	15,000	4,000	43,000	16,000	4,100	43,000
	MH-4	Chemours IXM Sanitary Effluent	3	15,000	12,000	30,000	39,000	36,000	57,000
	LS-1	Central Sanitary Lift Station	3	6,800	5,800	11,000	11,000	8,100	14,000
	MH-3	Sanitary Pipe Manhole Upstream of WWTP - Butacite	2	1,800	1,500	10,000	2,600	2,400	20,000
	LS-2	DuPont Sanitary Lift Station	3	750	740	1,000	970	740	1,200
	MH-2	Kuraray Trosifol and Lab Sanitary Effluent	3	380	340	500	625	550	720
Terracotta Pipe	LOC23A	Location 23A	15	11,000	800	40,000	15,000	1,300	48,000
	22-3	Manhole along Terracotta Pipe prior to WWTP	1	0	0	0	215	215	215
WWTP	8	WWTP Effluent	15	1,350	200	31,000	1,900	260	36,000
	22	WWTP Influent	14	300	93	29,000	760	110	96,000
River Water Intake	1	River water intake at Facility	14	62	0	270	86	0	320
Power Area	18A-1A	Power Station IX#1 Backflow	3	4,400	3,700	5,100	5,000	4,400	5,600
	18A-2	Power Stormwater Dike	1	860	860	860	860	860	860
	18B	Power Station Neutralization Tank	3	450	170	600	690	200	730
	18A-3A	Power Station Compressor #1	1	0	0	0	0	0	0
	18A-3B	Power Station Compressor #2	1	0	0	0	0	0	0
	18A-3C	Power Station Compressor Input #3	1	0	0	0	0	0	0
	18A	Sump at Power Station	1	0	0	0	120	120	120
	18A-1B	Power Station Ion Exchange Water #2	4	31	30	140	63	30	140

TABLE 1
Summary of Wastewater Total Table 3+ Concentration Data
Chemours Fayetteville Works, North Carolina

Sample Location Cateogry	Sample Location ID	Sample Location Description	No. of Samples	Total Table 3+ (17 Compounds) (ng/L)			Total Table 3+ (20 Compounds) (ng/L)		
-	-	-	-	Median	Minimum	Maximum	Median	Minimum	Maximum
Kuraray	23B	Kuraray Lab Effluent	11	140	61	34,000	160	61	36,000
	23A-2	Kuraray Laboratory Process Wastewater	1	0	0	0	0	0	0
	6B	Kuraray Southern Leased Area NCCW Discharge - Resins Area	12	63	3	150	77	11	150
	18	Kuraray Trofisol Manufacturing Process Wastewater	17	36	6	560	44	6	790
	23C-1	Kuraray SentryGlas	1	290	2.6	38	603	2.6	150
	23C-2	Kuraray Lab	1	255	3.4	46	280	3.4	46
	6A	Kuraray southern leased area NCCW discharge - Vacuum Condenser	12	78	30	230	100	43	290
DuPont	19A	DuPont process wastewater, PVF Plant 1	13	52	7	970	52	7	980
	19B	DuPont process wastewater, PVF Plant 2	13	57	5	510	57	5	510
	LS-3	DuPont Laboratory Lift Station	3	2,900	290	2,900	2,900	290	2,900

TABLE 2
Estimated Stormwater Concentration in Areas Draining to the WWTP
Chemours Fayetteville Works, North Carolina

Site Area	Parameter	Measured Stormwater Concentration (ng/L)			90% CI % of Median	Estimated Range of Stormwater Concentrations (ng/L)	
		Min	Max	Median		Low	High
Dupont	EVE Acid	55	55	55	260%	0	200
Dupont	Hfpo Dimer Acid	760	760	760	68%	240	1,300
Dupont	Hydro-EVE Acid	63	63	63	190%	0	180
Dupont	Hydro-PS Acid	52	52	52	69%	16	88
Dupont	NVHOS	25	25	25	110%	0	52
Dupont	PEPA	440	440	440	130%	0	1,000
Dupont	PES	2.0	2.0	2.0	1800%	0	37
Dupont	PFECA B	2.0	2.0	2.0	2700%	0	56
Dupont	PFECA-G	2.0	2.0	2.0	420%	0	10
Dupont	PFMOAA	150	150	150	180%	0	420
Dupont	PFO2HxA	350	350	350	95%	18	680
Dupont	PFO3OA	160	160	160	130%	0	370
Dupont	PFO4DA	150	150	150	140%	0	360
Dupont	PFO5DA	96	96	96	120%	0	210
Dupont	PMPA	1,100	1,100	1,100	87%	140	2,100
Dupont	PS Acid	68	68	68	64%	25	110
Dupont	R-PSDCA	2.0	2.0	2.0	46%	1.1	2.9
Kuraray	EVE Acid	2.0	24	13	260%	0	87
Kuraray	Hfpo Dimer Acid	140	180	160	68%	44	300
Kuraray	Hydro-EVE Acid	2.0	28	15	190%	0	81
Kuraray	Hydro-PS Acid	4.2	30	17	69%	1.3	51
Kuraray	NVHOS	2.5	54	28	110%	0	110
Kuraray	PEPA	47	79	63	130%	0	180
Kuraray	PES	2.0	46	24	1800%	0	860
Kuraray	PFECA B	2.0	60	31	2700%	0	1,700
Kuraray	PFECA-G	2.0	41	22	420%	0	210
Kuraray	PFMOAA	5.0	210	110	180%	0	580
Kuraray	PFO2HxA	22	81	52	95%	1.1	160
Kuraray	PFO3OA	2.7	58	30	130%	0	130
Kuraray	PFO4DA	2.7	79	41	140%	0	190
Kuraray	PFO5DA	4.6	34	19	120%	0	74
Kuraray	PMPA	190	570	380	87%	25	1,100
Kuraray	PS Acid	2.4	27	15	64%	0.88	44
Kuraray	R-PSDCA	2.0	15	8.5	46%	1	22
Power Area	EVE Acid	2.0	44	23	260%	0	160
Power Area	Hfpo Dimer Acid	230	5,900	3,100	68%	73	9,900
Power Area	Hydro-EVE Acid	2.1	120	61	190%	0	350
Power Area	Hydro-PS Acid	15	89	52	69%	4.7	150
Power Area	NVHOS	6.3	54	30	110%	0	110
Power Area	PEPA	110	1,100	610	130%	0	2,500
Power Area	PES	2	46	24	1800%	0	860
Power Area	PFECA B	2	60	31	2700%	0	1,700
Power Area	PFECA-G	2	41	22	420%	0	210
Power Area	PFMOAA	32	350	190	180%	0	970
Power Area	PFO2HxA	51	310	180	95%	2.6	600
Power Area	PFO3OA	9	180	95	130%	0	410
Power Area	PFO4DA	8.6	240	120	140%	0	570
Power Area	PFO5DA	11	110	61	120%	0	240
Power Area	PMPA	350	2,800	1,600	87%	45	5,200
Power Area	PS Acid	19	58	39	64%	6.9	95

TABLE 2
Estimated Stormwater Concentration in Areas Draining to the WWTP
Chemours Fayetteville Works, North Carolina

Site Area	Parameter	Measured Stormwater Concentration (ng/L)			90% CI % of Median	Estimated Range of Stormwater Concentrations (ng/L)	
		Min	Max	Median		Low	High
Power Area	R-PSDCA	2	15	8.5	46%	1.1	22
WWTP	EVE Acid	24	47	36	260%	0	170
WWTP	Hfpo Dimer Acid	100	1,600	850	68%	32	2,700
WWTP	Hydro-EVE Acid	28	56	42	190%	0	160
WWTP	Hydro-PS Acid	220	1,700	960	69%	69	2,900
WWTP	NVHOS	54	380	220	110%	0	790
WWTP	PEPA	47	500	270	130%	0	1,100
WWTP	PES	2.0	46	24	1800%	0	860
WWTP	PFECA B	2.0	60	31	2700%	0	1,700
WWTP	PFECA-G	2.0	41	22	420%	0	210
WWTP	PFMOAA	210	12,000	6,100	180%	0	33,000
WWTP	PFO2HxA	130	2,400	1,300	95%	7	4,700
WWTP	PFO3OA	58	1,300	680	130%	0	3,000
WWTP	PFO4DA	79	1,000	540	140%	0	2,400
WWTP	PFO5DA	95	700	400	120%	0	1,500
WWTP	PMPA	570	970	770	87%	74	1,800
WWTP	PS Acid	27	160	94	64%	10	260
WWTP	R-PSDCA	5.0	29	17	46%	2.7	42
Dupont	Total Table 3+ (17)	1,500	4,100	2,800	82%	270	7,500
Kuraray	Total Table 3+ (17)	600	1,600	1,100	82%	110	2,900
Power Area	Total Table 3+ (17)	1,900	11,000	6,500	82%	350	20,000
WWTP	Total Table 3+ (17)	5,300	21,000	13,000	82%	970	38,000

Notes:

1 - To account for the expected variation in PFAS concentrations in stormwater, the variability of estimated stormwater concentrations at Outfall 002 (as described in Geosyntec, 2019) was calculated and applied. The "90% CI % of median" represents the 90% confidence interval, as a precentage relative to the median concentration, of estimated stormwater concentrations at Outfall 002, based on sample results at Outfall 002 from May 2019 through February 2021.

2 - The 90% CI for Outfall 002 stormwater concentrations (as percentages of the median) were applied to the minimum and maximum measured representative stormwater concentrations in each of the site areas draining to the WWTP, to determine an estimated low and high stormwater concentration, respectively.

3 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

4 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE.

CI - Confidence Interval
Min - Minimum
Max - Maximum
ng/L - nanograms per liter
WWTP - Wastewater Treatment Plant

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	June 2020
Location Description	River water intake at Facility	WWTP Effluent day 1	WWTP Effluent day 2	WWTP Effluent day 3
Location ID	1	8	8	8
Field Sample ID	WWTP_LOC1_060520	WWTP_LOC8_060420	WWTP_LOC8_060520	WWTP_LOC8_060620
Sample Date	6/5/2020	6/4/2020	6/5/2020	6/6/2020
QA/QC	--	--	--	--
Analytical Laboratory	On-site laboratory	On-site laboratory	On-site laboratory	On-site laboratory
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	< 100	**199**	**198**	**245**
PFMOAA	< 100	**378**	**1314**	**366**
PFO2HxA	< 100	**114**	**279**	**107**
PFO3OA	< 100	< 100	< 100	< 100
PFO4DA	< 100	< 100	< 100	< 100
PFO5DA	< 100	< 100	< 100	< 100
PMPA	< 100	< 100	< 100	< 100
PEPA	< 500	< 500	< 500	< 500
PS Acid	< 100	< 100	< 100	< 100
Hydro-PS Acid	< 100	**147**	**153**	**148**
R-PSDA	< 100	**103**	< 100	< 100
Hydrolyzed PSDA	< 100	**611**	**711**	**643**
R-PSDCA	< 100	< 100	< 100	< 100
NVHOS	< 500	< 500	< 500	< 500
EVE Acid	< 100	< 100	< 100	< 100
Hydro-EVE Acid	< 100	< 100	< 100	< 100
R-EVE	< 100	< 100	< 100	< 100
PES	< 100	< 100	< 100	< 100
PFECA B	< 100	< 100	< 100	< 100
PFECA-G	< 100	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	ND	**840**	**1,900**	**870**
Total Table 3+ Compounds (20 compounds)[1]	ND	**1,600**	**2,700**	**1,500**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	June 2020
Location Description	WWTP Effluent day 5	WWTP Effluent day 6	WWTP Effluent day 7	WWTP Effluent day 8
Location ID	8	8	8	8
Field Sample ID	WWTP_LOC8_060820	WWTP_LOC8_060920	WWTP_LOC8_061020	WWTP_LOC8_061120
Sample Date	6/8/2020	6/9/2020	6/10/2020	6/11/2020
QA/QC	--	--	--	--
Analytical Laboratory	On-site laboratory	On-site laboratory	On-site laboratory	On-site laboratory
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**226**	**210**	**241**	**205**
PFMOAA	**282**	**308**	**654**	**1310**
PFO2HxA	< 100	< 100	**140**	**271**
PFO3OA	< 100	< 100	< 100	< 100
PFO4DA	< 100	< 100	< 100	< 100
PFO5DA	< 100	< 100	< 100	< 100
PMPA	< 100	< 100	< 100	< 100
PEPA	< 500	< 500	< 500	< 500
PS Acid	< 100	< 100	< 100	< 100
Hydro-PS Acid	**155**	**161**	**154**	**145**
R-PSDA	< 100	< 100	< 100	< 100
Hydrolyzed PSDA	**712**	**710**	**729**	**636**
R-PSDCA	< 100	< 100	< 100	< 100
NVHOS	< 500	< 500	< 500	< 500
EVE Acid	< 100	< 100	< 100	< 100
Hydro-EVE Acid	< 100	< 100	< 100	< 100
R-EVE	< 100	< 100	< 100	< 100
PES	< 100	< 100	< 100	< 100
PFECA B	< 100	< 100	< 100	< 100
PFECA-G	< 100	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**660**	**680**	**1,200**	**1,900**
Total Table 3+ Compounds (20 compounds)[1]	**1,400**	**1,400**	**1,900**	**2,600**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	June 2020
Location Description	WWTP Effluent day 9	WWTP Effluent day 10	WWTP Effluent day 11	WWTP Effluent day 12
Location ID	8	8	8	8
Field Sample ID	WWTP_LOC8_061220	WWTP_LOC8_061320	WWTP_LOC8_061420	WWTP_LOC8_061520
Sample Date	6/12/2020	6/13/2020	6/14/2020	6/15/2020
QA/QC	--	--	--	--
Analytical Laboratory	On-site laboratory	On-site laboratory	On-site laboratory	On-site laboratory
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**215**	**262**	**241**	**229**
PFMOAA	**256**	**214**	**409**	**7405**
PFO2HxA	< 100	< 100	**111**	**1360**
PFO3OA	< 100	< 100	< 100	**370**
PFO4DA	< 100	< 100	< 100	**122**
PFO5DA	< 100	< 100	< 100	< 100
PMPA	< 100	< 100	< 100	**178**
PEPA	< 500	< 500	< 500	< 500
PS Acid	< 100	< 100	< 100	< 100
Hydro-PS Acid	**129**	**118**	**129**	**194**
R-PSDA	< 100	< 100	< 100	**137**
Hydrolyzed PSDA	**566**	**549**	**578**	**1228**
R-PSDCA	< 100	< 100	< 100	< 100
NVHOS	< 500	< 500	< 500	< 500
EVE Acid	< 100	< 100	< 100	< 100
Hydro-EVE Acid	< 100	< 100	< 100	< 100
R-EVE	< 100	< 100	< 100	< 100
PES	< 100	< 100	< 100	< 100
PFECA B	< 100	< 100	< 100	< 100
PFECA-G	< 100	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**600**	**590**	**890**	**9,900**
Total Table 3+ Compounds (20 compounds)[1]	**1,200**	**1,100**	**1,500**	**11,000**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	June 2020
Location Description	WWTP Effluent day 13	WWTP Effluent day 14	WWTP Effluent day 14 duplicate	Kuraray Trofisol manufacturing process wastewater
Location ID	8	8	8	18
Field Sample ID	WWTP_LOC8_061620	WWTP_LOC8_061720	WWTP_LOC8_061720_D	WWTP_LOC18_060520
Sample Date	6/16/2020	6/17/2020	6/17/2020	6/5/2020
QA/QC	--	--	Field Duplicate	--
Analytical Laboratory	On-site laboratory	On-site laboratory	On-site laboratory	On-site laboratory
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**270**	**295**	**288**	< 100
PFMOAA	**391**	**413**	**400**	< 100
PFO2HxA	**122**	**135**	**134**	< 100
PFO3OA	< 100	< 100	< 100	< 100
PFO4DA	< 100	< 100	< 100	< 100
PFO5DA	< 100	< 100	< 100	< 100
PMPA	**157**	**175**	**194**	< 100
PEPA	< 500	< 500	< 500	< 500
PS Acid	< 100	< 100	< 100	< 100
Hydro-PS Acid	**158**	**119**	**133**	< 100
R-PSDA	**111**	< 100	< 100	< 100
Hydrolyzed PSDA	**747**	**639**	**644**	< 100
R-PSDCA	< 100	< 100	< 100	< 100
NVHOS	< 500	< 500	< 500	< 500
EVE Acid	< 100	< 100	< 100	< 100
Hydro-EVE Acid	< 100	< 100	< 100	< 100
R-EVE	< 100	< 100	< 100	< 100
PES	< 100	< 100	< 100	< 100
PFECA B	< 100	< 100	< 100	< 100
PFECA-G	< 100	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**1,100**	**1,100**	**1,100**	ND
Total Table 3+ Compounds (20 compounds)[1]	**2,000**	**1,800**	**1,800**	ND

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	June 2020
Location Description	**WWTP Influent day 1**	**WWTP Influent day 2**	**WWTP Influent day 3**	**WWTP Influent day 5**
Location ID	**22**	**22**	**22**	**22**
Field Sample ID	**WWTP_LOC22_060420**	**WWTP_LOC22_060520**	**WWTP_LOC22_060620**	**WWTP_LOC22_060820**
Sample Date	**6/4/2020**	**6/5/2020**	**6/6/2020**	**6/8/2020**
QA/QC	**--**	**--**	**--**	**--**
Analytical Laboratory	**On-site laboratory**	**On-site laboratory**	**On-site laboratory**	**On-site laboratory**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)				
HFPO-DA	< 100	< 100	< 100	**278**
PFMOAA	< 100	< 100	< 100	**102**
PFO2HxA	< 100	< 100	< 100	< 100
PFO3OA	< 100	< 100	< 100	< 100
PFO4DA	< 100	< 100	< 100	< 100
PFO5DA	< 100	< 100	< 100	< 100
PMPA	< 100	< 100	< 100	< 100
PEPA	< 500	< 500	< 500	< 500
PS Acid	< 100	< 100	< 100	**298**
Hydro-PS Acid	< 100	< 100	**202**	**115**
R-PSDA	< 100	< 100	< 100	< 100
Hydrolyzed PSDA	**263**	**279**	**469**	**450**
R-PSDCA	< 100	< 100	< 100	< 100
NVHOS	< 500	< 500	< 500	< 500
EVE Acid	< 100	< 100	< 100	< 100
Hydro-EVE Acid	< 100	< 100	< 100	< 100
R-EVE	< 100	< 100	< 100	< 100
PES	< 100	< 100	< 100	< 100
PFECA B	< 100	< 100	< 100	< 100
PFECA-G	< 100	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	ND	ND	**200**	**790**
Total Table 3+ Compounds (20 compounds)[1]	**260**	**280**	**670**	**1,200**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	June 2020
Location Description	WWTP Influent day 6	WWTP Influent day 7	WWTP Influent day 8	WWTP Influent day 9
Location ID	22	22	22	22
Field Sample ID	WWTP_LOC22_060920	WWTP_LOC22_061020	WWTP_LOC22_061120	WWTP_LOC22_061220
Sample Date	6/9/2020	6/10/2020	6/11/2020	6/12/2020
QA/QC	--	--	--	--
Analytical Laboratory	On-site laboratory	On-site laboratory	On-site laboratory	On-site laboratory
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	< 100	**107**	**253**	**505**
PFMOAA	< 100	< 100	**134**	< 100
PFO2HxA	< 100	< 100	< 100	< 100
PFO3OA	< 100	< 100	< 100	< 100
PFO4DA	< 100	< 100	< 100	< 100
PFO5DA	< 100	< 100	< 100	< 100
PMPA	< 100	< 100	< 100	< 100
PEPA	< 500	< 500	< 500	< 500
PS Acid	**150**	< 100	**176**	< 100
Hydro-PS Acid	< 100	< 100	< 100	< 100
R-PSDA	< 100	< 100	< 100	< 100
Hydrolyzed PSDA	**348**	**392**	**283**	**785**
R-PSDCA	< 100	< 100	< 100	< 100
NVHOS	< 500	< 500	< 500	< 500
EVE Acid	< 100	< 100	< 100	< 100
Hydro-EVE Acid	< 100	< 100	< 100	< 100
R-EVE	< 100	< 100	< 100	< 100
PES	< 100	< 100	< 100	< 100
PFECA B	< 100	< 100	< 100	< 100
PFECA-G	< 100	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**150**	**110**	**560**	**510**
Total Table 3+ Compounds (20 compounds)[1]	**500**	**500**	**850**	**1,300**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	June 2020
Location Description	WWTP Influent day 10	WWTP Influent day 11	WWTP Influent day 12	WWTP Influent day 13
Location ID	22	22	22	22
Field Sample ID	WWTP_LOC22_061320	WWTP_LOC22_061420	WWTP_LOC22_061520	WWTP_LOC22_061620
Sample Date	6/13/2020	6/14/2020	6/15/2020	6/16/2020
QA/QC	--	--	--	--
Analytical Laboratory	On-site laboratory	On-site laboratory	On-site laboratory	On-site laboratory
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**223**	< 100	**1371**	**411**
PFMOAA	**136**	< 100	**327**	**577**
PFO2HxA	< 100	< 100	**132**	**185**
PFO3OA	< 100	< 100	< 100	< 100
PFO4DA	< 100	< 100	< 100	< 100
PFO5DA	< 100	< 100	< 100	< 100
PMPA	< 100	< 100	**109**	< 100
PEPA	< 500	< 500	**705**	< 500
PS Acid	< 100	**106**	**301**	**153**
Hydro-PS Acid	**113**	**119**	**244**	**105**
R-PSDA	< 100	< 100	< 100	< 100
Hydrolyzed PSDA	**758**	**811**	**1137**	**435**
R-PSDCA	< 100	< 100	< 100	< 100
NVHOS	< 500	< 500	< 500	< 500
EVE Acid	< 100	< 100	< 100	< 100
Hydro-EVE Acid	< 100	< 100	< 100	< 100
R-EVE	< 100	< 100	< 100	< 100
PES	< 100	< 100	< 100	< 100
PFECA B	< 100	< 100	< 100	< 100
PFECA-G	< 100	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**470**	**230**	**3,200**	**1,400**
Total Table 3+ Compounds (20 compounds)[1]	**1,200**	**1,000**	**4,300**	**1,900**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	March 2021
Location Description	WWTP Influent day 14	Sump at Power Station	Power Station ion exchange water - Input #1	Power Station IX#1 Backflow
Location ID	22	18A	18A-1A	18A-1A
Field Sample ID	WWTP_LOC22_061720	WWTP_LOC18A_060520	WWTP_LOC18A_1A_060520	WWTP-18A-1A-031021
Sample Date	6/17/2020	6/5/2020	6/5/2020	3/10/2021
QA/QC	--	--	--	--
Analytical Laboratory	On-site laboratory	On-site laboratory	On-site laboratory	Enthalpy
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**175**	< 100	**124**	**930**
PFMOAA	**784**	< 100	< 100	**1020**
PFO2HxA	**235**	< 100	**124**	**731**
PFO3OA	**102**	< 100	< 100	**124**
PFO4DA	< 100	< 100	< 100	<75
PFO5DA	< 100	< 100	< 100	<75
PMPA	< 100	< 100	< 100	**1700**
PEPA	< 500	< 500	< 500	**546**
PS Acid	**127**	< 100	< 100	<25
Hydro-PS Acid	**109**	< 100	< 100	<25
R-PSDA	< 100	< 100	< 100	<25
Hydrolyzed PSDA	**377**	**123**	< 100	**374**
R-PSDCA	< 100	< 100	< 100	<25
NVHOS	< 500	< 500	< 500	**86.8**
EVE Acid	< 100	< 100	< 100	<25
Hydro-EVE Acid	< 100	< 100	< 100	<25
R-EVE	< 100	< 100	< 100	**108**
PES	< 100	< 100	< 100	<25
PFECA B	< 100	< 100	< 100	<25
PFECA-G	< 100	< 100	< 100	<25
Total Table 3+ Compounds (17 compounds)[1,2]	**1,500**	ND	**250**	**5,100**
Total Table 3+ Compounds (20 compounds)[1]	**1,900**	**120**	**250**	**5,600**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	June 2020	March 2021	March 2021
Location Description	**Power Station IX#1 Backflow**	**Power Station ion exchange water - Input #2**	**Power Station ion exchange water #2**	**Power Station ion exchange water #2**
Location ID	**18A-1A**	**18A-1B**	**18A-1B**	**18A-1B**
Field Sample ID	**WWTP-18A-1A-031121**	**WWTP_LOC18A_1B_060520**	**WWTP-18A-1B-030621**	**WWTP-18A-1B-030921**
Sample Date	**3/11/2021**	**6/5/2020**	**3/6/2021**	**3/9/2021**
QA/QC	--	--	--	--
Analytical Laboratory	**Enthalpy**	**On-site laboratory**	**Enthalpy**	**Enthalpy**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)				
HFPO-DA	**732**	< 100	<25	<25
PFMOAA	**1010**	< 100	<25	<25
PFO2HxA	**653**	< 100	<25	<25
PFO3OA	**112**	< 100	<25	<25
PFO4DA	<75	< 100	<75	<75
PFO5DA	<75	< 100	<75	<75
PMPA	**939**	< 100	**31.2 J**	**29.5 J**
PEPA	**237**	< 500	<25	<25
PS Acid	<25	< 100	<25	<25
Hydro-PS Acid	<25	< 100	<25	<25
R-PSDA	**438**	< 100	<25	<25
Hydrolyzed PSDA	**266**	< 100	**31.4 J**	<25
R-PSDCA	<25	< 100	<25	<25
NVHOS	<25	< 500	<25	<25
EVE Acid	<25	< 100	<25	<25
Hydro-EVE Acid	<25	< 100	<25	<25
R-EVE	**46.6 J**	< 100	<25	<25
PES	<25	< 100	<25	<25
PFECA B	<25	< 100	<25	<25
PFECA-G	<25	< 100	<25	<25
Total Table 3+ Compounds (17 compounds)[1,2]	**3,700**	ND	**31**	**30**
Total Table 3+ Compounds (20 compounds)[1]	**4,400**	ND	**63**	**30**

Notes:
1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE
Bold - Analyte detected above associated reporting limit
J - Analyte detected. Reported value may not be accurate or precise
ND - No Table 3+ compounds were detected above their associated reporting limits.
ng/L - nanograms per liter
ng/kg - nanograms per kilogram
QA/QC - Quality assurance/ quality control
SOP - standard operating procedure
< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	June 2020	June 2020	June 2020
Location Description	Power Station ion exchange water #2	Power Station dike area stormwater	Power Station compressor cooling water - Input #1	Power Station compressor cooling water - Input #2
Location ID	18A-1B	18A-2	18A-3A	18A-3B
Field Sample ID	WWTP-18A-1B-031121	WWTP_LOC18A_2_060520	WWTP_LOC18A_3A_060520	WWTP_LOC18A_3B_060520
Sample Date	3/11/2021	6/5/2020	6/5/2020	6/5/2020
QA/QC	--	--	--	--
Analytical Laboratory	Enthalpy	On-site laboratory	On-site laboratory	On-site laboratory
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**27.4 J**	**527**	< 100	< 100
PFMOAA	<25	< 100	< 100	< 100
PFO2HxA	**40.2 J**	**134**	< 100	< 100
PFO3OA	<25	< 100	< 100	< 100
PFO4DA	<75	< 100	< 100	< 100
PFO5DA	<75	< 100	< 100	< 100
PMPA	**69.6**	**202**	< 100	< 100
PEPA	<25	< 500	< 500	< 500
PS Acid	<25	< 100	< 100	< 100
Hydro-PS Acid	<25	< 100	< 100	< 100
R-PSDA	<25	< 100	< 100	< 100
Hydrolyzed PSDA	<25	< 100	< 100	< 100
R-PSDCA	<25	< 100	< 100	< 100
NVHOS	<25	< 500	< 500	< 500
EVE Acid	<25	< 100	< 100	< 100
Hydro-EVE Acid	<25	< 100	< 100	< 100
R-EVE	<25	< 100	< 100	< 100
PES	<25	< 100	< 100	< 100
PFECA B	<25	< 100	< 100	< 100
PFECA-G	<25	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**140**	**860**	ND	ND
Total Table 3+ Compounds (20 compounds)[1]	**140**	**860**	ND	ND

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	March 2021	March 2021
Location Description	**Power Station compressor cooling water - Input #3**	**Neutralization tank at Power Station**	**Power Station Neutralization Tank**	**Power Station Neutralization Tank**
Location ID	**18A-3C**	**18B**	**18B**	**18B**
Field Sample ID	**WWTP_LOC18A_3C_060520**	**WWTP_LOC18B_060520**	**WWTP-18B-24-030521**	**WWTP-18B-24-031021**
Sample Date	**6/5/2020**	**6/5/2020**	**3/5/2021**	**3/10/2021**
QA/QC	**--**	**--**	**--**	**--**
Analytical Laboratory	**On-site laboratory**	**On-site laboratory**	**Enthalpy**	**Enthalpy**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)				
HFPO-DA	< 100	< 100	**63.1**	**34 J**
PFMOAA	< 100	< 100	**104**	**54.9**
PFO2HxA	< 100	< 100	**84.6**	**25.9 J**
PFO3OA	< 100	< 100	<25	<25
PFO4DA	< 100	< 100	<75	<75
PFO5DA	< 100	< 100	<75	<75
PMPA	< 100	< 100	**150**	**56.4**
PEPA	< 500	< 500	**43.4 J**	<25
PS Acid	< 100	< 100	<25	<25
Hydro-PS Acid	< 100	< 100	<25	<25
R-PSDA	< 100	< 100	<25	<25
Hydrolyzed PSDA	< 100	**130**	**245**	**25.7 J**
R-PSDCA	< 100	< 100	<25	<25
NVHOS	< 500	< 500	<25	<25
EVE Acid	< 100	< 100	<25	<25
Hydro-EVE Acid	< 100	< 100	<25	<25
R-EVE	< 100	< 100	<25	<25
PES	< 100	< 100	<25	<25
PFECA B	< 100	< 100	<25	<25
PFECA-G	< 100	< 100	<25	<25
Total Table 3+ Compounds (17 compounds)[1,2]	ND	ND	**450**	**170**
Total Table 3+ Compounds (20 compounds)[1]	ND	**130**	**690**	**200**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	March 2021	June 2020	June 2020
Location Description	Power Station Neutralization Tank	Power Station Neutralization Tank	DuPont process wastewater, PVF Plant 1	DuPont process wastewater, PVF Plant 2
Location ID	18B	18B	19A	19B
Field Sample ID	WWTP-18B-24-031021-D	WWTP-18B-5-031121	WWTP_LOC19A_060420	WWTP_LOC19B_060420
Sample Date	3/10/2021	3/11/2021	6/4/2020	6/4/2020
QA/QC	Field Duplicate	--	--	--
Analytical Laboratory	Enthalpy	Enthalpy	On-site laboratory	On-site laboratory
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	<25	**107**	< 100	< 100
PFMOAA	**54.4**	**162**	< 100	< 100
PFO2HxA	**26.3 J**	**119**	< 100	< 100
PFO3OA	<25	<25	< 100	< 100
PFO4DA	<75	<75	< 100	< 100
PFO5DA	<75	<75	< 100	< 100
PMPA	**59.9**	**176**	< 100	< 100
PEPA	<25	**39.8 J**	< 500	< 500
PS Acid	<25	<25	< 100	< 100
Hydro-PS Acid	<25	<25	< 100	< 100
R-PSDA	<25	<25	< 100	< 100
Hydrolyzed PSDA	**29 J**	**124**	< 100	< 100
R-PSDCA	<25	<25	< 100	< 100
NVHOS	<25	<25	< 500	< 500
EVE Acid	<25	<25	< 100	< 100
Hydro-EVE Acid	<25	<25	< 100	< 100
R-EVE	<25	<25	< 100	< 100
PES	<25	<25	< 100	< 100
PFECA B	<25	<25	< 100	< 100
PFECA-G	<25	<25	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**140**	**600**	ND	ND
Total Table 3+ Compounds (20 compounds)[1]	**170**	**730**	ND	ND

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	June 2020
Location Description	Manhole along Sanitary Sewer prior to WWTP	DuPont sanitary sewer prior to WWTP	Manhole along Terracotta Pipe prior to WWTP	Manhole along Terracotta Pipe prior to WWTP duplicate
Location ID	22-1	22-2	22-3	22-3
Field Sample ID	WWTP_LOC22_1_060420	WWTP_LOC22_2_060420	WWTP_LOC22_3_060520	WWTP_LOC22_3_060520_D
Sample Date	6/4/2020	6/4/2020	6/5/2020	6/5/2020
QA/QC	--	--	--	Field Duplicate
Analytical Laboratory	On-site laboratory	On-site laboratory	On-site laboratory	On-site laboratory
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**13880**	< 100	< 100	< 100
PFMOAA	**541**	< 100	< 100	< 100
PFO2HxA	**542**	< 100	< 100	< 100
PFO3OA	**255**	< 100	< 100	< 100
PFO4DA	**183**	< 100	< 100	< 100
PFO5DA	**173**	< 100	< 100	< 100
PMPA	**3,945**	**1,067**	< 100	< 100
PEPA	**2,173**	< 500	< 500	< 500
PS Acid	**412**	< 100	< 100	< 100
Hydro-PS Acid	**204**	< 100	< 100	< 100
R-PSDA	**1,412**	< 100	< 100	< 100
Hydrolyzed PSDA	**372**	< 100	**216**	**213**
R-PSDCA	< 100	< 100	< 100	< 100
NVHOS	< 500	< 500	< 500	< 500
EVE Acid	< 100	< 100	< 100	< 100
Hydro-EVE Acid	< 100	< 100	< 100	< 100
R-EVE	**144**	< 100	< 100	< 100
PES	< 100	< 100	< 100	< 100
PFECA B	< 100	< 100	< 100	< 100
PFECA-G	< 100	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**22,000**	**1,100**	ND	ND
Total Table 3+ Compounds (20 compounds)[1]	**24,000**	**1,100**	**220**	**210**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	June 2020	June 2020
Location Description	**Manhole along Terracotta Pipe**	**Kuraray laboratory process wastewater**	**Chemours PPA acid suit washing machines**	**Chemours PPA nomex suit washing machines**
Location ID	**23A**	**23A-2**	**23A-3-ACID**	**23A-3-NOM**
Field Sample ID	**WWTP_LOC23A_060520**	**WWTP_LOC23A_2_060520**	**WWTP_LOC23A_3_ACID_060420**	**WWTP_LOC23A_3_NOM_060420**
Sample Date	**6/5/2020**	**6/5/2020**	**6/4/2020**	**6/4/2020**
QA/QC	--	--	--	--
Analytical Laboratory	**On-site laboratory**	**On-site laboratory**	**On-site laboratory**	**On-site laboratory**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)				
HFPO-DA	**513**	< 100	**689429**	**68683**
PFMOAA	**1798**	< 100	< 100	< 100
PFO2HxA	**459**	< 100	**137**	< 100
PFO3OA	**167**	< 100	< 100	< 100
PFO4DA	< 100	< 100	< 100	< 100
PFO5DA	< 100	< 100	< 100	< 100
PMPA	< 100	< 100	**256**	**127**
PEPA	< 500	< 500	< 500	< 500
PS Acid	**31027**	< 100	< 100	< 100
Hydro-PS Acid	**1200**	< 100	< 100	< 100
R-PSDA	**331**	< 100	**138**	< 100
Hydrolyzed PSDA	**9967**	< 100	< 100	< 100
R-PSDCA	< 100	< 100	< 100	< 100
NVHOS	< 500	< 500	< 500	< 500
EVE Acid	**461**	< 100	< 100	< 100
Hydro-EVE Acid	< 100	< 100	< 100	< 100
R-EVE	< 100	< 100	< 100	< 100
PES	< 100	< 100	< 100	< 100
PFECA B	< 100	< 100	< 100	< 100
PFECA-G	< 100	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**36,000**	ND	**690,000**	**69,000**
Total Table 3+ Compounds (20 compounds)[1]	**46,000**	ND	**690,000**	**69,000**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	May/June 2020	May/June 2020
Location Description	**Chemours Monomers IXM Building 29 nomex suit washing machines**	**WWTP Activated Sludge**	**WWTP Activated Sludge**
Location ID	**24D-3-NOM**	**AS-1 Filtrate**	**AS-1 Solids**
Field Sample ID	**WWTP_LOC24D_3_NOM_060420**	**TestAmerica**	**TestAmerica**
Sample Date	**6/4/2020**	**6/4/2020**	**6/4/2020**
QA/QC	**--**	**--**	**--**
Analytical Laboratory	**On-site laboratory**	**TestAmerica**	**TestAmerica**
Units	**ng/L**	**ng/L**	**ng/kg**
Table 3+ SOP (ng/L)		**--**	**--**
HFPO-DA	**761**	**220**	<1,000
PFMOAA	**890**	**120**	**2100**
PFO2HxA	**26560**	**68**	<1,000
PFO3OA	**282**	**39**	<1,000
PFO4DA	**209**	**21**	<1,000
PFO5DA	**125**	**8**	**2700**
PMPA	**446**	**97**	<1,000
PEPA	< 500	**35**	<1,000
PS Acid	< 100	**2**	**10000**
Hydro-PS Acid	**154**	**16**	**45000**
R-PSDA	**755**	**77**	**6100**
Hydrolyzed PSDA	< 100	**510**	**38000**
R-PSDCA	< 100	<2	<1,000
NVHOS	< 500	**15**	**1500**
EVE Acid	< 100	<2	<1,000
Hydro-EVE Acid	< 100	**3**	<1,000
R-EVE	< 100	**5**	<1,000
PES	< 100	<2	<1,000
PFECA B	< 100	<2	<1,000
PFECA-G	< 100	<2	<1,000
Total Table 3+ Compounds (17 compounds)[1,2]	**29,000**	**640**	**61,000**
Total Table 3+ Compounds (20 compounds)[1]	**30,000**	**1,200**	**110,000**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

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TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	May/June 2020	May/June 2020	May/June 2020
Location Description	WWTP Activated Sludge	WWTP Activated Sludge	WWTP Activated Sludge
Location ID	AS-1 Total	AS-1 Filtrate	AS-1 Solids
Field Sample ID	TestAmerica	TestAmerica	TestAmerica
Sample Date	6/4/2020	6/4/2020	6/4/2020
QA/QC	--	--	--
Analytical Laboratory	TestAmerica	TestAmerica	TestAmerica
Units	ng/kg	ng/L	ng/kg
Table 3+ SOP (ng/L)	--	--	--
HFPO-DA	<1,000	**220**	<1,000
PFMOAA	<1,000	**110**	<1,000
PFO2HxA	<1,000	**73**	<1,000
PFO3OA	<1,000	**33**	<1,000
PFO4DA	<1,000	**18**	<1,000
PFO5DA	<1,000	**13**	**1900**
PMPA	<1,000	**69**	<1,000
PEPA	<1,000	**32**	<1,000
PS Acid	**1500**	**3**	**6300**
Hydro-PS Acid	**5600**	**38**	**28000**
R-PSDA	<1,000	**53**	**3000**
Hydrolyzed PSDA	**3400**	**370**	**18000**
R-PSDCA	<1,000	<2	<1,000
NVHOS	<1,000	**15**	**1000**
EVE Acid	<1,000	<2	<1,000
Hydro-EVE Acid	<1,000	**3**	<1,000
R-EVE	<1,000	**2**	<1,000
PES	<1,000	<2	<1,000
PFECA B	<1,000	<2	<1,000
PFECA-G	<1,000	<2	<1,000
Total Table 3+ Compounds (17 compounds)[1,2]	**7,100**	**630**	**37,000**
Total Table 3+ Compounds (20 compounds)[1]	**11,000**	**1,100**	**58,000**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	May/June 2020	May/June 2020	May/June 2020
Location Description	**WWTP Activated Sludge**	**WWTP Activated Sludge**	**WWTP Activated Sludge**
Location ID	**AS-1 Total**	**AS-1 Filtrate**	**AS-1 Solids**
Field Sample ID	**TestAmerica**	**TestAmerica**	**TestAmerica**
Sample Date	**6/4/2020**	**6/4/2020**	**6/4/2020**
QA/QC	**--**	**--**	**--**
Analytical Laboratory	**TestAmerica**	**TestAmerica**	**TestAmerica**
Units	**ng/kg**	**ng/L**	**ng/kg**
Table 3+ SOP (ng/L)	**--**	**--**	**--**
HFPO-DA	<1,000	**210**	**1500**
PFMOAA	<1,000	**110**	**5100**
PFO2HxA	<1,000	**69**	**1700**
PFO3OA	<1,000	**34**	**1600**
PFO4DA	<1,000	**16**	**2300**
PFO5DA	<1,000	**9**	**5700**
PMPA	<1,000	**69**	<1,000
PEPA	<1,000	**32**	<1,000
PS Acid	**1000**	**2**	**21000**
Hydro-PS Acid	**4500**	**25**	**94000**
R-PSDA	<1,000	**60**	**13000**
Hydrolyzed PSDA	**3100**	**400**	**91000**
R-PSDCA	<1,000	<2	**2000**
NVHOS	<1,000	**14**	**4300**
EVE Acid	<1,000	<2	<1,000
Hydro-EVE Acid	<1,000	**2**	<1,000
R-EVE	<1,000	**3**	<1,000
PES	<1,000	<2	<1,000
PFECA B	<1,000	<2	<1,000
PFECA-G	<1,000	<2	<1,000
Total Table 3+ Compounds (17 compounds)[1,2]	**5,500**	**590**	**140,000**
Total Table 3+ Compounds (20 compounds)[1]	**8,600**	**1,100**	**240,000**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	May/June 2020	March 2021	March 2021
Location Description	**WWTP Activated Sludge**	**Central Sanitary Lift Station**	**Central Sanitary Lift Station**
Location ID	**AS-1 Total**	**LS-1-24**	**LS-1-24**
Field Sample ID	**TestAmerica**	**WWTP-LS-1-24-030521**	**WWTP-LS-1-24-031021**
Sample Date	**6/4/2020**	**3/5/2021**	**3/10/2021**
QA/QC	**--**	**--**	**--**
Analytical Laboratory	**TestAmerica**	**Enthalpy**	**Enthalpy**
Units	**ng/kg**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)	**--**		
HFPO-DA	<1,000	**2620**	**4840**
PFMOAA	<1,000	**1770**	**754**
PFO2HxA	<1,000	**608**	**259**
PFO3OA	<1,000	**191**	**74.6**
PFO4DA	<1,000	<75	<75
PFO5DA	<1,000	<75	<75
PMPA	<1,000	**347**	**267**
PEPA	<1,000	**69.6**	**77.1**
PS Acid	<1,000	**139**	**287**
Hydro-PS Acid	**4000**	<25	**112**
R-PSDA	<1,000	**797**	**1640**
Hydrolyzed PSDA	**2400**	**1310**	**2800**
R-PSDCA	<1,000	<25	<25
NVHOS	<1,000	**32.4 J**	**42.1 J**
EVE Acid	<1,000	<25	**70.9**
Hydro-EVE Acid	<1,000	<25	**36.7 J**
R-EVE	<1,000	**198**	**189**
PES	<1,000	<25	<25
PFECA B	<1,000	<25	<25
PFECA-G	<1,000	<25	<25
Total Table 3+ Compounds (17 compounds)[1,2]	**4,000**	**5,700**	**6,800**
Total Table 3+ Compounds (20 compounds)[1]	**6,400**	**8,100**	**11,000**

Notes:
1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE
Bold - Analyte detected above associated reporting limit
J - Analyte detected. Reported value may not be accurate or precise
ND - No Table 3+ compounds were detected above their associated reporting limits.
ng/L - nanograms per liter
ng/kg - nanograms per kilogram
QA/QC - Quality assurance/ quality control
SOP - standard operating procedure
< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	March 2021	March 2021	March 2021
Location Description	Central Sanitary Lift Station	Central Sanitary Lift Station	DuPont Sanitary Lift Station	DuPont Sanitary Lift Station
Location ID	LS-1-24	LS-1-24	LS-2-24	LS-2-24
Field Sample ID	WWTP-LS-1-24-031221	WWTP-LS-1-24-031221-D	WWTP-LS-2-24-030521	WWTP-LS-2-24-031021
Sample Date	3/12/2021	3/12/2021	3/5/2021	3/10/2021
QA/QC	--	Field Duplicate	--	--
Analytical Laboratory	Enthalpy	Enthalpy	Enthalpy	Enthalpy
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**9000**	**8690**	**107**	**108**
PFMOAA	**600**	**565**	**54.4**	**32 J**
PFO2HxA	**315**	**306**	**60.1**	**46.9 J**
PFO3OA	**132**	**126**	<25	<25
PFO4DA	<75	<75	<75	<75
PFO5DA	<75	<75	<75	<75
PMPA	**314**	**312**	**414**	**440**
PEPA	**58.3**	**56**	**117**	**115**
PS Acid	**318**	**327**	<25	<25
Hydro-PS Acid	**56.9**	**47.3 J**	<25	<25
R-PSDA	**811**	**866**	**146**	<25
Hydrolyzed PSDA	**2250**	**2240**	**42.3 J**	<25
R-PSDCA	<25	<25	<25	<25
NVHOS	**29.8 J**	<25	<25	<25
EVE Acid	**29.6 J**	**26.7 J**	<25	<25
Hydro-EVE Acid	<25	<25	<25	<25
R-EVE	**192**	**220**	**27.3 J**	<25
PES	<25	<25	<25	<25
PFECA B	<25	<25	<25	<25
PFECA-G	<25	<25	<25	<25
Total Table 3+ Compounds (17 compounds)[1,2]	**11,000**	**10,000**	**750**	**740**
Total Table 3+ Compounds (20 compounds)[1]	**14,000**	**14,000**	**970**	**740**

Notes:
1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE
Bold - Analyte detected above associated reporting limit
J - Analyte detected. Reported value may not be accurate or precise
ND - No Table 3+ compounds were detected above their associated reporting limits.
ng/L - nanograms per liter
ng/kg - nanograms per kilogram
QA/QC - Quality assurance/ quality control
SOP - standard operating procedure
< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	March 2021	March 2021	March 2021
Location Description	DuPont Sanitary Lift Station	DuPont Laboratory Lift station	DuPont Laboratory Lift station	DuPont Laboratory Lift station
Location ID	LS-2-24	LS-3-PVF	LS-3-PVF	LS-3-PVF
Field Sample ID	WWTP-LS-2-24-031221	WWTP-LS-3-PVF-031121	WWTP-LS-3-PVF-031621	WWTP-LS-3-PVF-031821
Sample Date	3/12/2021	3/11/2021	3/16/2021	3/18/2021
QA/QC	--	--	--	--
Analytical Laboratory	Enthalpy	Enthalpy	Enthalpy	Enthalpy
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**116**	<25	**134**	**166000**
PFMOAA	**53.8**	<25	<25	**2330**
PFO2HxA	**42.1 J**	<25	<25	**2930**
PFO3OA	<25	<25	<25	**313**
PFO4DA	<75	<75	<75	**145**
PFO5DA	<75	<75	<75	<75
PMPA	**615**	**226**	**2040**	**17400**
PEPA	**171**	**68.4**	**680**	**4850**
PS Acid	<25	<25	<25	<25
Hydro-PS Acid	<25	<25	<25	**166**
R-PSDA	**142**	<25	<25	**675**
Hydrolyzed PSDA	**39.5 J**	<25	<25	**15100**
R-PSDCA	<25	<25	<25	<25
NVHOS	<25	<25	<25	**639**
EVE Acid	<25	<25	<25	<25
Hydro-EVE Acid	<25	<25	<25	**165**
R-EVE	**39.1 J**	<25	<25	**219**
PES	<25	<25	<25	<25
PFECA B	<25	<25	<25	<25
PFECA-G	<25	<25	<25	<25
Total Table 3+ Compounds (17 compounds)[1,2]	**1000**	**290**	**2,900**	**190,000**
Total Table 3+ Compounds (20 compounds)[1]	**1,200**	**290**	**2,900**	**210,000**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	March 2021	March 2021	March 2021
Location Description	SentryGlas® and PPA Sanitary Effluent	SentryGlas® and PPA Sanitary Effluent	SentryGlas® and PPA Sanitary Effluent	Kuraray Trosifol and Lab Sanitary Effluent
Location ID	MH-1	MH-1	MH-1	MH-2-24
Field Sample ID	WWTP-MH-1-24-030521	WWTP-MH-1-24-031021	WWTP-MH-1-5-031121	WWTP-MH-2-24-030521
Sample Date	3/5/2021	3/10/2021	3/11/2021	3/5/2021
QA/QC	--	--	--	--
Analytical Laboratory	Enthalpy	Enthalpy	Enthalpy	Enthalpy
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**3730**	**15200**	**42700**	**50.9**
PFMOAA	**52**	**43.9 J**	**49.2 J**	**43.7 J**
PFO2HxA	**30.2 J**	<25	<25	**28 J**
PFO3OA	<25	<25	<25	<25
PFO4DA	<75	<75	<75	<75
PFO5DA	<75	<75	<75	<75
PMPA	**170**	**151**	**179**	**239**
PEPA	<25	<25	**30.1 J**	**29.7 J**
PS Acid	<25	<25	<25	<25
Hydro-PS Acid	<25	<25	<25	<25
R-PSDA	<25	<25	**123 J**	**158**
Hydrolyzed PSDA	**111**	**115**	**115**	**136**
R-PSDCA	<25	<25	<25	<25
NVHOS	<25	<25	<25	<25
EVE Acid	<25	<25	<25	<25
Hydro-EVE Acid	<25	<25	<25	<25
R-EVE	<25	<25	<25	**38.6 J**
PES	<25	<25	<25	<25
PFECA B	<25	<25	<25	<25
PFECA-G	<25	<25	<25	<25
Total Table 3+ Compounds (17 compounds)[1,2]	**4,000**	**15,000**	**43,000**	**390**
Total Table 3+ Compounds (20 compounds)[1]	**4,100**	**16,000**	**43,000**	**720**

Notes:
1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE
Bold - Analyte detected above associated reporting limit
J - Analyte detected. Reported value may not be accurate or precise
ND - No Table 3+ compounds were detected above their associated reporting limits.
ng/L - nanograms per liter
ng/kg - nanograms per kilogram
QA/QC - Quality assurance/ quality control
SOP - standard operating procedure
< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	March 2021	March 2021	March 2021
Location Description	Kuraray Trosifol and Lab Sanitary Effluent	Kuraray Trosifol and Lab Sanitary Effluent	Kuraray Trosifol and Lab Sanitary Effluent	Sanitary Pipe Manhole Upstream of WWTP - Butacite
Location ID	MH-2-24	MH-2-24	MH-2-24	MH-3
Field Sample ID	WWTP-MH-2-24-030521-D	WWTP-MH-2-24-031021	WWTP-MH-2-24-031221	WWTP-MH-3-030521
Sample Date	3/5/2021	3/10/2021	3/12/2021	3/5/2021
QA/QC	--	--	--	--
Analytical Laboratory	Enthalpy	Enthalpy	Enthalpy	Enthalpy
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**66.6**	**39.4 J**	<25	**745**
PFMOAA	**27.4 J**	**31.5 J**	**34.2 J**	**387**
PFO2HxA	<25	<25	<25	**95.8**
PFO3OA	<25	<25	<25	**31.9 J**
PFO4DA	<75	<75	<75	<75
PFO5DA	<75	<75	<75	<75
PMPA	**246**	**429**	**296**	**160**
PEPA	<25	<25	<25	**32 J**
PS Acid	<25	<25	**40.3 J**	**62.9**
Hydro-PS Acid	<25	<25	<25	<25
R-PSDA	**233**	<25	**165**	**508**
Hydrolyzed PSDA	**89.1**	**46.3 J**	**56.7**	**335**
R-PSDCA	<25	<25	<25	<25
NVHOS	<25	<25	<25	<25
EVE Acid	<25	<25	<25	<25
Hydro-EVE Acid	<25	<25	<25	<25
R-EVE	<25	<25	<25	**75.1**
PES	<25	<25	<25	<25
PFECA B	<25	<25	<25	<25
PFECA-G	<25	<25	<25	<25
Total Table 3+ Compounds (17 compounds)[1,2]	**340**	**500**	**370**	**1,500**
Total Table 3+ Compounds (20 compounds)[1]	**660**	**550**	**590**	**2,400**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	March 2021	March 2021	March 2021
Location Description	Sanitary Pipe Manhole Upstream of WWTP - Butacite	Sanitary Pipe Manhole Upstream of WWTP - Butacite	Chemours IXM Sanitary Effluent	Chemours IXM Sanitary Effluent
Location ID	MH-3	MH-3	MH-4-24	MH-4-24
Field Sample ID	WWTP-MH-3-24-031021	WWTP-MH-3-17-031221	WWTP-MH-24-4-030521	WWTP-MH-4-24-031021
Sample Date	3/10/2021	3/12/2021	3/5/2021	3/10/2021
QA/QC	--	--	--	--
Analytical Laboratory	Enthalpy	Enthalpy	Enthalpy	Enthalpy
Units	ng/L	ng/L	ng/L	ng/L
Table 3+ SOP (ng/L)				
HFPO-DA	**1170**	**5110**	**2710**	**7200**
PFMOAA	**201**	**2010**	**16500**	**3070**
PFO2HxA	**153**	**602**	**4560**	**1120**
PFO3OA	**39.4 J**	**222**	**1060**	**272**
PFO4DA	<75	**93.1 J**	**430**	**95.8 J**
PFO5DA	<75	<75	**270**	**200**
PMPA	**166**	**477**	**992**	**777**
PEPA	**34.7 J**	**130**	**302**	**284**
PS Acid	**63.1**	**1000**	**2140**	**1580**
Hydro-PS Acid	<25	**140**	**375**	**304**
R-PSDA	**202**	**2210**	**6820**	**5600**
Hydrolyzed PSDA	**502**	**7230**	**19100**	**13800**
R-PSDCA	<25	<25	**35.6 J**	**34.7 J**
NVHOS	<25	**62.7**	**165**	**139**
EVE Acid	<25	**78.7**	**103**	**271**
Hydro-EVE Acid	<25	**35.1 J**	**78.7**	**113**
R-EVE	**45.4 J**	**446**	**1290**	**709**
PES	<25	<25	**43.3 J**	<25
PFECA B	<25	<25	<25	<25
PFECA-G	<25	<25	<25	<25
Total Table 3+ Compounds (17 compounds)[1,2]	**1,800**	**9,900**	**30,000**	**15,000**
Total Table 3+ Compounds (20 compounds)[1]	**2,600**	**20,000**	**57,000**	**36,000**

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	April/May 2021	April/May 2021	April/May 2021
Location Description	**Chemours IXM Sanitary Effluent**	**Kuraray SentryGlas**	**Kuraray SentryGlas**	**Kuraray Lab**
Location ID	**MH-4-24**	**23C-1**	**23C-1**	**23C-2**
Field Sample ID	**WWTP-MH-4-24-031221**	**STW-LOC-23C-1-050421**	**STW-LOC-23C-1-050421-D**	**STW-LOC-23C-2-042621**
Sample Date	**3/12/2021**	**05/04/2021**	**05/04/2021**	**04/26/2021**
QA/QC	**--**	**--**	**Field Duplicate**	**--**
Analytical Laboratory	**Enthalpy**	**TestAmerica**	**TestAmerica**	**TestAmerica**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)				
HFPO-DA	**3440**	**26**	**27**	**27**
PFMOAA	**3700**	**7.4**	**6.8**	**24**
PFO2HxA	**1010**	**20**	**20**	**24**
PFO3OA	**340**	**4.5**	**4.5**	**3.4**
PFO4DA	**159**	**2.8**	**2.6**	<2.0
PFO5DA	**157**	<2.0	<2.0	<2.0
PMPA	**590**	**36**	**34**	**46**
PEPA	**210**	<20	<20	<20
PS Acid	**1840**	**38**	**38**	<2.0
Hydro-PS Acid	**260**	**2.9**	**3**	<2.0
R-PSDA	**8970**	**15**	**18**	<2.0
Hydrolyzed PSDA	**16200**	**130**	**150**	**7.9**
R-PSDCA	**33.9 J**	<2.0	<2.0	<2.0
NVHOS	**108**	**5.2**	**5.5**	**4.3**
EVE Acid	**162**	<2.0	<2.0	<2.0
Hydro-EVE Acid	**76.3**	**3.1**	**2.8**	<2.0
R-EVE	**1370**	<2.0	<2.0	<2.0
PES	<25	<2.0	<2.0	<2.0
PFECA B	<25	<2.0	<2.0	<2.0
PFECA-G	<25	<2.0	<2.0	<2.0
Total Table 3+ Compounds (17 compounds)[1,2]	**12,000**	**150**	**140**	**130**
Total Table 3+ Compounds (20 compounds)[1]	**39,000**	**290**	**310**	**140**

Notes:
1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE
Bold - Analyte detected above associated reporting limit
J - Analyte detected. Reported value may not be accurate or precise
ND - No Table 3+ compounds were detected above their associated reporting limits.
ng/L - nanograms per liter
ng/kg - nanograms per kilogram
QA/QC - Quality assurance/ quality control
SOP - standard operating procedure
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TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	April/May 2021	June 2020	June 2020	June 2020
Location Description	**Kuraray Lab**	**Equipment Blank - Dip Rod**	**Equipment Blank - ##**	**Equipment Blank - Autosampler**
Location ID	**23C-2**	**EB**	**EB**	**EB**
Field Sample ID	**STW-LOC-23C-2-042621-D**	**WWTP_EB_DR_060420**	**WWTP_EB_PP_060420**	**WWTP_EB_ISCO_060420**
Sample Date	**04/26/2021**	**6/4/2020**	**6/4/2020**	**6/4/2020**
QA/QC	**Field Duplicate**	**Equipment Blank**	**Equipment Blank**	**Equipment Blank**
Analytical Laboratory	**TestAmerica**	**On-site laboratory**	**On-site laboratory**	**On-site laboratory**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)				
HFPO-DA	**28**	< 100	< 100	< 100
PFMOAA	**25**	< 100	< 100	< 100
PFO2HxA	**24**	< 100	< 100	< 100
PFO3OA	**3.7**	< 100	< 100	< 100
PFO4DA	<2.0	< 100	< 100	< 100
PFO5DA	<2.0	< 100	< 100	< 100
PMPA	**41**	< 100	< 100	< 100
PEPA	<20	< 500	< 500	< 500
PS Acid	<2.0	< 100	< 100	< 100
Hydro-PS Acid	<2.0	< 100	< 100	< 100
R-PSDA	**8.6 J**	< 100	< 100	< 100
Hydrolyzed PSDA	**7.9**	< 100	< 100	< 100
R-PSDCA	<2.0	< 100	< 100	< 100
NVHOS	**4.7**	< 500	< 500	< 500
EVE Acid	<2.0	< 100	< 100	< 100
Hydro-EVE Acid	<2.0	< 100	< 100	< 100
R-EVE	<2.0	< 100	< 100	< 100
PES	<2.0	< 100	< 100	< 100
PFECA B	<2.0	< 100	< 100	< 100
PFECA-G	<2.0	< 100	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	**130**	ND	ND	ND
Total Table 3+ Compounds (20 compounds)[1]	**140**	ND	ND	ND

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	June 2020	June 2020	March 2021	March 2021
Location Description	**Equipment Blank - Autosampler**	**Equipment Blank - Autosampler**	**Equipment Blank - Autosampler**	**Equipment Blank - Autosampler**
Location ID	**EB**	**EB**	**EB**	**EB**
Field Sample ID	**WWTP_EB_ISCO_061020**	**WWTP_EB_ISCO_061820**	**WWTP-EQBLK-IS-030521**	**WWTP-EQBLK-IS-031021**
Sample Date	**6/10/2020**	**6/18/2020**	**3/5/2021**	**3/10/2021**
QA/QC	**Equipment Blank**	**Equipment Blank**	**Equipment Blank**	**Equipment Blank**
Analytical Laboratory	**On-site laboratory**	**On-site laboratory**	**Enthalpy**	**Enthalpy**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)				
HFPO-DA	< 100	< 100	<25	<25
PFMOAA	< 100	< 100	<25	<25
PFO2HxA	< 100	< 100	<25	<25
PFO3OA	< 100	< 100	<25	<25
PFO4DA	< 100	< 100	<75	<75
PFO5DA	< 100	< 100	<75	<75
PMPA	< 100	< 100	<25	<25
PEPA	< 500	< 500	<25	<25
PS Acid	< 100	< 100	<25	<25
Hydro-PS Acid	< 100	< 100	<25	<25
R-PSDA	< 100	< 100	<25	<25
Hydrolyzed PSDA	< 100	< 100	<25	<25
R-PSDCA	< 100	< 100	<25	<25
NVHOS	< 500	< 500	<25	<25
EVE Acid	< 100	< 100	<25	<25
Hydro-EVE Acid	< 100	< 100	<25	<25
R-EVE	< 100	< 100	<25	<25
PES	< 100	< 100	<25	<25
PFECA B	< 100	< 100	<25	<25
PFECA-G	< 100	< 100	<25	<25
Total Table 3+ Compounds (17 compounds)[1,2]	ND	ND	ND	ND
Total Table 3+ Compounds (20 compounds)[1]	ND	ND	ND	ND

Notes:
1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE
Bold - Analyte detected above associated reporting limit
J - Analyte detected. Reported value may not be accurate or precise
ND - No Table 3+ compounds were detected above their associated reporting limits.
ng/L - nanograms per liter
ng/kg - nanograms per kilogram
QA/QC - Quality assurance/ quality control
SOP - standard operating procedure
< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	March 2021	June 2020	June 2020
Location Description	**Equipment Blank - Autosampler**	**Equipment Blank - Autosampler**	**Field Blank**	**Field Blank**
Location ID	**EB**	**EB**	**FB**	**FB**
Field Sample ID	**WWTP-EQBLK-IS-031121**	**WWTP-EQBLK-PP-031121**	**WWTP_FB_060420**	**WWTP_FB_061820**
Sample Date	**3/11/2021**	**3/11/2021**	**6/4/2020**	**6/18/2020**
QA/QC	**Equipment Blank**	**Equipment Blank**	**Field Blank**	**Field Blank**
Analytical Laboratory	**Enthalpy**	**Enthalpy**	**On-site laboratory**	**On-site laboratory**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)				
HFPO-DA	<25	<25	< 100	< 100
PFMOAA	<25	<25	< 100	< 100
PFO2HxA	<25	<25	< 100	< 100
PFO3OA	<25	<25	< 100	< 100
PFO4DA	<75	<75	< 100	< 100
PFO5DA	<75	<75	< 100	< 100
PMPA	<25	<25	< 100	< 100
PEPA	<25	<25	< 500	< 500
PS Acid	<25	<25	< 100	< 100
Hydro-PS Acid	<25	<25	< 100	< 100
R-PSDA	<25	<25	< 100	< 100
Hydrolyzed PSDA	<25	<25	< 100	< 100
R-PSDCA	<25	<25	< 100	< 100
NVHOS	<25	<25	< 500	< 500
EVE Acid	<25	<25	< 100	< 100
Hydro-EVE Acid	<25	<25	< 100	< 100
R-EVE	<25	<25	< 100	< 100
PES	<25	<25	< 100	< 100
PFECA B	<25	<25	< 100	< 100
PFECA-G	<25	<25	< 100	< 100
Total Table 3+ Compounds (17 compounds)[1,2]	ND	ND	ND	ND
Total Table 3+ Compounds (20 compounds)[1]	ND	ND	ND	ND

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	March 2021	March 2021	March 2021	April/May 2021
Location Description	**Field Blank**	**Field Blank**	**Field Blank**	**Trip Blank**
Location ID	**FB**	**FB**	**FB**	**TB**
Field Sample ID	**WWTP-FBLK-030421**	**WWTP-FBLK-031021**	**WWTP-FBLK-031121**	**STW-LOC-TB-042621**
Sample Date	**3/4/2021**	**3/10/2021**	**3/11/2021**	**04/26/2021**
QA/QC	**Field Blank**	**Field Blank**	**Field Blank**	**Trip Blank**
Analytical Laboratory	**Enthalpy**	**Enthalpy**	**Enthalpy**	**TestAmerica**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)				
HFPO-DA	<25	<25	<25	<2.0
PFMOAA	<25	<25	<25	<2.0
PFO2HxA	<25	<25	<25	<2.0
PFO3OA	<25	<25	<25	<2.0
PFO4DA	<75	<75	<75	<2.0
PFO5DA	<75	<75	<75	<2.0
PMPA	<25	<25	<25	<10
PEPA	<25	<25	<25	<20
PS Acid	<25	<25	<25	<2.0
Hydro-PS Acid	<25	<25	<25	<2.0
R-PSDA	<25	<25	<25	<2.0
Hydrolyzed PSDA	<25	<25	<25	<2.0
R-PSDCA	<25	<25	<25	<2.0
NVHOS	<25	<25	<25	<2.0
EVE Acid	<25	<25	<25	<2.0
Hydro-EVE Acid	<25	<25	<25	<2.0
R-EVE	<25	<25	<25	<2.0
PES	<25	<25	<25	<2.0
PFECA B	<25	<25	<25	<2.0
PFECA-G	<25	<25	<25	<2.0
Total Table 3+ Compounds (17 compounds)[1,2]	ND	ND	ND	ND
Total Table 3+ Compounds (20 compounds)[1]	ND	ND	ND	ND

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

TABLE 3
June 2020 and March to April 2021 Sampling Events Analytical Results
Chemours Fayetteville Works, North Carolina

Sample Event	April/May 2021	April/May 2021
Location Description	**Equipment Blank - Autosampler**	**Field Blank**
Location ID	**EB**	**FB**
Field Sample ID	**STW-LOC-EB-042621**	**STW-LOC-FB-042621**
Sample Date	**04/26/2021**	**04/26/2021**
QA/QC	**Equipment Blank**	**Field Blank**
Analytical Laboratory	**TestAmerica**	**TestAmerica**
Units	**ng/L**	**ng/L**
Table 3+ SOP (ng/L)		
HFPO-DA	<2.0	<2.0
PFMOAA	<2.0	<2.0
PFO2HxA	<2.0	<2.0
PFO3OA	<2.0	<2.0
PFO4DA	<2.0	<2.0
PFO5DA	<2.0	<2.0
PMPA	<10	<10
PEPA	<20	<20
PS Acid	<2.0	<2.0
Hydro-PS Acid	<2.0	<2.0
R-PSDA	<2.0	<2.0
Hydrolyzed PSDA	<2.0	<2.0
R-PSDCA	<2.0	<2.0
NVHOS	<2.0	<2.0
EVE Acid	<2.0	<2.0
Hydro-EVE Acid	<2.0	<2.0
R-EVE	<2.0	<2.0
PES	<2.0	<2.0
PFECA B	<2.0	<2.0
PFECA-G	<2.0	<2.0
Total Table 3+ Compounds (17 compounds)[1,2]	ND	ND
Total Table 3+ Compounds (20 compounds)[1]	ND	ND

Notes:

1 - Total Table 3+ was calculated including J qualified data but not non-detect data. The total Table 3+ sum is rounded to two significant figures.

2 - Total Table 3+ (17 Compounds) does not include R-PSDA, Hydrolyzed PSDA and R-EVE

Bold - Analyte detected above associated reporting limit

J - Analyte detected. Reported value may not be accurate or precise

ND - No Table 3+ compounds were detected above their associated reporting limits.

ng/L - nanograms per liter

ng/kg - nanograms per kilogram

QA/QC - Quality assurance/ quality control

SOP - standard operating procedure

< - Analyte not detected above associated reporting limit.

Geosyntec consultants

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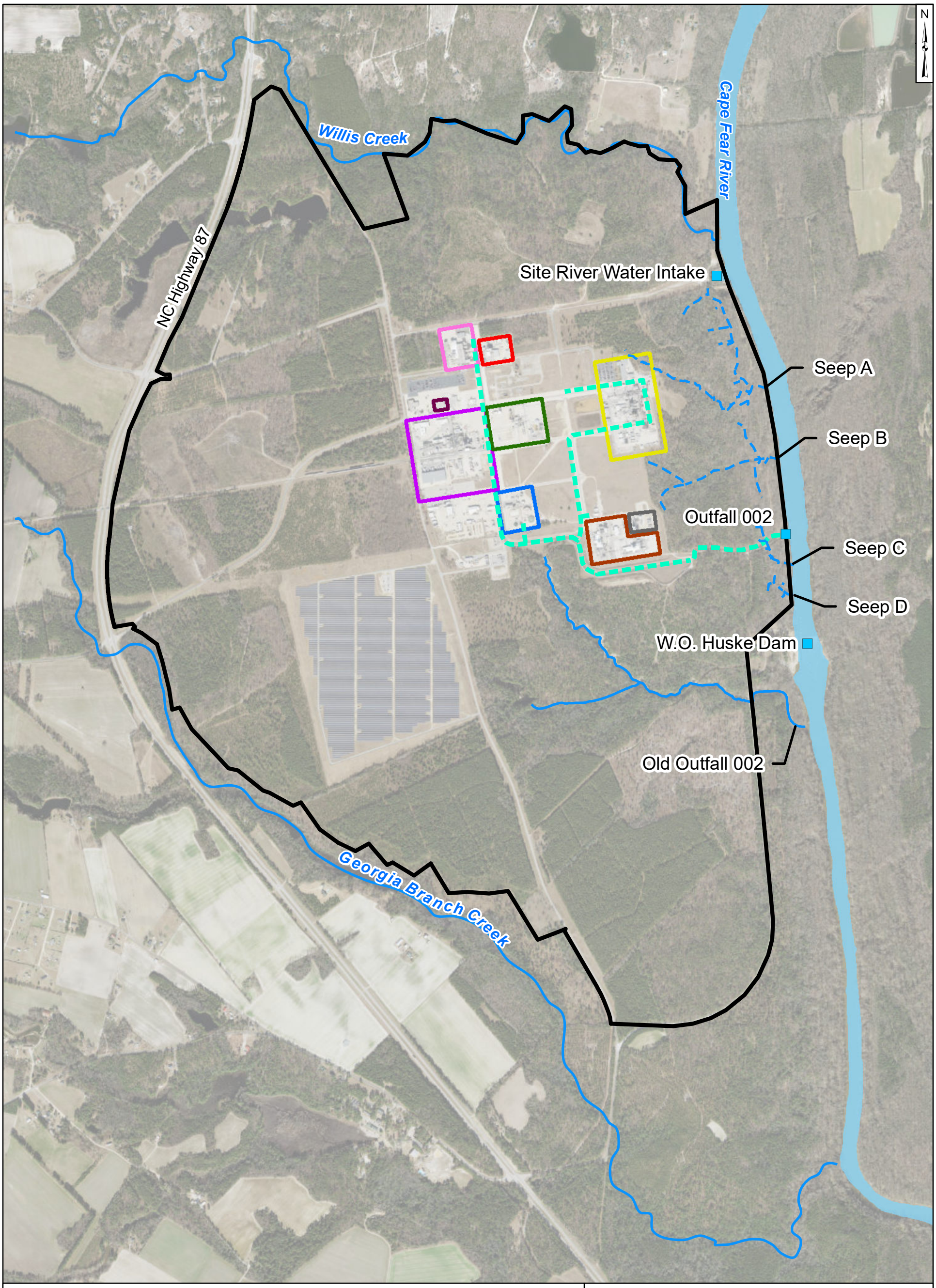
FIGURES



Legend

- Site Features
- Site Boundary
- Nearby Tributary
- Observed Seep (Natural Drainage)
- Site Drainage Network

Areas at Site

- Chemours Monomers IXM
- Chemours Polymer Processing Aid Area
- DuPont Polyvinyl Fluoride Leased Area
- Former DuPont PMDF Area
- Kuraray SentryGlas® Leased Area
- Kuraray Trosifol® Leased Area
- Wastewater Treatment Plant
- Power - Filtered and Demineralized Water Production
- Kuraray Laboratory

Notes:
1. The outline of Cape Fear River is approximate and is based on open data from ArcGIS Online and North Carolina Department of Environmental Quality Online GIS (MajorHydro shapefile).
2. Basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

2,000 1,000 0 2,000 Feet

Site Location Map

Chemours Fayetteville Works, North Carolina

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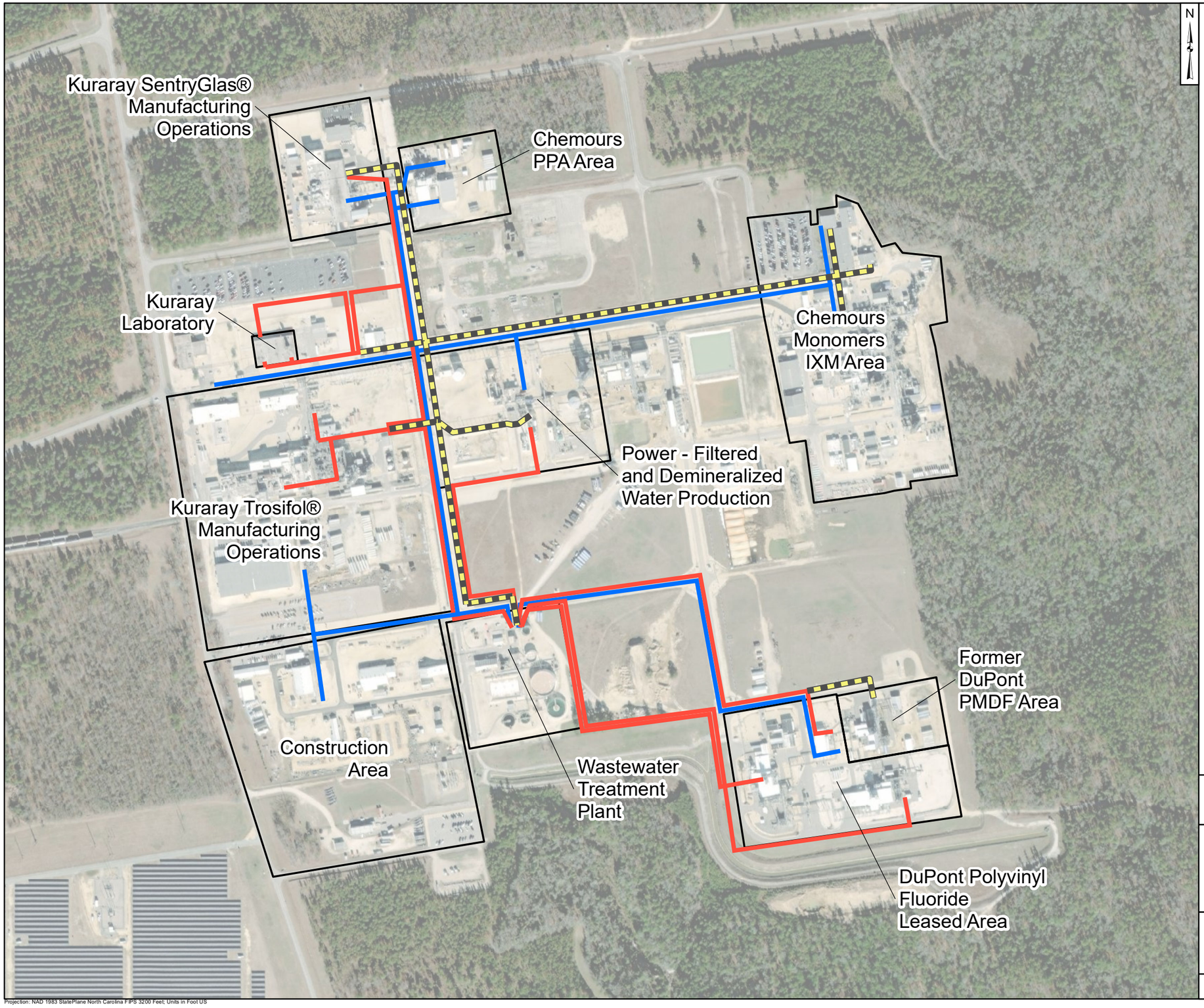
Figure 1



N

Legend

- Abandoned/Decommissioned Chemical Sewer
- Process Sewer
- Sanitary Sewer

Notes:

1. Piping layout is for illustrative purposes only and may not reflect exact pipe locations
2. Aerial imagery provided by Esri basemaps (2020).

500 250 0 500 Feet

Process and Sanitary Sewer Network

Chemours Fayetteville Works, North Carolina

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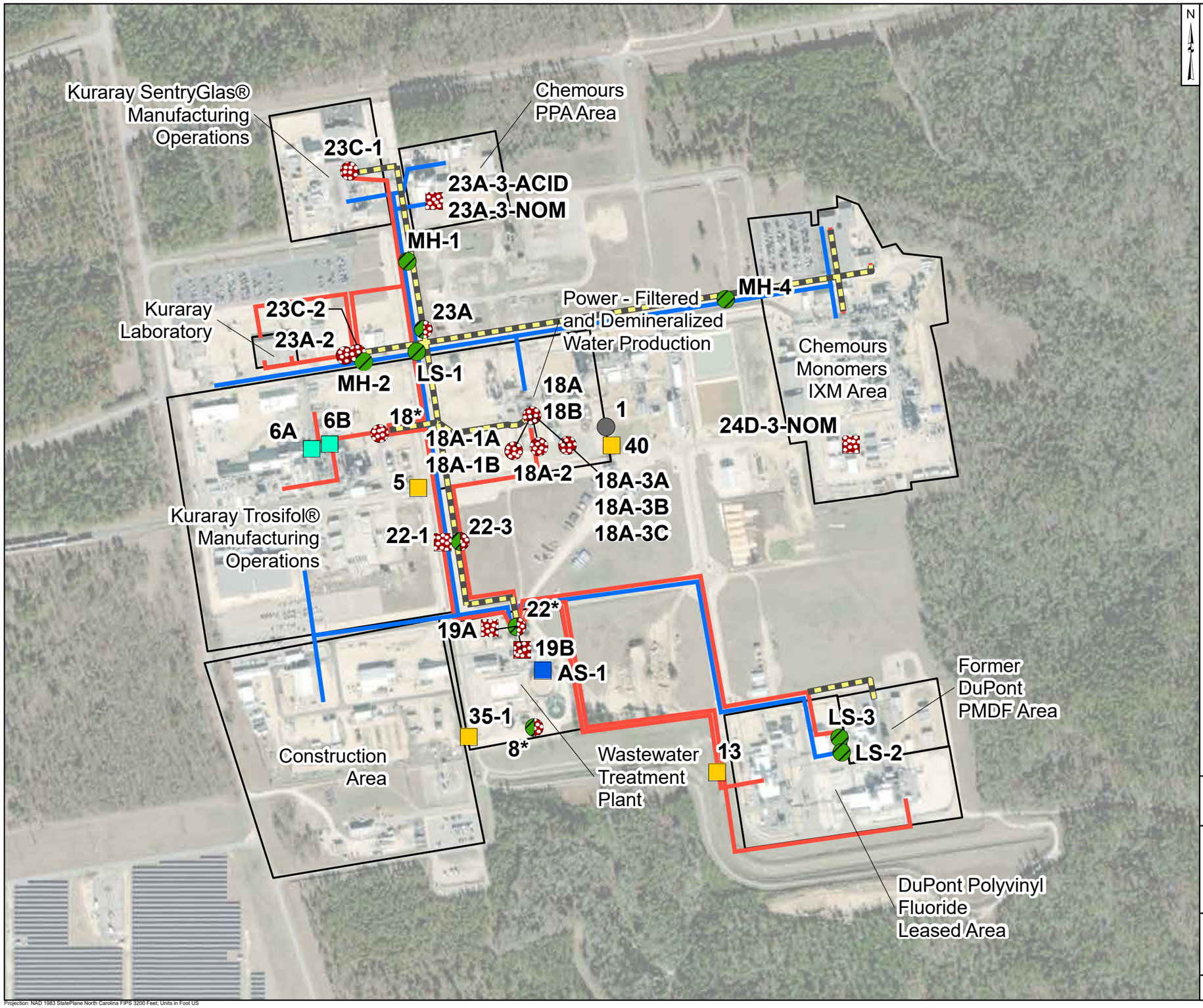
Figure **2**

Projection: NAD 1983 StatePlane North Carolina FIPS 3200 Feet; Units in Foot US



Legend

- Temporal Composite Sampling Location
- Grab Sampling Location
- Abandoned/Decommissioned Chemical Sewer
- Process Sewer
- Sanitary Sewer

Sample Location Category

- Intake
- Process wastewater
- Non-process wastewater
- Activated sludge
- Non-Contact Cooling Water (NCCW)
- Stormwater

Notes:

* - Existing flow meter locations.
1. Aerial imagery provided by Esri basemaps (2020).

500 250 0 500 Feet

Projection: NAD 1983 StatePlane North Carolina FIPS 3200 Feet; Units in Foot US

Process and Sanitary Sewer Network Sampling Locations

Chemours Fayetteville Works, North Carolina

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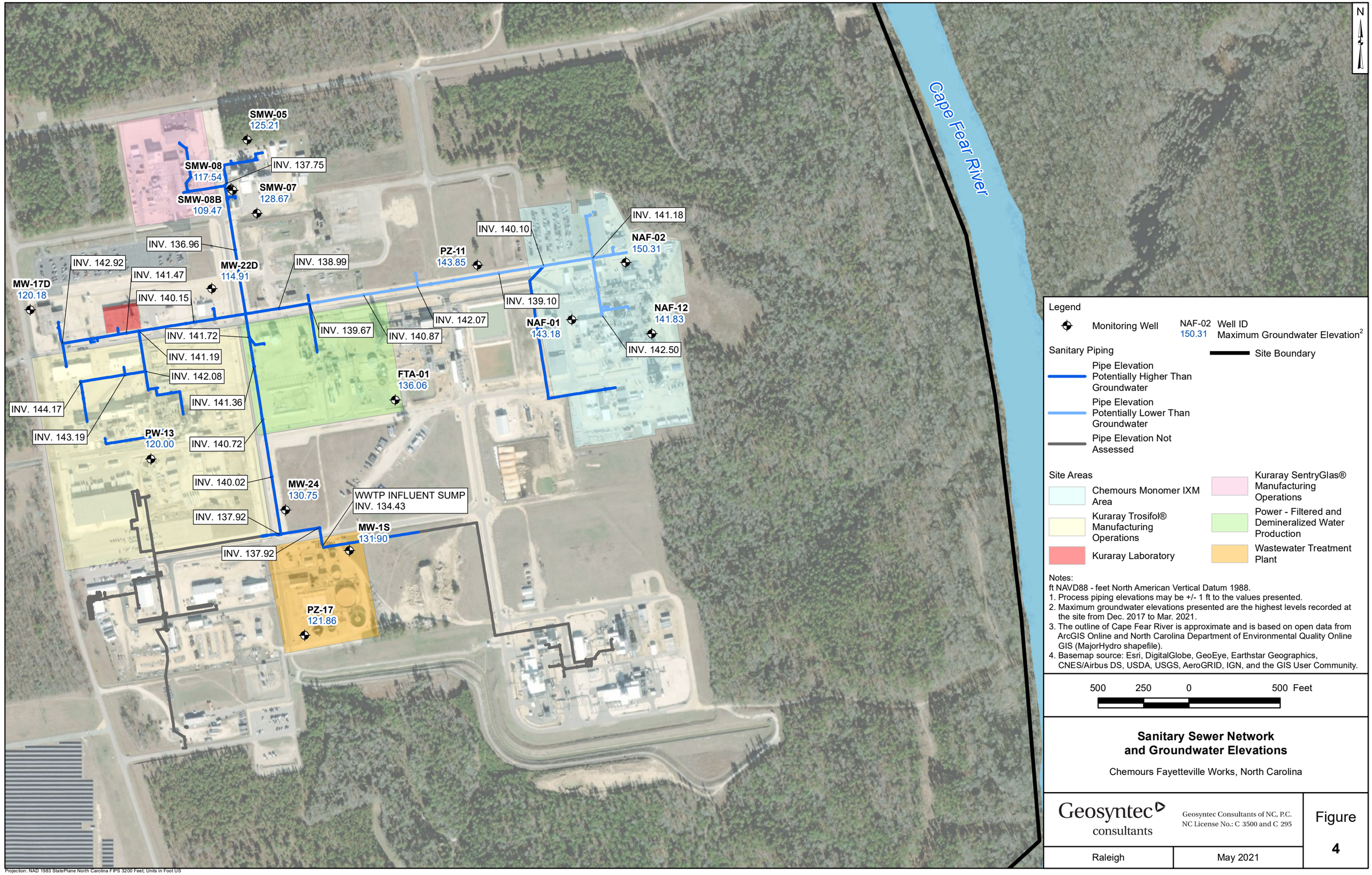
Figure 3



Sanitary Sewer Network and Groundwater Elevations

Chemours Fayetteville Works, North Carolina

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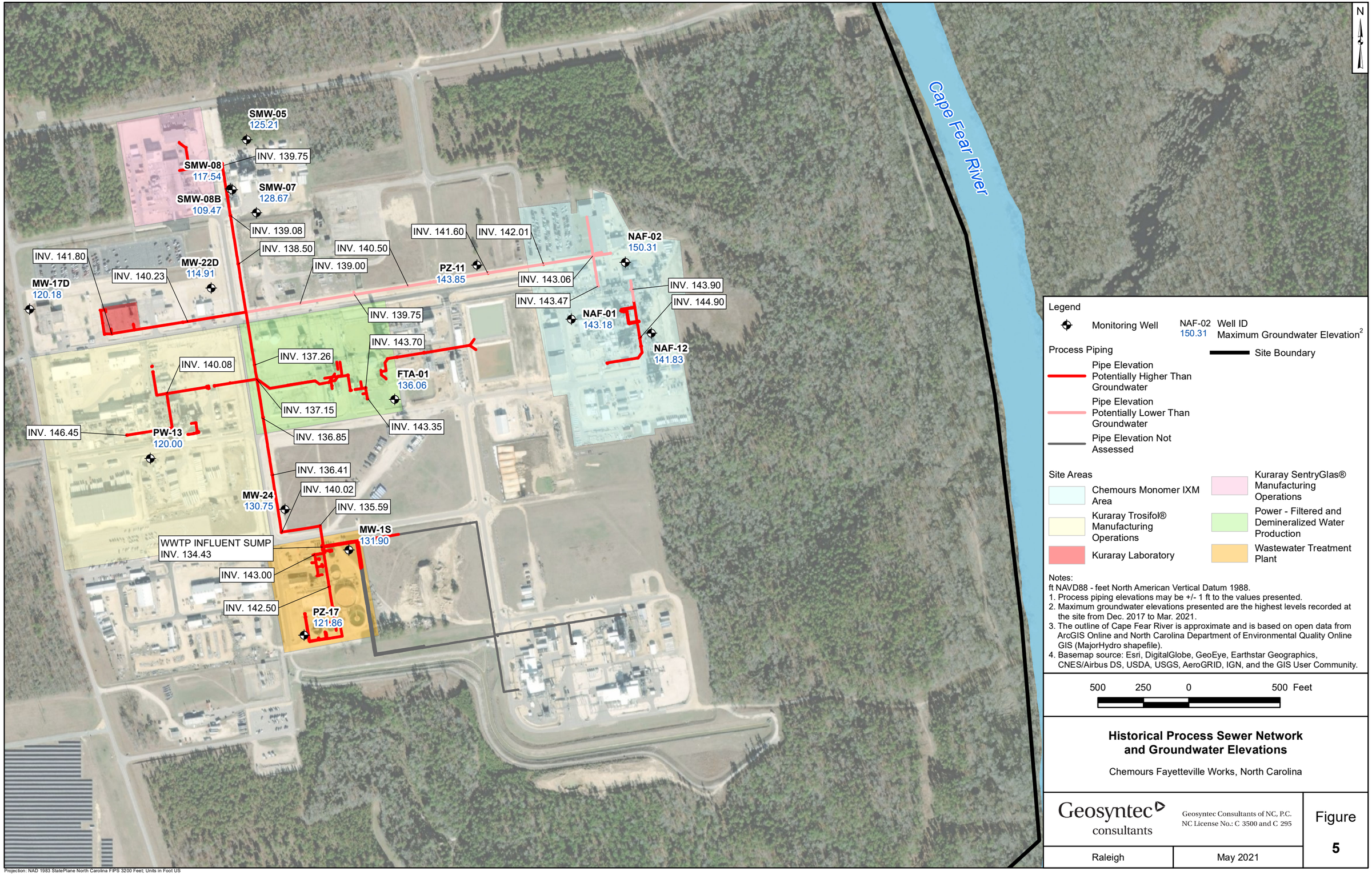
Figure 4



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NC License No.: C-3500 and C-295

Appendix A
Laboratory Analytical Data Review Narrative
(Full laboratory reports to be uploaded to OneDrive and data transferred to NCDEQ EQuIS database)

ADQM Data Review

Site: Chemours Fayetteville

Project: WWTP Sampling

Project Reviewer: Michael Aucoin

Sample Summary

Field Sample ID	Lab Sample ID	Sample Matrix	Filtered	Sample Date	Sample Time	Sample Purpose
WWTP-FBLK-030421	0321-782-001-1	Blank Water	N	03/04/2021	09:40	FB
WWTP-EQBLK-IS-030521	0321-782-002-1	Blank Water	N	03/05/2021	10:00	EB
WWTP-LS-1-24-030521	0321-782-003-1	Other liquid	N	03/05/2021	07:00	FS
WWTP-LS-2-24-030521	0321-782-006-1	Other liquid	N	03/05/2021	07:00	FS
WWTP-MH-1-24-030521	0321-782-007-1	Other liquid	N	03/05/2021	07:00	FS
WWTP-MH-2-24-030521	0321-782-008-1	Other liquid	N	03/05/2021	07:00	FS
WWTP-MH-3-030521	0321-782-009-1	OTHER LIQUID	N	03/05/2021	11:10	FS
WWTP-MH-24-4-030521	0321-782-010-1	Other liquid	N	03/05/2021	07:00	FS
WWTP-18A-1B-030621	0321-782-011-1	OTHER LIQUID	N	03/06/2021	06:31	FS
WWTP-18B-24-030521	0321-782-012-1	Other liquid	N	03/05/2021	07:00	FS
WWTP-LS-1-24-031221-D	0321-782-013-1	Other liquid	N	03/12/2021	07:00	DUP
WWTP-LS-1-24-031221	0321-782-014-1	Other liquid	N	03/12/2021	07:00	FS
WWTP-18B-5-031121	0321-782-015-1	OTHER LIQUID	N	03/11/2021	12:00	FS
WWTP-MH-3-17-031221	0321-782-016-1	OTHER LIQUID	N	03/12/2021	00:00	FS
WWTP-LS-2-24-031221	0321-782-017-1	Other liquid	N	03/12/2021	07:00	FS
WWTP-MH-1-5-031121	0321-782-018-1	OTHER LIQUID	N	03/11/2021	12:00	FS
WWTP-MH-4-24-031221	0321-782-019-1	Other liquid	N	03/12/2021	07:00	FS
WWTP-MH-2-24-031221	0321-782-020-1	Other liquid	N	03/12/2021	07:00	FS
WWTP-18A-1A-031121	0321-782-021-1	OTHER LIQUID	N	03/11/2021	15:30	FS
WWTP-18A-1B-031121	0321-782-022-1	OTHER LIQUID	N	03/11/2021	15:30	FS
WWTP-LS-3-PVF-031121	0321-782-023-1	OTHER LIQUID	N	03/11/2021	10:25	FS
WWTP-18B-24-031021	0321-782-024-1	Other liquid	N	03/10/2021	07:00	FS
WWTP-18B-24-031021-D	0321-782-027-1	Other liquid	N	03/10/2021	07:00	DUP
WWTP-FBLK-031021	0321-782-028-1	BLANK WATER	N	03/10/2021	12:00	FB
WWTP-EQBLK-IS-031021	0321-782-029-1	BLANK WATER	N	03/10/2021	12:05	EB
WWTP-MH-1-24-031021	0321-782-030-1	Other liquid	N	03/10/2021	07:00	FS
WWTP-MH-2-24-031021	0321-782-031-1	Other liquid	N	03/10/2021	07:00	FS
WWTP-MH-3-24-031021	0321-782-032-1	Other liquid	N	03/10/2021	07:00	FS
WWTP-MH-4-24-031021	0321-782-033-1	Other liquid	N	03/10/2021	07:00	FS
WWTP-LS-1-24-031021	0321-782-034-1	Other liquid	N	03/10/2021	07:00	FS
WWTP-LS-2-24-031021	0321-782-035-1	Other liquid	N	03/10/2021	07:00	FS
WWTP-18A-1B-030921	0321-782-036-1	OTHER LIQUID	N	03/09/2021	15:30	FS
WWTP-LS-3-PVF-031621	0321-782-037-1	OTHER LIQUID	N	03/16/2021	11:40	FS
WWTP-FBLK-031121	0321-782-038-1	BLANK WATER	N	03/11/2021	11:40	FB
WWTP-EQBLK-PP-031121	0321-782-039-1	BLANK WATER	N	03/11/2021	10:30	EB
WWTP-EQBLK-IS-031121	0321-782-040-1	BLANK WATER	N	03/11/2021	11:40	EB
WWTP-18A-1A-031021	0321-782-041-1	OTHER LIQUID	N	03/10/2021	11:00	FS
WWTP-LS-3-PVF-031821	0321-782-042-1	OTHER LIQUID	N	03/18/2021	09:45	FS
WWTP-MH-2-24-030521-D	0321-782-043-1	Other liquid	N	03/05/2021	07:00	DUP

* FS=Field Sample
  DUP=Field Duplicate
  FB=Field Blank
  EB=Equipment Blank
  TB=Trip Blank

Analytical Protocol

Laboratory	Method	Parameters
Enthalpy, Wilmington, NC	PFAS by Isotope Dilution	PFAS – Table 3+ (20 Compounds)

ADQM Data Review Checklist

Item	Description	Yes	No*	DVM Narrative Report	Laboratory Report	Exception Report (ER) #
A	Did samples meet laboratory acceptability requirements upon receipt (i.e., intact, within temperature, properly preserved, and no headspace where applicable)?	X				
B	Were samples received by the laboratory in agreement with the associated chain of custody?	X				
C	Was the chain of custody properly completed by the laboratory and/or field team?	X				
D	Were samples prepped/analyzed by the laboratory within method holding times?	X				
E	Were QA/QC criteria met by the laboratory (method blanks, LCSs/LCSDs, MSs/MSDs, PDSs, SDs, duplicates/replicates, surrogates, total/dissolved differences/RPDs, sample results within calibration range)?	X				
F	Were field/equipment/trip blanks (if collected) detected at levels not requiring sample data qualification?	X				
G	Were all data usable and not R qualified?	X				
ER#	**Description: Some results are qualified J as estimated since the concentration is between the method detection limit and practical quantitation limit. See the DVM narrative report.**					
Other QA/QC Items to Note:						

* See DVM Narrative Report, Lab Report, or ER # for further details as indicated.

The electronic data submitted for this project was reviewed via the Data Verification Module (DVM) process. Overall, the data is acceptable for use without qualification, except as noted on the attached DVM Narrative Report.

The lab reports due to a large page count are stored on a network shared drive and are available to be posted on external shared drives, or on a flash drive.

Data Verification Module (DVM)

The DVM is an internal review process used by the ADQM group to assist with the determination of data usability. The electronic data deliverables received from the laboratory are loaded into the Locus EIM™ database and processed through a series of data quality checks, which are a combination of software (Locus EIM™ database Data Verification Module (DVM)) and manual reviewer evaluations. The data is evaluated against the following data usability checks:

- Field and laboratory blank contamination
- US EPA hold time criteria
- Missing Quality Control (QC) samples
- Matrix spike (MS)/matrix spike duplicate (MSD) recoveries and the relative percent differences (RPDs) between these spikes
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) recoveries and the RPD between these spikes
- Surrogate spike recoveries for organic analyses
- Difference/RPD between field duplicate sample pairs
- RPD between laboratory replicates for inorganic analyses
- Difference/percent difference between total and dissolved sample pairs

There are two qualifier fields in EIM:

Lab Qualifier is the qualifier assigned by the lab and may not reflect the usability of the data. This qualifier may have many different meanings and can vary between labs and over time within the same lab. Please refer to the laboratory report for a description of the lab qualifiers. As they are lab descriptors they are not to be used when evaluating the data.

Validation Qualifier is the 3rd party formal validation qualifier if this was performed. Otherwise this field contains the qualifier resulting from the ADQM DVM review process. This qualifier assesses the usability of the data and may not equal the lab qualifier. The DVM applies the following data evaluation qualifiers to analysis results, as warranted:

Qualifier	Definition
B	Not detected substantially above the level reported in the laboratory or field blanks.
R	Unusable result. Analyte may or may not be present in the sample.
J	Analyte present. Reported value may not be accurate or precise.
UJ	Not detected. Reporting limit may not be accurate or precise.

The **Validation Status Code** field is set to “DVM” if the ADQM DVM process has been performed. If the DVM has not been run, the field will be blank.

If the DVM has been run (**Validation Status Code** equals “DVM”), use the **Validation Qualifier.**

If the data has been validated by a third party, the field **“Validated By”** will be set to the validator (e.g., ESI for Environmental Standards, Inc.).

DVM Narrative Report

Site: Fayetteville **Sampling Program:** WWTP Sampling **Validation Options:** LABSTATS

Validation Reason The result is estimated since the concentration is between the method detection limit and practical quantitation limit.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
WWTP-MH-1-5-031121	03/11/2021	0321-782-018-1	R-PSDA	0.123	UG/L	MDL	0.025	0.139	J	PFAS 20 Method B.EXP		NPW
WWTP-MH-1-5-031121	03/11/2021	0321-782-018-1	PEPA	0.0301	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-1-5-031121	03/11/2021	0321-782-018-1	PFMOAA	0.0492	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-2-24-030521	03/05/2021	0321-782-008-1	R-EVE	0.0386	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-2-24-030521	03/05/2021	0321-782-008-1	PEPA	0.0297	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-2-24-030521	03/05/2021	0321-782-008-1	PFO2HxA	0.028	ug/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-MH-2-24-030521	03/05/2021	0321-782-008-1	PFMOAA	0.0437	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-2-24-030521-D	03/05/2021	0321-782-043-1	PFMOAA	0.0274	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-2-24-031021	03/10/2021	0321-782-031-1	Hfpo Dimer Acid	0.0394	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-MH-2-24-031021	03/10/2021	0321-782-031-1	Hydrolyzed PSDA	0.0463	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-MH-2-24-031021	03/10/2021	0321-782-031-1	PFMOAA	0.0315	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-2-24-031221	03/12/2021	0321-782-020-1	PS Acid	0.0403	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-2-24-031221	03/12/2021	0321-782-020-1	PFMOAA	0.0342	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-24-4-030521	03/05/2021	0321-782-010-1	PES	0.0433	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-24-4-030521	03/05/2021	0321-782-010-1	R-PSDCA	0.0356	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-3-030521	03/05/2021	0321-782-009-1	PEPA	0.032	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-3-030521	03/05/2021	0321-782-009-1	PFO3OA	0.0319	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-3-17-031221	03/12/2021	0321-782-016-1	PFO4DA	0.0931	ug/L	MDL	0.075	0.1	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-3-17-031221	03/12/2021	0321-782-016-1	Hydro-EVE Acid	0.0351	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-MH-3-24-031021	03/10/2021	0321-782-032-1	R-EVE	0.0454	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-3-24-031021	03/10/2021	0321-782-032-1	PEPA	0.0347	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-3-24-031021	03/10/2021	0321-782-032-1	PFO3OA	0.0394	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW

Site: Fayetteville **Sampling Program:** WWTP Sampling **Validation Options:** LABSTATS

Validation Reason The result is estimated since the concentration is between the method detection limit and practical quantitation limit.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
WWTP-MH-4-24-031021	03/10/2021	0321-782-033-1	R-PSDCA	0.0347	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-4-24-031021	03/10/2021	0321-782-033-1	PFO4DA	0.0958	ug/L	MDL	0.075	0.1	J	PFAS 20 Method A.EXP		NPW
WWTP-MH-4-24-031221	03/12/2021	0321-782-019-1	R-PSDCA	0.0339	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-18A-1A-031121	03/11/2021	0321-782-021-1	R-EVE	0.0466	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-18A-1B-030621	03/06/2021	0321-782-011-1	PMPA	0.0312	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-18A-1B-030621	03/06/2021	0321-782-011-1	Hydrolyzed PSDA	0.0314	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-18A-1B-030921	03/09/2021	0321-782-036-1	PMPA	0.0295	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-18A-1B-031121	03/11/2021	0321-782-022-1	Hfpo Dimer Acid	0.0274	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-18A-1B-031121	03/11/2021	0321-782-022-1	PFO2HxA	0.0402	ug/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-18B-24-030521	03/05/2021	0321-782-012-1	PEPA	0.0434	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-18B-24-031021	03/10/2021	0321-782-024-1	Hfpo Dimer Acid	0.034	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-18B-24-031021	03/10/2021	0321-782-024-1	Hydrolyzed PSDA	0.0257	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-18B-24-031021	03/10/2021	0321-782-024-1	PFO2HxA	0.0259	ug/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-18B-24-031021-D	03/10/2021	0321-782-027-1	Hydrolyzed PSDA	0.029	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-18B-24-031021-D	03/10/2021	0321-782-027-1	PFO2HxA	0.0263	ug/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-18B-5-031121	03/11/2021	0321-782-015-1	PEPA	0.0398	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-LS-1-24-030521	03/05/2021	0321-782-003-1	NVHOS, Acid Form	0.0324	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-LS-1-24-031021	03/10/2021	0321-782-034-1	Hydro-EVE Acid	0.0367	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-LS-1-24-031021	03/10/2021	0321-782-034-1	NVHOS, Acid Form	0.0421	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-LS-1-24-031221	03/12/2021	0321-782-014-1	EVE Acid	0.0296	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-LS-1-24-031221	03/12/2021	0321-782-014-1	NVHOS, Acid Form	0.0298	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-LS-1-24-031221-D	03/12/2021	0321-782-013-1	EVE Acid	0.0267	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-LS-1-24-031221-D	03/12/2021	0321-782-013-1	Hydro-PS Acid	0.0473	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW

Site: Fayetteville **Sampling Program:** WWTP Sampling **Validation Options:** LABSTATS

Validation Reason The result is estimated since the concentration is between the method detection limit and practical quantitation limit.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
WWTP-LS-2-24-030521	03/05/2021	0321-782-006-1	Hydrolyzed PSDA	0.0423	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-LS-2-24-030521	03/05/2021	0321-782-006-1	R-EVE	0.0273	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-LS-2-24-031021	03/10/2021	0321-782-035-1	PFO2HxA	0.0469	ug/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-LS-2-24-031021	03/10/2021	0321-782-035-1	PFMOAA	0.032	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-LS-2-24-031221	03/12/2021	0321-782-017-1	Hydrolyzed PSDA	0.0395	UG/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-LS-2-24-031221	03/12/2021	0321-782-017-1	R-EVE	0.0391	UG/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW
WWTP-LS-2-24-031221	03/12/2021	0321-782-017-1	PFO2HxA	0.0421	ug/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-MH-1-24-030521	03/05/2021	0321-782-007-1	PFO2HxA	0.0302	ug/L	MDL	0.025	0.05	J	PFAS 20 Method B.EXP		NPW
WWTP-MH-1-24-031021	03/10/2021	0321-782-030-1	PFMOAA	0.0439	ug/L	MDL	0.025	0.05	J	PFAS 20 Method A.EXP		NPW

ADQM Data Review

Site: Chemours Fayetteville

Project: Stormwater Sampling 5/21 (select lot)

Project Reviewer: Michael Aucoin

Sample Summary

Field Sample ID	Lab Sample ID	Sample Matrix	Filtered	Sample Date	Sample Time	Sample Purpose
STW-LOC-23C-1-050421	320-73327-5	Surface Water	N	05/04/2021	14:10	FS
STW-LOC-23C-1-050421-D	320-73327-6	Surface Water	N	05/04/2021	14:10	DUP

* FS=Field Sample
  DUP=Field Duplicate
  FB=Field Blank
  EB=Equipment Blank
  TB=Trip Blank

Analytical Protocol

Laboratory	Method	Parameters
TAL – Sacramento	Cl. Spec. Table 3 Compound SOP	21 compounds incl HFPO-DA

ADQM Data Review Checklist

Item	Description	Yes	No*	DVM Narrative Report	Laboratory Report	Exception Report (ER) #
A	Did samples meet laboratory acceptability requirements upon receipt (i.e., intact, within temperature, properly preserved, and no headspace where applicable)?	X				
B	Were samples received by the laboratory in agreement with the associated chain of custody?	X				
C	Was the chain of custody properly completed by the laboratory and/or field team?	X				
D	Were samples prepped/analyzed by the laboratory within method holding times?	X				
E	Were QA/QC criteria met by the laboratory (method blanks, LCSs/LCSDs, MSs/MSDs, PDSs, SDs, duplicates/replicates, surrogates, total/dissolved differences/RPDs, sample results within calibration range)?	X				
F	Were field/equipment/trip blanks (if collected) detected at levels not requiring sample data qualification?	X				
G	Were all data usable and not R qualified?	X				
ER#	**Description: Some results are qualified J as estimated since the concentration is between the method detection limit and practical quantitation limit. See the DVM narrative report.**					
Other QA/QC Items to Note:						

* See DVM Narrative Report, Lab Report, or ER # for further details as indicated.

The electronic data submitted for this project was reviewed via the Data Verification Module (DVM) process. Overall, the data is acceptable for use without qualification.

The lab reports due to a large page count are stored on a network shared drive and are available to be posted on external shared drives, or on a flash drive.

Data Verification Module (DVM)

The DVM is an internal review process used by the ADQM group to assist with the determination of data usability. The electronic data deliverables received from the laboratory are loaded into the Locus EIM™ database and processed through a series of data quality checks, which are a combination of software (Locus EIM™ database Data Verification Module (DVM)) and manual reviewer evaluations. The data is evaluated against the following data usability checks:

- Field and laboratory blank contamination
- US EPA hold time criteria
- Missing Quality Control (QC) samples
- Matrix spike (MS)/matrix spike duplicate (MSD) recoveries and the relative percent differences (RPDs) between these spikes
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) recoveries and the RPD between these spikes
- Surrogate spike recoveries for organic analyses
- Difference/RPD between field duplicate sample pairs
- RPD between laboratory replicates for inorganic analyses
- Difference/percent difference between total and dissolved sample pairs

There are two qualifier fields in EIM:

Lab Qualifier is the qualifier assigned by the lab and may not reflect the usability of the data. This qualifier may have many different meanings and can vary between labs and over time within the same lab. Please refer to the laboratory report for a description of the lab qualifiers. As they are lab descriptors they are not to be used when evaluating the data.

Validation Qualifier is the 3rd party formal validation qualifier if this was performed. Otherwise this field contains the qualifier resulting from the ADQM DVM review process. This qualifier assesses the usability of the data and may not equal the lab qualifier. The DVM applies the following data evaluation qualifiers to analysis results, as warranted:

Qualifier	Definition
B	Not detected substantially above the level reported in the laboratory or field blanks.
R	Unusable result. Analyte may or may not be present in the sample.
J	Analyte present. Reported value may not be accurate or precise.
UJ	Not detected. Reporting limit may not be accurate or precise.

The **Validation Status Code** field is set to “DVM” if the ADQM DVM process has been performed. If the DVM has not been run, the field will be blank.

If the DVM has been run (**Validation Status Code** equals “DVM”), use the **Validation Qualifier.**

If the data has been validated by a third party, the field **“Validated By”** will be set to the validator (e.g., ESI for Environmental Standards, Inc.).

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DVM Narrative Report

Site: Fayetteville **Sampling Program:** Stormwater Sampling 5/21 (select lot) **Validation Options:** LABSTATS

The electronic data submitted for this project was reviewed via the DVM process. The data is acceptable for use without qualification.

ADQM Data Review

Site: Chemours Fayetteville

Project: Stormwater Sampling 4/21 (select lot)

Project Reviewer: Michael Aucoin

Sample Summary

Field Sample ID	Lab Sample ID	Sample Matrix	Filtered	Sample Date	Sample Time	Sample Purpose
STW-LOC-23C-2-042621	320-72886-1	Surface Water	N	04/26/2021	15:45	FS
STW-LOC-23C-2-042621-D	320-72886-2	Surface Water	N	04/26/2021	15:45	DUP
STW-LOC-FB-042621	320-72886-3	Blank Water	N	04/26/2021	16:00	FB
STW-LOC-TB-042621	320-72886-4	Blank Water	N	04/26/2021	16:30	TB
STW-LOC-EB-042621	320-72886-5	Blank Water	N	04/26/2021	16:35	EB

* FS=Field Sample
  DUP=Field Duplicate
  FB=Field Blank
  EB=Equipment Blank
  TB=Trip Blank

Analytical Protocol

Laboratory	Method	Parameters
TAL – Sacramento	Cl. Spec. Table 3 Compound SOP	21 compounds incl HFPO-DA

ADQM Data Review Checklist

Item	Description	Yes	No*	DVM Narrative Report	Laboratory Report	Exception Report (ER) #
A	Did samples meet laboratory acceptability requirements upon receipt (i.e., intact, within temperature, properly preserved, and no headspace where applicable)?	X				
B	Were samples received by the laboratory in agreement with the associated chain of custody?	X				
C	Was the chain of custody properly completed by the laboratory and/or field team?	X				
D	Were samples prepped/analyzed by the laboratory within method holding times?	X				
E	Were QA/QC criteria met by the laboratory (method blanks, LCSs/LCSDs, MSs/MSDs, PDSs, SDs, duplicates/replicates, surrogates, total/dissolved differences/RPDs, sample results within calibration range)?		X	X		
F	Were field/equipment/trip blanks (if collected) detected at levels not requiring sample data qualification?	X				
G	Were all data usable and not R qualified?	X				
ER#	**Description:**					
Other QA/QC Items to Note:						

* See DVM Narrative Report, Lab Report, or ER # for further details as indicated.

The electronic data submitted for this project was reviewed via the Data Verification Module (DVM) process. Overall the data is acceptable for use without qualification, except as noted on the attached DVM Narrative Report.

The lab reports due to a large page count are stored on a network shared drive and are available to be posted on external shared drives, or on a flash drive.

Data Verification Module (DVM)

The DVM is an internal review process used by the ADQM group to assist with the determination of data usability. The electronic data deliverables received from the laboratory are loaded into the Locus EIM™ database and processed through a series of data quality checks, which are a combination of software (Locus EIM™ database Data Verification Module (DVM)) and manual reviewer evaluations. The data is evaluated against the following data usability checks:

- Field and laboratory blank contamination
- US EPA hold time criteria
- Missing Quality Control (QC) samples
- Matrix spike (MS)/matrix spike duplicate (MSD) recoveries and the relative percent differences (RPDs) between these spikes
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) recoveries and the RPD between these spikes
- Surrogate spike recoveries for organic analyses
- Difference/RPD between field duplicate sample pairs
- RPD between laboratory replicates for inorganic analyses
- Difference/percent difference between total and dissolved sample pairs

There are two qualifier fields in EIM:

Lab Qualifier is the qualifier assigned by the lab and may not reflect the usability of the data. This qualifier may have many different meanings and can vary between labs and over time within the same lab. Please refer to the laboratory report for a description of the lab qualifiers. As they are lab descriptors they are not to be used when evaluating the data.

Validation Qualifier is the 3rd party formal validation qualifier if this was performed. Otherwise this field contains the qualifier resulting from the ADQM DVM review process. This qualifier assesses the usability of the data and may not equal the lab qualifier. The DVM applies the following data evaluation qualifiers to analysis results, as warranted:

Qualifier	Definition
B	Not detected substantially above the level reported in the laboratory or field blanks.
R	Unusable result. Analyte may or may not be present in the sample.
J	Analyte present. Reported value may not be accurate or precise.
UJ	Not detected. Reporting limit may not be accurate or precise.

The **Validation Status Code** field is set to “DVM” if the ADQM DVM process has been performed. If the DVM has not been run, the field will be blank.

If the DVM has been run (**Validation Status Code** equals “DVM”), use the **Validation Qualifier.**

If the data has been validated by a third party, the field **“Validated By”** will be set to the validator (e.g., ESI for Environmental Standards, Inc.).

DVM Narrative Report

Site: Fayetteville **Sampling Program:** Stormwater Sampling 4/21 **Validation Options:** LABSTATS

Validation Reason High relative percent difference (RPD) observed between field duplicate and parent sample. The reported result may be imprecise.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
STW-LOC-23C-2-042621-D	04/26/2021	320-72886-2	R-PSDA	0.0086	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep